



National Broadcasting and Telecommunications Commission (NBTC)



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# NBTC

ANNUAL REPORT

# 2014

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Communications are an essential factor in national development, prosperity and security. With regard to the continuously changing situations in the world, prompt communications is highly important. All parties and all agencies related to national communications should therefore cooperate with one another and share their achievements closely and harmoniously. Most importantly they should research deeply and widely into modern knowledge and technologies, select good and certainly effective parts and apply them wisely and proactively in the way that suits the status and condition of our country in order that national communications can improve to the fullest and perfectly facilitate the economic and social development as well as the stability of the nation.

Chitralada Villa

15 July 1983

*(The Royal Proclamation was bestowed on the occasion of the centennial of the Post and Telegraph Department and the National Communications Day on 4 August 1983)*









## Preface

The Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010), Article 76 has stipulated that the National Broadcasting and Telecommunications Commission (NBTC) must prepare an annual report, elaborating its performance in management of radio frequency, broadcasting and telecommunications services business operations, work plans and results, as the case may be, and future work plans. The annual report must be submitted to the Cabinet and the Parliament within one hundred and twenty days as from the ending date of each calendar year, and shall be disclosed to the general public for acknowledgement.

The NBTC has thus prepared the NBTC Annual Report 2013 which would be submitted to the Cabinet, the House of Representatives and the Senate and disclosed to the general public for acknowledgement. This report described power and duties of the NBTC, the Broadcasting Commission (BC), the Telecommunications Commission (TC) and the Office of NBTC, key activities and performance of NBTC throughout the year which are all important for the public such as the transition to digital audio broadcasting and television broadcasting transmission, the preparation of auctioning the 900 MHz spectrum and the 1800 MHz spectrum, the consumer protection in broadcasting and telecommunications businesses, the international affairs in broadcasting and telecommunications services, and the relationship to the Government and Parliament. The report has also included key performance of the NBTC, BC, TC and Office of NBTC, report on market environment and competition in broadcasting, television and telecommunications businesses, trend on broadcasting, television and telecommunications industries in 2015, the 2014 budget management, as well as problems and obstacles arising from the broadcasting, television and telecommunications operation in the previous year.

The NBTC believes that this report will provide useful information for monitoring and investigating the performance of the NBTC on spectrum management, broadcasting and telecommunications business regulation in the past year, which is in accordance with the purpose of the laws, including the benefits to related parties, and the general public.

The National Broadcasting and  
Telecommunications Commission (NBTC)  
March 2015





## Message

from the Chairman of  
the National Broadcasting  
and Telecommunications  
Commission (NBTC)



The National Broadcasting and Telecommunications Commission (NBTC) has commenced its 3<sup>rd</sup> anniversary performance on 7 October 2014. Throughout these period, the NBTC and the staff of the Office of NBTC has committed to lay down the foundation of radio frequency allocation and to regulate the businesses operation of Thailand to be on par with civilized countries, as well as to manage the use of the spectrum which is a national communication resource for public interests to be more efficient and beneficial to the nation and people. Particularly, in the year 2014, there was a number of political changes which put a direct impact on the regulatory direction and promotion of entrepreneurship that need to be done in line with the spirit of the laws and in accordance with the situation of the country in all aspects.

For the organization management, the NBTC focused on the developing Office of the NBTC to become an organization of excellence of regulation in the region by adhering to good governance in the management of human resources, budgeting, finance, asset and supplies, to be most efficient and effective, transparent and accountable. The NBTC also promoted the development of employees' capabilities to be able to support NBTC's mission and use new technologies wisely, meet the public and users' satisfaction and expectation, and establish national standard of good regulation.

The NBTC next year plan in organization development will be focusing on the preparation to support the government's policy on digital economy to ensure that the spectrum management and the regulation of broadcasting and telecommunications businesses will be beneficial to country's sustainable development in both economic and social, education, culture, national security and public interests. This will help enhance potentiality and readiness of the country to become a part of the ASEAN Economic Community in late 2015 as well. The preparation will be done by integrating structure of the Office of NBTC, budget and personnel, including adjusting related rules and regulation to support the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting, Television and Telecommunications Services B.E.2553 (2010) which is in the process of revision to ensure that the implementation of the NBTC and the Office of NBTC is more efficient.





For the role in spectrum management, the NBTC has already set up Radio Frequency Plan for Digital Terrestrial Television Services and Implementation Plan for Mobile Television Transmission System. Besides, the criteria for the spectrum use for disaster prevention and mitigation in case of emergency and disasters has also been set up as well as the frequency coordination along cross-borders with neighboring countries to prevent and resolve frequency interference in the broadcasting and telecommunications services which may occur in cross-border areas.

In regulating radio broadcasting and television services, apart from the issuance of licenses for 24 national commercial digital television channels which have been launched the digital transmission since 1 April 2014 and having supported Thai people to switch over to the digital terrestrial television broadcast system by providing digital TV coupons to 4.645 million households in 21 provinces for purchasing Set-top Box or using as a discount for purchasing transceiver equipment from companies participating in the project in the first phase, the NBTC has also established the Action Plan which emphasized on regulating to ensure that the radiocommunications station are installed throughout the country in order to provide digital terrestrial television network service, expand viewing coverage area so that the public are able to receive signals from terrestrial television systems equally. The distribution of digital TV coupons will be further accelerated to 141 million households as targeted.

In regulating telecommunications business, after 3G technology has been implemented in 2011, the NBTC has handed over the auctioned money to the government totally 33,444.53 million baht (or 35% of all auction money) and the rest will be delivered in the year 2015. In addition, the International Telecommunication Union (ITU) has published in its 2014 annual report on Measuring Information Society that the implementation of 3G of Thailand has resulted in a growth rate of internet usage which ranked No.1 in the world, and rose up from ranking No.105 in 2012 to No.71 in 2013. Therefore, in setting up the action plan in the year 2015, the NBTC will focus on the 1800 MHz and 900 MHz spectrum auction so that Thailand could develop 4G technology system to support the needs of the public for internet use which is rapidly increased and to support the government's policy on digital economy as well. Also, the NBTC, in operation with related organizations, will accelerate the integration of cable/fiber optic network to succeed as soon as possible.

On behalf of the NBTC, I would like to thank you all the Management and staff of the Office of NBTC who contributed their effort to support the work of NBTC throughout the year 2014 and also thank all stakeholders who provided their good support and cooperation to the NBTC. I am confident that with the power of collaboration and commitment to performing duties at full capacity under the good governance and spirit of law, the broadcasting and telecommunications businesses will be prosper and sustainable exist for the utmost benefit of the public.

Air Chief Marshal

(Thares Punsri)

Chairman of the National Broadcasting and  
Telecommunications Commission





## Message

from the Vice-Chairman of  
the National Broadcasting  
and Telecommunications  
Commission (NBTC)  
and Chairman of the Broadcasting  
Commission (BC)



The duty of the NBTC in Radio and television broadcasting in 2014 has continued from the operation in 2013 especially in the broadcasting business license issuance, the switch over to digital system, and the rights of consumers' protection. Despite the challenges of political change which has its impact on the operation in radio and television broadcasting, the NBTC action in such circumstances has gone well. The progress of its key actions is as follows:

### 1. The Issuance of Radio and Television Broadcasting Business License

Under the rule and regulation which is an addition to the Announcement of National Council for Peace and Order (NCPO), the NBTC has reviewed its process of licensing all radio and television broadcasting by accelerating the licensing process of television broadcasting which consists of 6 existing free TV channels, 24 digital TV channels, 500 - 600 satellite and cable TV channels to be completely broadcasted within a short period of time. For the unauthorized broadcasting services, the NBTC has taken action by issuing licences to radio broadcasting operators for trial operation of approximately 5,000 - 6,000 stations throughout the country. The action also included the investigation of licensing, having, using, installing radiocommunications stations according to the Radiocommunications Act 1955 where more than 90% of the stations have met the requirement of the technical standards and operated in line with the Announcement of the NCPO.

### 2. The Television Digital Switch Over

The switchover from analogue to digital television broadcasting in 2014 has been carried out in an untroubled manner. As a consequence, the NBTC has issued 24 licenses in the category of commercial services to the winner of the spectrum auction for providing digital television services in April 2014 and those licensees have started their trial process and broadcasted since May 2014. In addition, the NBTC has supported the public for the transition to the viewing of digital terrestrial television so that they are able to thoroughly access to the services by distributing each household a 690 baht discount coupon and they can take these coupons to exchange for Set-top Boxes (STB) to convert analog television receiver to digital system.





### 3. Consumer Protection

The NBTC has resolved the complaints from consumers successively whether the complaints on false advertising of food and drug, or content which is inappropriate, violent and contrary to good morals and public order of the country. The NBTC also created a complaint process that facilitates the public to easily access, set up an appropriate content regulatory process, as well as made consideration and judgment on a fair and transparent basis.

### 4. Promotion of Freedom of Communication

To establish a proper rule and protect the rights of the people to receive television services, the NBTC has implemented the NBTC's Notification on Criteria for Broadcasting Major Television Program in Public Broadcasting Service 2012 which will enable the public to view the live World Cup without any charge. Eventually, the Supreme Administrative Court has confirmed that such rule is universal, accurate, and considered as the way to protect the rights of citizens.

The year 2014 is the time of transformation and creating challenges of the NBTC. Thus, its operation needs compromise and deliberation in order to support the broadcasting regulation successfully. In the years ahead, the major challenges are likely to be "how to resolve the radio and television for not being used as a tool for political exploitation" and "how to establish a process of digital television switch over that is beneficial to the public as a whole".

In my final note, I would like to thank the Management, staff and employees of the Office of NBTC for their fully contribution in the year 2014. My sincere thanks also go to all parties who took part in the operation of the NBTC and made the operation done successfully with same goal of developing the broadcasting and telecommunications businesses to be more progressive, fair and beneficial to the public in overall.

Colonel

(Natee Sukonrat)

Vice-Chairman of NBTC Commission  
Chairman of Broadcasting Commission





## Message

from the Vice-Chairman of  
the National Broadcasting and  
Telecommunications Commission  
(NBTC) and Chairman of  
the Telecommunications Commission (TC)



In the year 2014, the Telecommunications Commission (TC) has regulated and followed up the telecommunications business operation on international mobile telecommunications in frequency range of 2.1 GHz (3G) to be complied with the licensing conditions and the operation has been successful. That is, after the implementation of 3G services on the 2.1 GHz frequency band in Thailand, the rate of 3G service usage through mobile phones has increased and it resulted in the increase of mobile internet usage and it is consistent with the Annual Report of Indicators for Measuring the Information Society 2014 of the International Telecommunication Union (ITU) which indicated that Thailand's growth rate of Internet use is 1 of 10 of world's ranking and it made Thailand's growth rate of Internet use ranked 1<sup>st</sup> position of the world by moving up from 105<sup>th</sup> in the year 2012 to 71<sup>st</sup> position. It also improved the ICT development of Thailand which can be seen from the position of ICT Development Index (IDI) of Thailand that moved up from 91<sup>st</sup> to 81<sup>st</sup> in 2013 among 166 countries around the world and it ranked in top level of the Asia-Pacific countries. These growth rates demonstrated the Thailand's potential in communications which has been rapidly developed and there are opportunities to develop progressively in the future.

In this year, the TC has done several major operations which included the preparation of the 1800 MHz and 900 MHz Spectrum Auction for the development of 4G system to support the needs of internet use of the public. In consumer protection, the TC has encouraged service users to protect their rights, keep their own mobile phone number, and save their money by having mobile phone SIM registered to verify the ownership of pre-paid mobile phone number through "2 Shots (2 Shae)" application. The mobile phone SIM registration also helps facilitate the users to refund their money after the termination of service, and reduce the problem of SIM card misuse in crime. In addition, the NBTC has resolved the SMS Spam problem for consumers by establishing a channel for SMS service cancellation or \*137 where the users in all mobile network could press \*137 without any charge. For data roaming problem-resolving, the NBTC has made campaigns to raise users' awareness of their rights to terminate international data roaming at anytime by establishing new channel of service termination or \*106# which is also free of charge. The operation of the TC also included resolving complaints of mobile phone service users who were charged for buying online games items via mobile phone, and knowledge building on communications in disaster situations and emergencies, etc.



In 2015, the TC will speed up its operation to accomplish their major plans, such as the spectrum auctions for 1800 MHz and 900 MHz frequency bands, so that the 3G services could be developed to 4G services. It is also considered as the establishment of national vital infrastructure, the support of government's Digital Economy policy to provide mobile networks and mobile Internet for the public access throughout the country, development for other benefits, such as education system, human resources development, where knowledge sharing and transfer are encouraged to help increase competition's potential and capability of the country. This includes the integration of the cable network, in cooperation with the relevant authorities, so that they are able to expand their networks as scheduled, the preparation of number auction to raise money for state's revenue, as well as the campaign on prepaid mobile phones registration so that the users can verify their ownership of the numbers, the registration for self-identification to access public WiFi internet, the continuation of consumer protection implementation to resolve the problem arising from the provision of telecommunications services and prevent the users from being exploited, the feasibility study of using mobile phone technology for hazard alert, and so on.

On behalf of the TC, I wish to thank all parties who provided their great contribution to the development of telecommunication business of Thailand and make the TC's operation done successfully. I reaffirm that the TC will be concentrated in our duties and action with integrity in order to develop and regulate telecommunications services so that the telecommunications infrastructure will be expanded in all areas of the country, and Thai people are able to equally access information and knowledge body. This will help developing national economic and society including the telecommunications industry consecutively with a view of consumer protection in telecommunications, and providing opportunities to all parties to participate in the development of telecommunications services to be on par with international countries in the future.

Colonel

(Settapong Malisuwan)  
Vice-Chairman of NBTC Commission  
Chairman of Telecommunications Commission



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Monogram



Portrait of King Chulalongkorn  
in the uniform of the  
First Division of the  
Royal Guard







## The National Broadcasting and Telecommunications Commission (NBTC)







1. Air Chief Marshal Thares Punsri
2. Colonel Dr. Natee Sukonrat
3. Colonel Dr. Settapong Malisuwan
4. Lt. Gen. Dr. Perapong Manakit
5. Dr. Suthiphon Thaveechaibarn
6. Pol. Col. Taweesak Ngamsanga
7. Assoc. Prof. Prasert Silphiphat
8. Asst. Prof. Dr. Thawatchai Jittrapanun
9. Ms. Supinya Klangnarong
10. Mr. Prawit Leesatapornwongsa
11. General Sukit Khamasunthorn

*Chairman of NBTC*  
*Vice-Chairman of NBTC*  
*Vice-Chairman of NBTC*  
*Commissioner*  
*Commissioner*  
*Commissioner*  
*Commissioner*  
*Commissioner*  
*Commissioner*  
*Commissioner*  
*Commissioner*



Air Chief Marshal Thares Punsri

*Chairman of NBTC*



## Education

- The 6<sup>th</sup> Armed Forces Academies Preparatory School, Pre-University Education
- Bachelor of Science in Aeronautical Engineering, Royal Thai Air Force Academy (Class 13)
- Certificate, National Defence Collage of Thailand, Class 40
- International Military Programs: The Joint Services Command and Staff College 1982

## Certificates

- 1) The Course on Corporate Governance for Director and Senior Executives of State Enterprises and Public Organizations, Class 3, Public Director Institute (PDI)
- 2) Executive Leadership Program, Capital Market Academy, Class 10, 2010

## Work Experience

- Air Attache of Soul, 1991 - 1994
- Director of Operation, 1997 - 1998
- Chief of the Air Staff, 2001 - 2005
- Member of the Legislative Council, 2006 - 2007
- Deputy Permanent Secretary of the Ministry of Defence, 2006 - 2008
- Chairman of the Executive Committee of the Defence Technology Institute (Public Organization) 2009 - 2010





## Colonel Dr. Natee Sukonrat

*Vice-Chairman of NBTC*  
Chairman of Broadcasting Commission

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## Education

- Bachelor of Science in Electrical Engineering (First Class Honors, Gold Medal Award), Chulachomklao Royal Military Academy
- MSEE in Electrical and Telecommunication Engineering, University of South Florida, USA
- Ph.D. in Electrical and Telecommunication Engineering, University of South Florida, USA

## Certificates and Awards

- 1) Honorary Doctor of Arts Degree in Information Technology, Sripatum University
- 2) Top Executive Program in Commerce and Trade, Class 7, Commerce Academy University of the Thai Chamber of Commerce
- 3) Top Executive Program, Class 14 (CMA 14), Capital Market Academy
- 4) Advance Justice Administration Course for Executives, Class 2, College of Justice Administration
- 5) Executives Program in Politics Administration in Democratic System, Class 14, King Prajadhipok's Institute
- 6) Finance for Non-Finance Director and Director Certification Program, Class 94/2007, Thailand Institute of Directors
- 7) Chief of Staff, Royal Thai Army School, Class 81

## Work Experience

- Commissioner, the National Telecommunications Commission (NTC)
- Senior Engineering Officer, Armed Forces Telecommunications Office, Royal Thai Armed Forces Headquarters
- Acting CEO, TOT Public Company Limited
- Board of Directors, TOT Public Company Limited
- Chairman of the CDMA 2000 1X-EVDO Project Steering Committee, CAT Telecom Public Company Limited
- Consultant to the IPStar Satellite Project
- Senior Engineering Officer, Project on Globalstar Low Earth Orbit Satellite Communications, San Diego, CA, USA



## Colonel Dr. Settapong Malisuwan

*Vice-Chairman of NBTC*  
Chairman of Telecommunications Commission

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## Education

- Bachelor of Science in Electrical Engineering (First Class Honors, Gold Medal Award), Chulachomklao Royal Military Academy
- Master of Science in Electrical Engineering in Mobile Communications System, George Washington University, Washington D.C. USA
- Master of Science in Electrical Engineering, George Institute of Technology, USA
- Ph.D. in Electrical Engineering (Telecommunications), National Engineering Honor Society (Beta Pi), Florida Atlantic University, Florida, USA

## Certificate

- Program of Intellectual Property Law and International Trade to the Role of Associate Judge, The Central Intellectual Property and International Trade Court, Class 3
- Chief of Staff, Royal Thai Army School, Class 84
- Defense Resource Management Course, Awarded by International Military Education and Training (IMET) Program, Naval Postgraduate School, USA
- Command and General Staff, Class 51, Command and General Staff College
- Advance Justice Administration Course for Executives, Class 17, College of Justice Administration
- Top Executive Program, Class 18, Capital Market Academy

## Work Experience

- Lecturer, Department of Electrical and Computer Engineering, Chulachomklao Royal Military Academy
- Associate Judge of Intellectual Property and International Trade Court
- Officer in the Chief of Staff, Attached to the Chief of Staff
- Officer in the Chief of Staff, Attached to Deputy Supreme Commander, Royal Thai Army
- Secretary to the Chairman of the Board of CAT Telecom Public Company Limited
- Supervisor Board of the Operation and Project of CAT Telecom Public Company Limited
- Associate Professor of Business, Business School, Trident University International (TUI), USA (Accredited Internet Distance Learning University)



**Lt. Gen. Dr. Perapong Manakit**

***NBTC Commissioner***  
**Broadcasting Commissioner**



## Education

- B.Sc. Chulachomklao Royal Military Academy, 1978
- M.A. Social Development, NIDA, 1986
- Ph.D. Sociology of Development, University of Bielefeld, Germany (Awarded by Germany Government, Thailand-German Student Exchange Program, 1992)
- Certificate, National Defence College of Thailand, Class 51
- Certificate, Top Executive Program, Class 15, Capital Market Academy, 2012
- Certificate, Advance Justice Administration Course for Executives, Class 18, 2013
- Oversea Joint Warfare Course, Australia, 1999
- Diploma in Defense Diplomacy, Cranfield University, England, 2001
- Civil Military Relation Program, Italian Defense Ministry, Italy, 2003

## Work Experience

- Rifle Platoon Leader, Rifle Company, the Third Infantry Battalion, the First Infantry Regiment Chamberlain Guard, 1978
- Officer, Strategic Research and Development Administration, Institute of Higher Army Studies, 1993
- Director of Psychological Operation Division, Military Civil Affairs Department, 1999
- Director of Information Division, Directorate of Civil Affairs, 2001
- Assistant Chief of Staff Officer to Deputy Supreme Commander, 2004
- Expert, the Supreme Command Headquarters, 1995
- Spokesman, Ministry of Defence, 2008
- Special Advisor to the Internal Security Operations Command, 1997 - 2001
- Secretary attached to the Standing Committee on the Military Affairs, the Senate, 2000 - 2005
- Performing official duties to support the Counselor to the Minister of Defence, 2001 - 2002
- Manager of Satellite Television Division, TV5, 2004
- Deputy Director, Center for Psychological Operations and Public Relations in the Southern Provinces, National Security Council, 2005 - 2006
- Consultant to the Office of National Security Council, 2006 - 2010
- Sub-Committee on Inspection and Investigation in the Committee on Inspection and Investigation for National Reconciliation and Study Research Sub-Committee in the Committee on Inspection and Investigation for National Reconciliation, 2008 - 2009
- Secretary attached to the Committee for Study and Consideration of Capacity Building and Management of the Army under the Committee on the Military Affairs, House of Representatives, 1999 - 2001
- Producer of the Radio Program on “Jai Tueng Jai” (From Heart to Heart), 1999 - 2001
- Producer of the Radio Program on “Ban Mueng Khong Rao” (Our Homeland), 2001 - 2010
- Producer of the Radio Program on “Ruk Mueng Thai” (Love Thailand), 2006 - 2010





## Dr. Suthiphon Thaveechaiyagarn

*NBTC Commissioner*

Telecommunications Commissioner

Being in position of Commissioner during 7 October 2011 - 8 September 2014

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## Education

- Bachelor of Laws (Honors), Thammasat University
- Barrister-at-Law, Institute of Legal Education (Thai Bar Association), Session 36
- Scholarship Awarded by the Anandamahidol Foundation to further studies in the USA as follows:
  - 1) Master of Laws, Harvard University
  - 2) Master of Laws, University of Pennsylvania
  - 3) Doctor of Judicial Science, University of Pennsylvania
- Certificate, National Defence Program for the Joint State-Private Sectors, National Defence College of Thailand, 2006 - 2007
- Diploma, Advance Justice Administration Course for Executives, 2011 - 2012
- Certificate, Executive Program for Senior Administration of Justice, National Defence College of Thailand, 2012 - 2013

## Work Experience

- Legal Counselor to Law Firms, Mudge, Rose, Guthrie, Alexander & Ferdon, Washington, D.C., USA
- Legal Counselor to Law Firms, McCutchen, Doyle, Brown & Enersen, San Francisco, California, USA
- Judge attached to the Ministry, Acting Assistant to Judge of the Supreme Court
- Judge Secretary and Secretary, Department of Intellectual Property and International Trade of the Supreme Court
- Judge of the Court of the First Instance attached to the Office of the President of Supreme Court
- Deputy Secretary of the Supreme Court
- Secretary-General of the Election Commission of Thailand (15 November 2006 - 18 September 2011)
- Acting Director of the Institute of Politics and Elections (26 February 2000 - 18 September 2001)



## Pol. Col. Taweesak Ngamsanga

*NBTC Commissioner*  
Broadcasting Commissioner





## Education

- Bachelor of Laws, Ramkhamhaeng University
- Master of Public Administration (MPA), Bangkok Thonburi University
- Ph.D. Student in Public Administration (DPA), Bangkok Thonburi University

## Work Experience

- Deputy Police Inspector (Investigations), Kok Sri Suphan Police Station, Sakon Nakhon Province
- Deputy Police Inspector (Patrol), Ban Phai District Police Station, Khon Kaen Province
- Deputy Police Inspector (Investigations), Pol District Police Station, Khon Kaen Province
- Police Inspector (Investigations), Bung Khla District Police Station, Nong Khai Province
- Deputy Chief of Police Acting Deputy Chief of Police Station, Bung Khla District Police Station, Nong Khai Province
- A Committee of the Inquiry Official Committee appointed by the Royal Thai Police to be responsible for the Essential Property Fraud in Nong Khai Province's Area (395 Cases)
- Chief of Police, So Phi Sai District Police Station, Nong Khai Province
- Chief of Police, See Chom Poo District Police Station, Khon Kaen Province
- Legal Advisor to a Member of the National Legislative Assembly



**Assoc. Prof. Prasert Silhiphat**

***NBTC Commissioner***  
**Telecommunications Commissioner**



## Education

- Bachelor of Arts (Economics), Chiang Mai University
- Master of Arts (Economics), Middle Tennessee State University, USA
- Certificate, National Defence College of Thailand, Class 45
- Certificate, Advanced Course for Executives, Class 33
- Certificate, Advance Justice Administration Course for Executives, Class 3

## Work Experience

- Professor, Faculty of Economics, Chulalongkorn University, 1975 - 2001
- Vice-Chancellor, Chulalongkorn University, 1997 - 2000
- Deputy Secretary-General of King Prajadhipok Institute, 2000 - 2006
- Executive Director, the Telecommunications Development Fund for the Public Benefit, Office of the NBTC, 2008 - 2010





**Asst. Prof. Dr. Thawatchai Jittrapanun**

***NBTC Commissioner***  
**Broadcasting Commissioner**



## Education

- Doctor of Philosophy in Business Administration (Ph.D.) (Finance), University of Alabama, USA
- Master of Business Administration (Finance), Georgia State University, USA
- Bachelor of Engineering (Mechanical Engineering), Chulalongkorn University

## Work Experience

- Professor, Faculty of Economics, Chulalongkorn University
- Special Professor of Doctoral Program of Finance (Finance Economics), NIDA
- Special Professor of Doctoral Program of Finance (Finance Economics) for the Joint Doctoral Program in Business Administration (JDBA), Chulalongkorn-NIDA-Thammasat Universities
- Chairman of the B.A. Program in Economics (International Program), Faculty of Economics, Chulalongkorn University
- Chairman of the Centre for Labor Development, Faculty of Economics, Chulalongkorn University
- Scholarship Selection Committee of NBTC
- Special Lecturer in Finance, Business Administration Course in Public and Private Universities
- Advisor to the Committee on Monetary, Finance, Banking and Financial Institutions, the Senate
- Advisor to the Committee on Budget Administration Follow-Up, House of Representatives
- Project Leader, the Index of Exports of the Thai National Shippers' Council
- Researcher, Visiting Research Fellow, Saitama University of Japan (Awarded by Komei Fellowship)
- Researcher, Visiting Research Fellow, Institute for Southeast Asian Studies, Singapore (Awarded by World Bank Research Fellowship)



**Ms. Supinya Klangnarong**

***NBTC Commissioner***  
**Broadcasting Commissioner**

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## Education

- M.A. in Communications Policy and Regulation (Merit), University of Westminster, London, 2002
- M.A. in Journalism and Mass Communications, Thammasat University, Thailand, 2000
- B.A. in Communication Arts, Mass Communications (Broadcasting), Chulalongkorn University, Thailand, 1995

## Work Experience

- Sub-committee on the Public Hearing of the Draft Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services, 2000
- Deputy Secretary-General, Secretary-General of Campaign of Popular Media Reform (CPMR), 2001 - 2008
- Lecturer, Center for Human Rights Studies and Social Development Graduate School, Mahidol University, 2006 - 2009
- Legislative Committee on the Draft the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. ....
- Sub-committee on the Protection of Right and Freedom of Expression for Individuals and Media, Committee on Human Rights, and Liberties and Consumer Protection, the Senate, 2009 - 2011
- Sub-committee on Broadcasting Regulation, and the working Group for Non-Frequency Business, National Telecommunications Commission, 2009 - 2011
- Vice-Chairman of the Campaign Committee for Media Reform
- A Broad Member of Film Archive (Public Organization)
- Committee of the Promotion of Rights and Freedom and Responsibility of Media
- Advisory Committee to the Project of Consumers Protection Mechanism for Citizen Media, Foundation for Consumers
- Special Lecturer on Media Reform, New Media and Politics and Human Right



Mr. Prawit Leesatapornwongsa

*NBTC Commissioner*  
Telecommunications Commissioner



## Education

- Bachelor of Medicine, Chulalongkorn University, Thailand, 1987
- Bachelor of Political Sciences, Sukhothai Thammathirat University, Thailand, 1992
- Diplomat of the Thai Board of Preventive Medicine, 1992
- Master of Public Health, Price Leopold Institute of Tropical Medicine, Belgium, 1999
- Diplomat of the Thai Board of Family Medicine, 2004

## Work Experience

- Director of Huay Tap Tan Community Hospital, Si Sa Ket Province
- Director of Sri Rattana Community Hospital, Si Sa Ket Province
- Director of Lad Bua Luang Community Hospital, Ayutthaya Province
- Director of Uthai Community Hospital, Ayutthaya Province
- Chairman of Rural Doctor Club
- Executive Secretary of the Coordinating Committee for Primary Health Care of Thai NGOs
- Secretary-General of Foundation for Consumer
- Member of the National Economics and Social Advisory Council
- Chairman of Working Group Consumer Protection, National Economics and social Advisory Council
- Director of the Telecommunications Consumer Protection Institute (TCI), Office of National Telecommunications Commission
- Sub-Committee of the Human Right, National Human Rights Commission of Thailand





## General Sukit Khamasunthorn

*NBTC Commissioner*  
Telecommunications Commissioner

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## Education

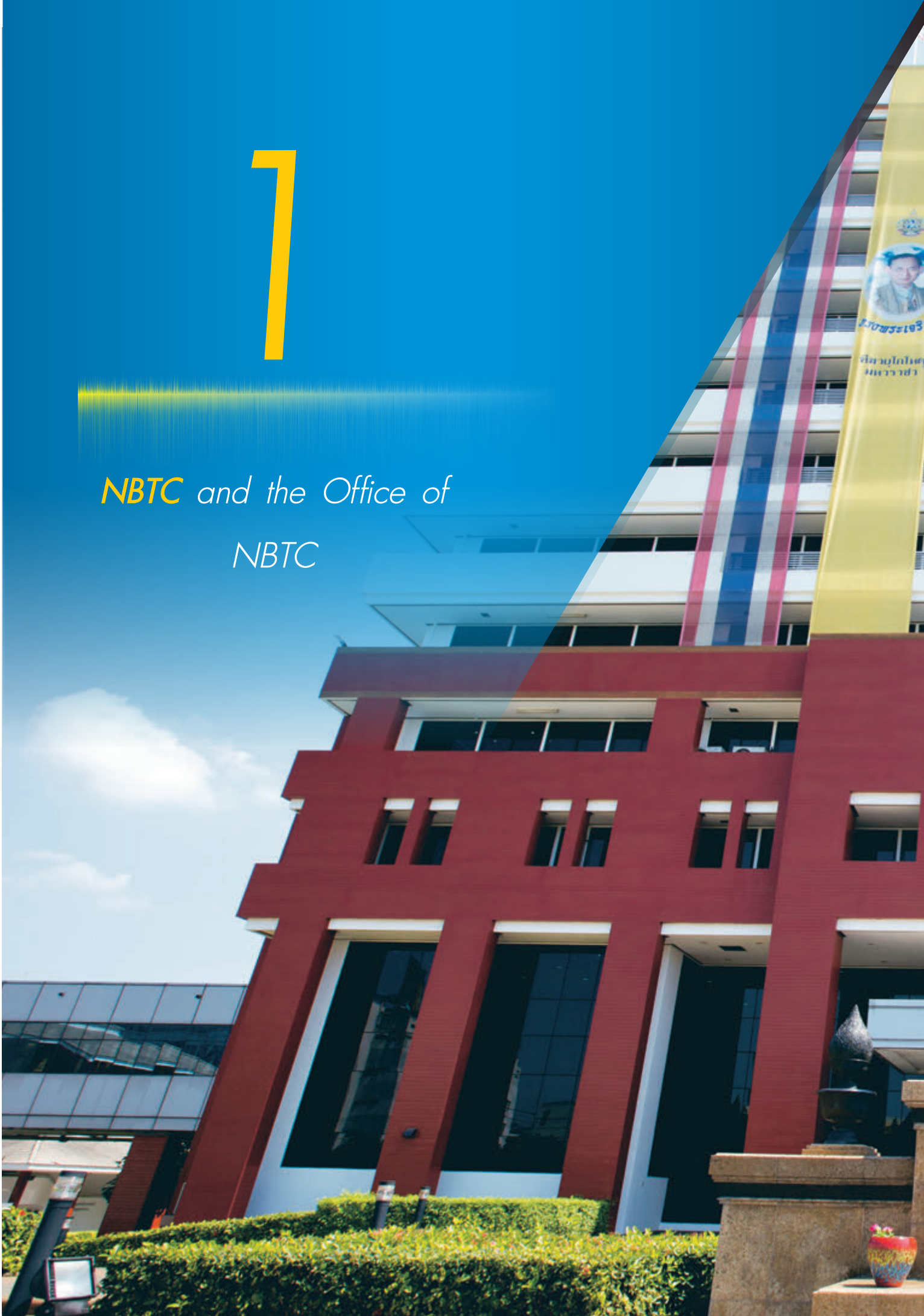
- Bachelor of Science Chulachomklao Royal Military Academy, Class 20
- M.A. in Political Science (Security Resources Management), Burapha University
- Joint Staff Course, Command and General Staff College
- Certificate, National Defence College of Thailand, Class 44
- Professional Engineer (Civil Engineering), Board of Control of the Professional Engineering

## Work Experience

- Chief of Army Engineering Battalion 1, Royal Guards
- Commander of the 1<sup>st</sup> Development Division
- Deputy Commander-in-Chief of the First Army Area
- Special Consultant to the Royal Thai Armed Forces Headquarters
- Special Royal Guard
- Judge to the Supreme Military Court
- Member of the Committee to Formulate the Policy for the Provision of Universal Basic Telecommunications Services and Social Services, National Telecommunications Commission
- Advisory Board of the Management of Doctoral Philosophy Program in Political Science, Burapha University
- Responsible for the Project of the Construction of Entrance and Services Pathways within Suvarnabhumi Airport
- Director of the Royal Project Don Khun Huay, Phetchaburi Province
- Director of the Royal Initiative Project Huay Mae Prieng, Phetchaburi Province
- Director of the Queen Sirikit Forest Park Project, Ratchaburi Province
- Director of the Construction Project of Benjakiti Park, Bangkok
- Chief of the Secretariat Office of the Internal Security Operations Command

# 1

## *NBTC and the Office of NBTC*









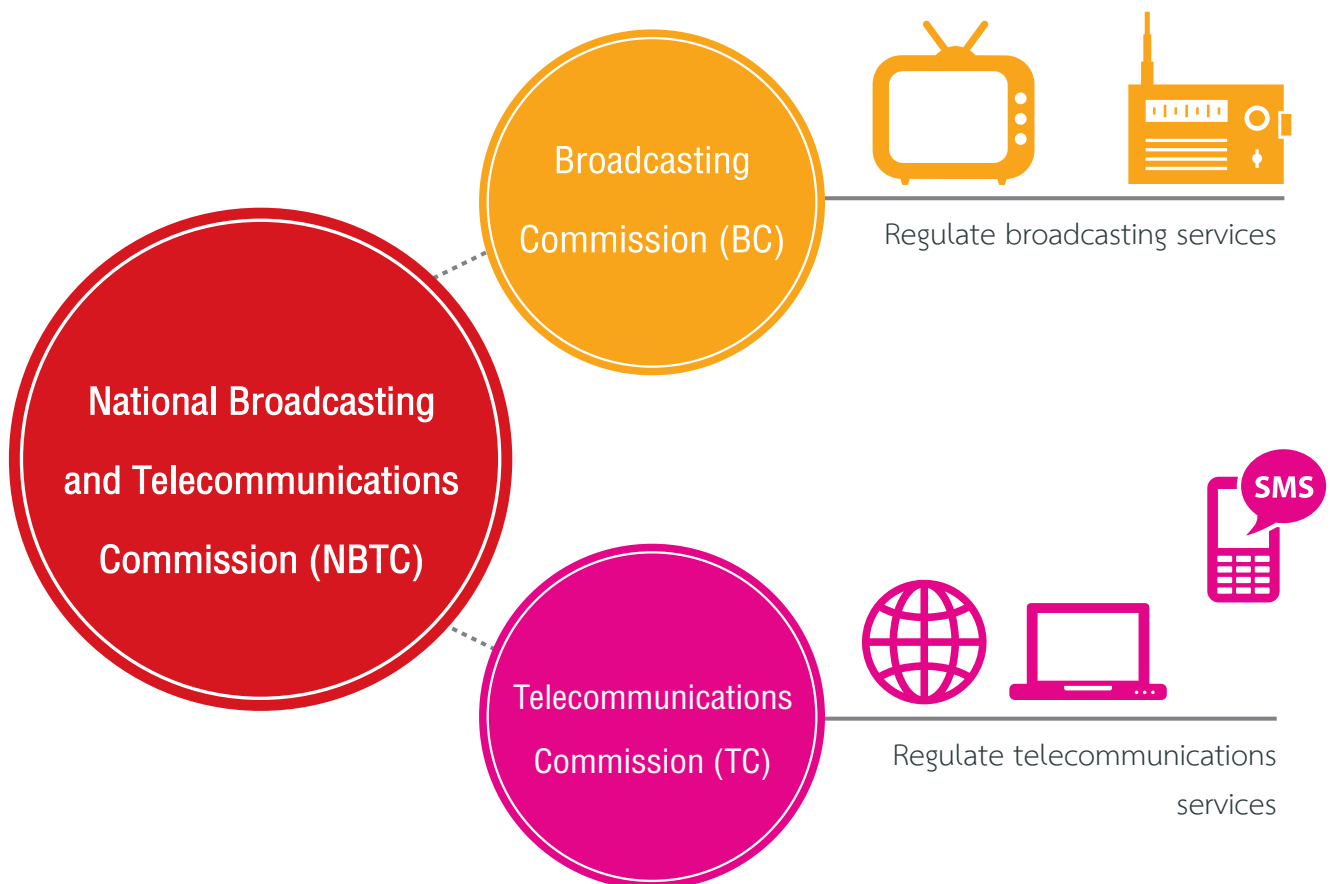
The Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010) which has become effective since 20 December 2010 onwards prescribed that there shall be the National Broadcasting and Telecommunications Commission (NBTC) to be responsible for assigning the frequencies and regulating the broadcasting and telecommunications business with regard to utmost public benefit at national and local levels in education, culture, state security and other public interests as well as free and fair competition. This includes promoting the participation of the public in the public media operation.

On 7 October 2011, the Royal Proclamation appointed the National Broadcasting and Telecommunications Communication, under Section 17 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010), comprising 11 persons as follows:

Air Chief Marshal Thares Punsri	Chairman of NBTC
Colonel Dr. Natee Sukonrat	Vice-Chairman of NBTC
Colonel Dr. Settapong Malisuwan	Vice-Chairman of NBTC
Lt. Gen. Dr. Perapong Manakit	Commissioner
Dr. Suthiphon Thaveechaigarn	Commissioner
Pol. Col. Taweesak Ngamsanga	Commissioner
Assoc. Prof. Prasert Silphiphat	Commissioner
Asst. Prof. Dr. Thawatchai Jittrapanun	Commissioner
Ms. Supinya Klangnarong	Commissioner
Mr. Prawit Leesatapornwongsa	Commissioner
General Sukit Khamasunthorn	Commissioner



The NBTC has commenced on their duties since 2011 onwards. However, according to the Act, Section 35 and 38 together with Section 37 and 40, prescribing that the NBTC shall appoint the Broadcasting Commission (BC) and the Telecommunications Commission (TC) to have the power to act on behalf of the NBTC as follows:







## Power and Duties of the NBTC

According to Section 27 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010), the NBTC shall have the power and duties as follows:

1. To formulate a Spectrum Management Master Plan, National Table of Frequency Allocations, Broadcasting Master Plan, Telecommunications Master Plan, Frequency Plan, and Telecommunications Numbering Plan
2. To assign radio frequencies for the undertaking of radio broadcasting, television broadcasting, radiocommunication, and telecommunication services
3. To prescribe characteristics and categories of radio broadcasting, television broadcasting, and telecommunications services
4. To license and regulate the use of radio frequencies and radiocommunication equipments in the undertaking of radio broadcasting, television broadcasting and telecommunications services, or radiocommunication service; and prescribe licensing criteria and procedures, conditions, or licensing fees
5. To prescribe criteria for efficient use of radio frequency without causing interference to the same type of business and other type of business
6. To license and regulate the operations of radio broadcasting, television broadcasting and telecommunications services to allow service users to have choices of services with quality, efficiency, timeliness, reliability and fairness; and prescribe licensing criteria and procedures, conditions, or licensing fees
7. To license and regulate the use of telecommunications numbers; and prescribe licensing criteria and procedures, conditions, or licensing fees
8. To prescribe criteria and procedures for interconnection, and criteria and procedures for setting access charges or interconnection charges to be applied to the undertaking of radio broadcasting, television broadcasting and telecommunications services, both for the same type of business and other type of business, which shall be fair to service users, service providers and investors, or between the telecommunications service providers with due regard to public interest
9. To set tariff structure and price structure for radio broadcasting, television broadcasting and telecommunications services which shall be fair to service users and service providers with due regard to public interest
10. To set standards and required technical specifications for radio broadcasting, television broadcasting, telecommunications and radiocommunications services
11. To prescribe measure for the prevention of anti-competitive conduct or unfair competition in radio broadcasting, television broadcasting and telecommunications services
12. To prescribe measure for the provisions of telecommunications services universally and equally in accordance with Section 50
13. To protect right and liberty of the people from being exploited by the operators; protect individual right of privacy and freedom to communicate by means of telecommunications; promote right, freedom and equality of the people in the access to, and use of frequencies in the sound broadcasting, television broadcasting and telecommunications services



14. To coordinate matters relating to frequency management, both at the national and international levels

15. To determine and resolve issues relating to interference of frequencies;

16. To monitor and provide advice on the undertaking of radio broadcasting, television broadcasting and telecommunications services

17. To set forth regulation on merger, cross ownership-holding or broadcasting market dominance amongst mass media businesses or by any other person, which has the effect of impeding the liberty of the public in perceiving information or of obstructing public access to a diversity of information

18. To promote a formation of licensees, broadcasters, and mass media professionals in the radio and television businesses into diverse forms of organizations which will have the mandate to set forth ethical standards and self-regulation pertaining to the occupation or profession under the ethical standards

19. To issue rules or notifications according to Section 58

20. To approve the budget of the Office of the NBTC budgets, including the financing of the Fund under Section 55

21. To determine and approve financial allocation for the Fund as proposed by the Fund Management Committee under Section 55

22. To provide information and participate in negotiations or making agreements between the Kingdom of Thailand and foreign governments or international organizations in matters relating to frequency management, radio broadcasting, television broadcasting, telecommunications services, or other related undertakings

23. To give advice to the Cabinet for an issuance of, or amendment to, legislation related with frequency allocation and other matters relating to frequencies, sound broadcasting, television broadcasting, and telecommunications services

24. To prescribe rules, notifications or orders under the powers and duties of the NBTC

25. To perform any other acts as prescribed in this Act or other laws

Apart from the power and duties under the Act, the NBTC shall have power and duties according to other laws which are the 2001 Telecommunication Business Act and the 2<sup>nd</sup> 2006 Telecommunication Business Act, the 2008 Broadcasting Business Act, the 1955 Radiocommunications Act and its addition, and other concerning laws.

The Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010) Section 35 and 38 prescribed that the NBTC appoints the Broadcasting Commission (BC) and the Telecommunications Commission (TC) to have the power to act on behalf of the NBTC in accordance with Section 37 and 40 of the Act.



THE  
BROADCASTING  
COMMISSION  
(BC)

Colonel Dr. Natee Sukonrat 1  
Chairman of BC



2 Lieutenant General Dr. Perapong Manakit  
Commissioner



Police Colonel Taweesak Ngamsanga 3  
Commissioner

Ms. Supinya Klangnarong 5  
Commissioner



Asst. Prof. Dr. Thawatchai Jittrapanun 4  
Commissioner



## *Power and Duties of BC*

1. To license and regulate the use of radio frequencies and radiocommunications equipments in the undertaking of radio broadcasting, television broadcasting; and prescribe licensing criteria and procedures, conditions, or licensing fees

2. To license and regulate the operations of radio broadcasting, television broadcasting to allow service users to have choices of services with quality, efficiency, timeliness, reliability and fairness; and prescribe licensing criteria and procedures, conditions, or licensing fees

3. To prescribe criteria and procedures for interconnection, and criteria and procedures for setting access charges or interconnection charges to be applied to the undertaking of radio broadcasting, television, both for the same type of business and other type of business, which shall be fair to service users, service providers and investors, or between the service providers with due regard to public interest

4. To set tariff structure and price structure for radio broadcasting, television broadcasting which shall be fair to service users and service providers with due regard to public interest

5. To set standards and required technical specifications for radio broadcasting, television broadcasting services

6. To prescribe measure for the prevention of anti-competitive conduct or unfair competition in radio broadcasting, television broadcasting services

7. To protect right and liberty of the people from being exploited by the operators; protect individual right of privacy and freedom to communicate by means of telecommunications; promote right, freedom and equality of the people in the access to, and use of frequencies in the radio broadcasting, television broadcasting services

8. To monitor and provide advice on the undertaking of radio broadcasting, television broadcasting services

9. To promote a formation of licensees, broadcasters, and mass media professionals in the radio and television businesses into diverse forms of organizations which will have the mandate to set forth ethical standards and self-regulation pertaining to the occupation or profession under the ethical standards





THE  
TELECOMMUNICATIONS  
COMMISSION  
(TC)

Colonel Dr. Settapong Malisuwan  
Chairman of TC



2  
Dr. Suthiphon Thaveechaiyagam  
Commissioner



3  
Assoc. Prof. Prasert Silphiphat  
Commissioner



5  
General Sukit Khamasunthorn  
Commissioner



4  
Mr. Prawit Leesatapornwongsa  
Commissioner



## Power and Duties of TC

1. To license and regulate the use of radio frequencies and radiocommunication equipments in the undertaking of telecommunications services, or radiocommunication service; and prescribe licensing criteria and procedures, conditions, or licensing fees
2. To license and regulate the operations of telecommunications services to allow service users to have choices of services with quality, efficiency, timeliness, reliability and fairness; and prescribe licensing criteria and procedures, conditions, or licensing fees
3. To license and regulate the use of telecommunications numbers; and prescribe licensing criteria and procedures, conditions, or licensing fees
4. To prescribe criteria and procedures for interconnection, and criteria and procedures for setting access charges or interconnection charges to be applied to the undertaking of telecommunications services, both for the same type of business and other type of business, which shall be fair to service users, service providers and investors, or between the telecommunications service providers with due regard to public interest
5. To set tariff structure and price structure for telecommunications services which shall be fair to service users and service providers with due regard to public interest
6. To set standards and required technical specifications for telecommunications and radiocommunications services
7. To prescribe measure for the prevention of anti-competitive conduct or unfair competition in telecommunications services
8. To prescribe measure for the provisions of telecommunications services universally and equally in accordance with Section 50
9. To protect right and liberty of the people from being exploited by the operators; protect individual right of privacy and freedom to communicate by means of telecommunications; promote right, freedom and equality of the people in the access to, and use of frequencies in the telecommunications services
10. To monitor and provide advice on the undertaking of telecommunications services



## *Office of National Broadcasting and Telecommunications Commission (Office of NBTC)*

The Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010) Chapter 5 Section 56 and 60 Paragraph one prescribed that there shall be an Office of National Broadcasting and Telecommunications Commission, called in short “Office of NBTC” which is a juristic person having a status of State agency and shall not be subject to the government agency under the law on public administration, or state enterprise under the law on budgetary procedure or other law and is under the supervision of a chairperson.

The affairs of the Office of NBTC shall not be subject to the law on labor protection, the law on labor relations, the law on social security and the law on workers’ compensation. The Office of NBTC shall have a Secretary-General of NBTC who shall be responsible for the work performance of the Office and directly answerable to the Chairperson and shall be the superior of officials and employees of the Office.

### *Power and Duties of Office of NBTC*

According to Section 57 of the Act, Office of NBTC shall have powers and duties as follows:

1. Be responsible for the Office of NBTC’s revenues and expenditures
2. Prepare the Office of NBTC’s annual budget and submit to the NBTC for endorsement. The said annual budget shall include any budget with respect to the conduct of official duties of the NBTC, BC, TC and Office of NBTC
3. Monitor and follow up spectrum utilization
4. Receive and consider complaints with regard to the use of spectrum, the operations of broadcasting and telecommunications business in order to examine and solve the problems or propose recommendations to the NBTC for consideration in accordance with the criteria prescribed by the NBTC
5. Study, compile and analyze information related to the spectrum, the use of spectrum, the operations of broadcasting and telecommunications business
6. Be responsible for the administrative work of the NBTC, BC, TC and Fund Management Committee
7. Perform other acts as entrusted by the NBTC, BC, and TC



The Office of NBTC's revenues, according to Section 65, shall be derived from the followings:

1. Spectrum license fees and business license fees under Section 42 paragraph two and Section 45 paragraph three;
2. Revenues or benefits accrued from the conduct of duties of NBTC and the Office of NBTC;
3. Revenues derived from the Office of the NBTC's property;
4. Money and property donated to the Office of NBTC in accordance with the regulation set forth by the NBTC for the work of the Office;
5. Subsidies from the government.

Revenues of the Office under (1) and (2) after deducting by expenditures for efficient conduct of the Office, necessary burden costs, and money allocated for the Fund under Section 52 and the Technology Development for Education Fund under the law on national education shall be remitted to the state treasury. In the case where the Office's revenues are not sufficient for efficient conduct of the Office, including necessary burden costs, and other sources are not available, the government shall allocate the national budget to the Office as necessary.

The Office of NBTC has established "the Broadcasting, and Telecommunications Research and Development Fund for the Public Interest" under Section 52 of the Act with the following objectives:

1. To provide universal services on radio broadcasting, television broadcasting and telecommunication, as well as promote community services and support community service operators under Section 51
2. To promote and support communication resources development, research and development in the broadcasting and telecommunications sector, as well as to increase people's capabilities in keeping pace with the media's technology in the aspect of spectrum utilization, information technology, facilities for the disabled, elderly, or underprivileged as well as telecommunications industries and related industries
3. To promote and support human resource development in the broadcasting and telecommunications sector, information technology, as well as for the implementation of the organizations which is responsible for setting ethical standards of the occupations or professions under the law on broadcasting and television business
4. To support, promote and protect the broadcasting, television and telecommunication services consumers
5. To support the implementation under the Act on Safe and Creative Media Development Fund by allocating money to the Safe and Creative Media Development Fund

On 31 December 2014, the Management, Organization Structure and Manpower of Office of NBTC are as shown in Table 1 and Chart 1.





THE  
MANAGEMENT  
TEAM OF  
THE OFFICE OF  
NBTC

Mr. Takorn Tantasith 1  
*Secretary-General of NBTC*



2  
Mr. Trirath Viriyasirikul  
*Deputy Secretary-General  
Strategic and Internal Affairs*



3  
Air Vice Marshal Dr. Thanaphant Raicharoen  
*Deputy Secretary-General  
Spectrum Management and Regional Affairs*

4  
Mr. Korkij Danchaivichit  
*Deputy Secretary - General  
Telecommunications Affairs*





**Mr. Sombut Leelapata**  
*Acting Deputy Secretary-General  
Broadcasting Affairs*

5



**Mr. Pitjapol Jantanasaro**  
*Principal Expert*

6

**Mr. Pakpien Soontornsud**  
*Principal Expert*

8



**Mr. Totsaporn Getu-adisorn**  
*Principal Expert*

7

**Mr. Ongard Ruangroongsom**  
*Principal Expert*

9



# Organization Structure of Office of NBTC

(in accordance with the NBTC's Regulation on Internal Organization Division 2014)

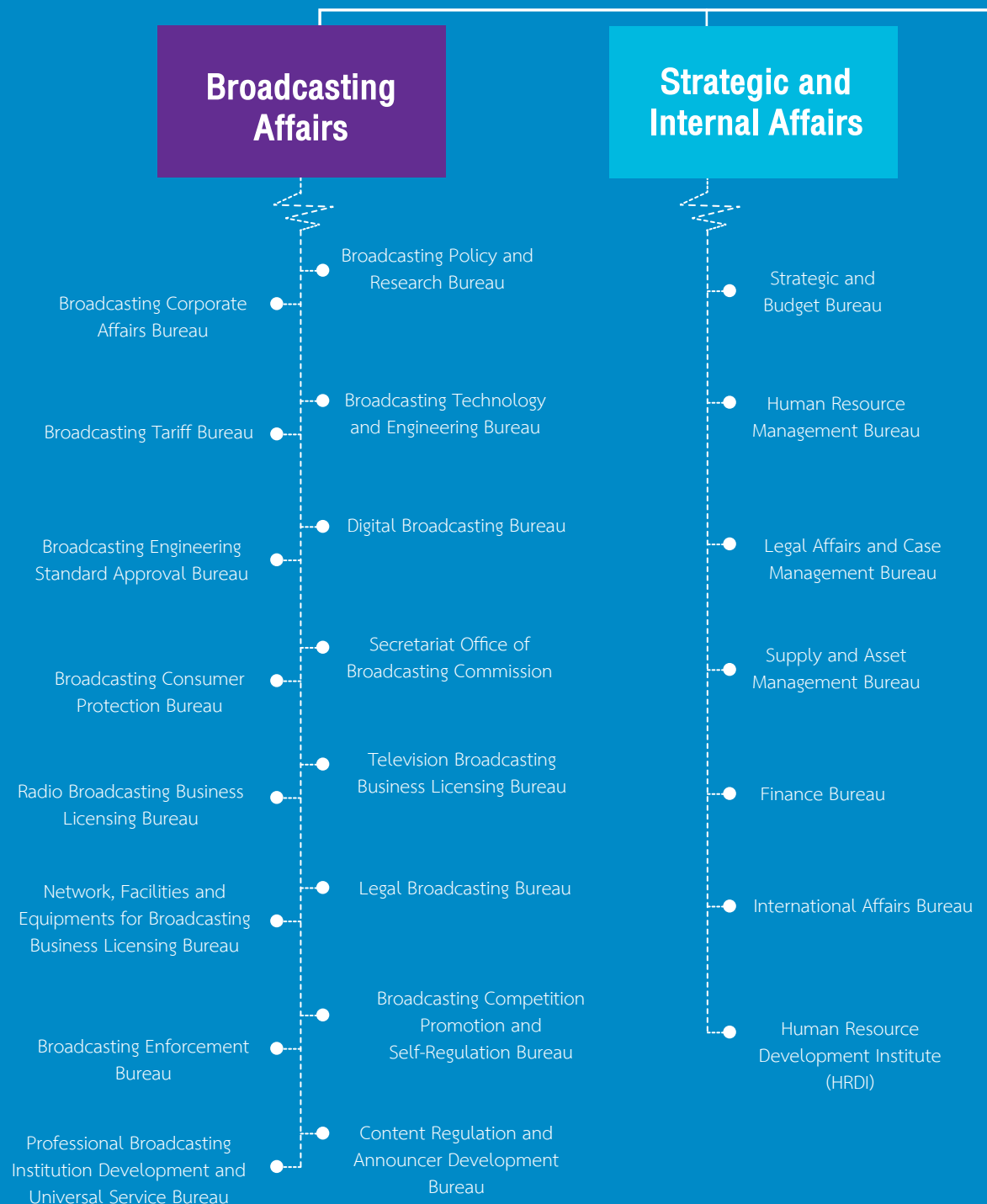
46 Bureau

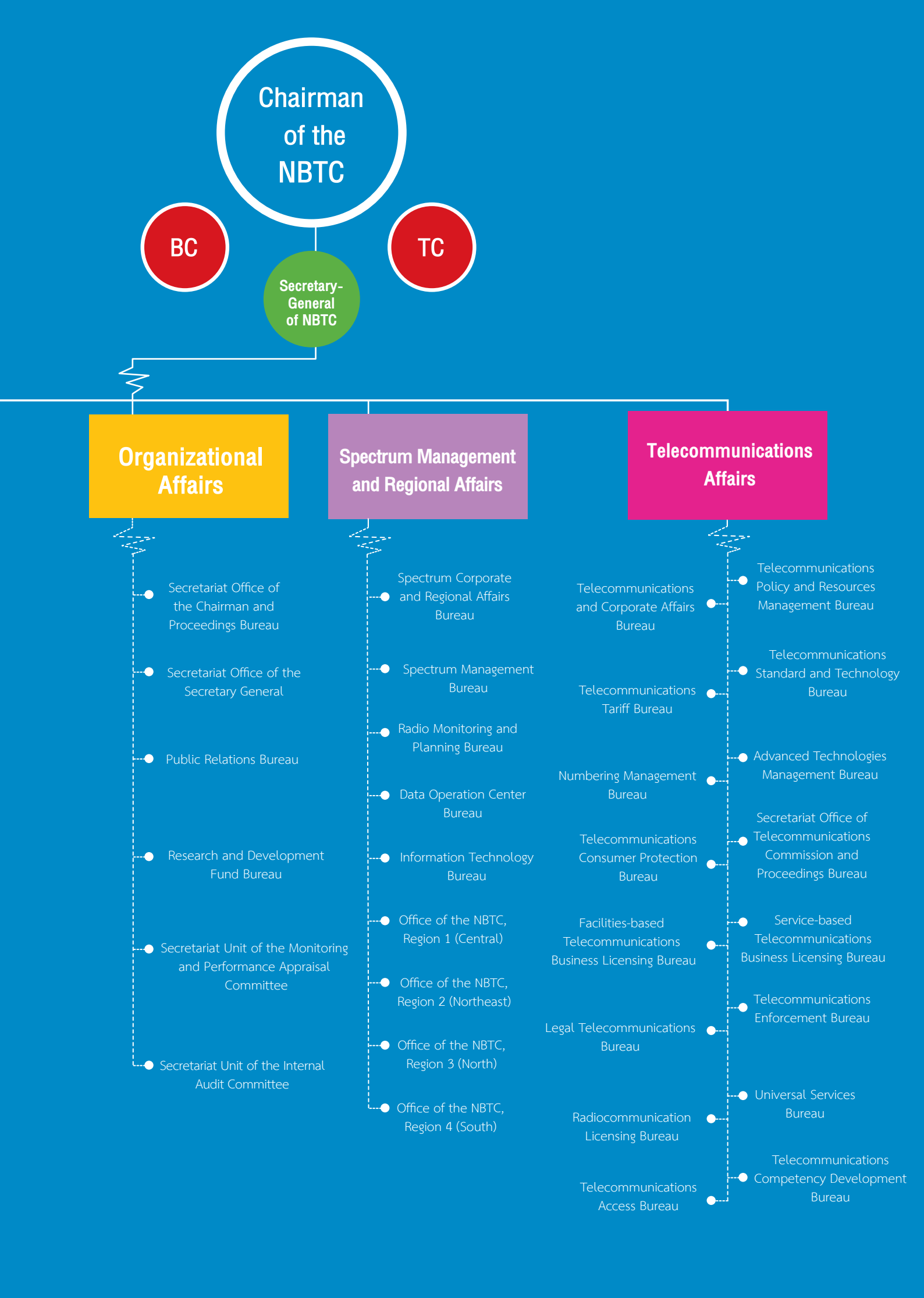
1 Research and Development  
Fund Bureau

1 Institute

4 Regional Office

2 Unit









## Manpower of Office of NBTC in 2014

Chart 1: Manpower of Office of NBTC in 2014

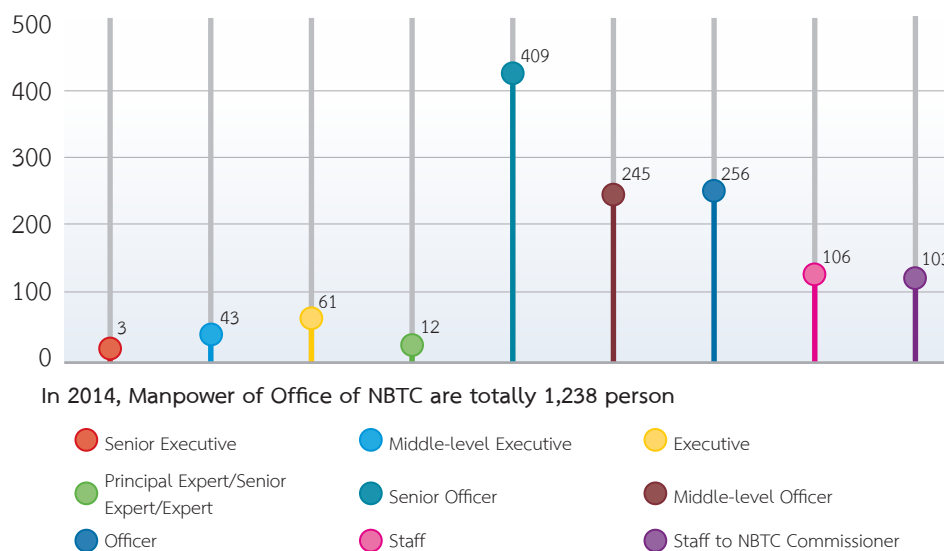


Table 1: Manpower of Office of NBTC in 2014

Position	Numbers (person)
<b>Management Position</b>	
Senior Executive (Deputy Secretary-General)	3
Middle-level Executive (Executive Director)	43
Executive (Division Director)	61
<b>Technical Position</b>	
Principal Expert/Senior Expert/Expert	12
<b>Operational Position</b>	
Senior Officer	409
Middle-level Officer	245
Officer	256
Staff	106
<b>Staff to NBTC Commissioner</b>	
Advisor	27
Secretary	10
Secretary Assistant	16
Employee	43
Driver	7
<b>Total</b>	<b>1,238</b>

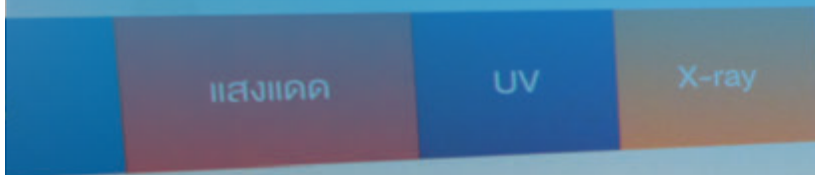
Date 31 December 2014





# 2

## Mission and Major Projects in 2014



### ประโยชน์สูงสุดในการใช้คลื่นความถี่

การนำความถี่ในการสื่อสารมาแบ่งใช้กันอย่างมีประสิทธิภาพ เช่น กิจกรรมวิทยุ โทรทัศน์ โทรคมนาคม วิทยุโทรทัศน์



เช่น คลื่นความถี่ย่าน VLF (Very Low Frequency) ใช้ในการสื่อสารทางไกล การเคลื่อนที่ทางทะเล หรือ การนำเรือเข้าเทียบท่า การนำเรือเข้าเทียบท่า การนำเรือเข้าเทียบท่า การนำเรือเข้าเทียบท่า

ะที่มีการเปิดให้ใช้เป็นการทั่วไป

บริการสาธารณะ

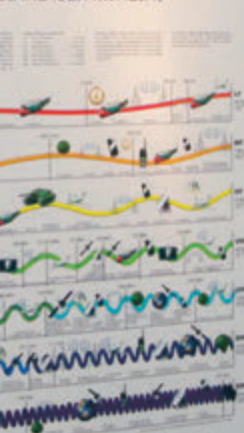
(851-859MHz)

กรณี:



ความถี่ในการสื่อสารคืออะไร?

งานความถี่กันเพื่อใช้ในการทำงาน  
คมนาคม เช่น ภาพผ่านสาย



(Low Frequency) จะใช้ส่วนใหญ่ใน  
ทางอากาศ หรือ ย่าน VHF, UHF  
ทัศน์ โทรศัพท์เคลื่อนที่ หรือ การสื่อสาร  
อื่นๆ จะมีการปรับปรุงให้สอดคล้องกับเทคโนโลยี  
ใหม่ๆ

# ถ้าไม่มีการจัดสรรและกำกับดูแลคลื่นความถี่ที่ดี ประเทศจะเป็นอย่างไร ลองส่องดูกันซิ!!



1. การขาดการวางแผนและการจัดการคลื่นความถี่ที่ดีจะทำให้เกิดความถี่ที่ว่างเปล่า (Spectrum Hoarding) ซึ่งเป็นการใช้คลื่นความถี่โดยไม่เต็มประสิทธิภาพ
2. การขาดการวางแผนและการจัดการคลื่นความถี่ที่ดีจะทำให้เกิดความถี่ที่ว่างเปล่า (Spectrum Hoarding) ซึ่งเป็นการใช้คลื่นความถี่โดยไม่เต็มประสิทธิภาพ
3. การขาดการวางแผนและการจัดการคลื่นความถี่ที่ดีจะทำให้เกิดความถี่ที่ว่างเปล่า (Spectrum Hoarding) ซึ่งเป็นการใช้คลื่นความถี่โดยไม่เต็มประสิทธิภาพ
4. การขาดการวางแผนและการจัดการคลื่นความถี่ที่ดีจะทำให้เกิดความถี่ที่ว่างเปล่า (Spectrum Hoarding) ซึ่งเป็นการใช้คลื่นความถี่โดยไม่เต็มประสิทธิภาพ
5. การขาดการวางแผนและการจัดการคลื่นความถี่ที่ดีจะทำให้เกิดความถี่ที่ว่างเปล่า (Spectrum Hoarding) ซึ่งเป็นการใช้คลื่นความถี่โดยไม่เต็มประสิทธิภาพ
6. การขาดการวางแผนและการจัดการคลื่นความถี่ที่ดีจะทำให้เกิดความถี่ที่ว่างเปล่า (Spectrum Hoarding) ซึ่งเป็นการใช้คลื่นความถี่โดยไม่เต็มประสิทธิภาพ





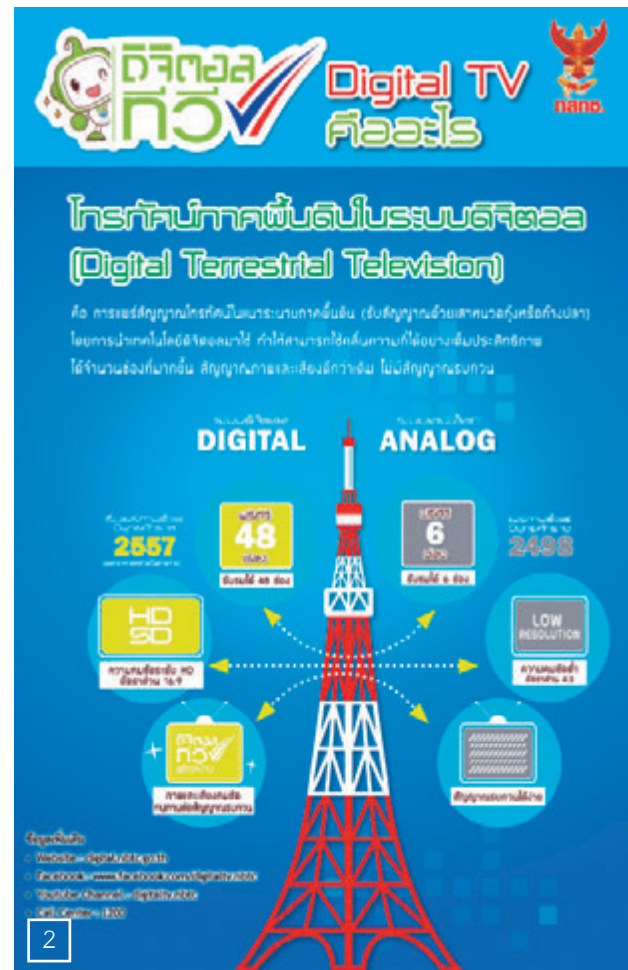


In the year 2014, the NBTC had performed its important missions which can be summarized as follows:

### The Digital Television Switch Over and NBTC's Support to the Public for the Transition to the Viewing of Digital Terrestrial Television

The NBTC has carefully set up plans, policies and the implementation framework for the digital television switch over and avoided having impact on the people from this transition so that the major changes in the national television business could be done smoothly, successfully completed, which will lead to the development of television business of the country. This will give an opportunity for Thai people to communicate and access a variety of information with good quality, in an equitable and knowingly manner for the utmost benefit of the nation. In addition, the national communication resources will be allocated in a transparent, fair and effective manner. The NBTC's operation also focused on the distribution of utilization across sectors whether education, culture, the security of the state, or other public benefits which will bring the utmost benefits to both operators and public sectors as follows:

The Spectrum Management Master Plan (2012) has prescribed that there shall be an initialization of the television signals transmission in digital system within four years from the date that the Master Plan comes into force on 4 April 2012. According to the Broadcasting Master Plan No.1 (2012-2016), Strategy for the Transition to Digital Broadcasting Transmission, the implementation time frame has also been prescribed such as the commencement of digital audio broadcasting and television broadcasting transmission shall be done within four years, the measures to promote and support research and development of digital broadcasting receiver production shall be established within three years, the measures to promote and support digital broadcasting receiver for people with low income shall be established within three years, the number of households in large cities shall have capable of receiving digital audio broadcasting and television broadcasting transmission which are not fewer than eighty percent within five years, etc. In 2013, the NBTC has done the Thailand's transition from analog to digital terrestrial television, and granted the television broadcasting business operation license for the provision of digital terrestrial television network to 4 major national television service providers which are the Royal Thai Army, Public Relations Department, MCOT Public Company Limited (MCOT), and Thai Public Broadcasting Service, on 24 July 2013, and has granted licenses to use the spectrum for the provision of digital television services in the category of national business services to 24 National Channels on 24 April 2014. For the year 2014, the NBTC has implemented several activities as follows:



## 1. Areas for Signal Expansion and Viewing Digital TV under the NBTC's Action Plan

In the 1<sup>st</sup> year, there will be 11 digital television networks in Thailand and each network will have a broadcasting radius covering 11 provinces where the main stations located and nearby provinces. The broadcasting covers not less than 50 percent of number of households, or 11.45 million households of the totally 22.9 million households throughout the country.

In the 2<sup>nd</sup> phase of the licensing for the provision of digital television network service, on 1 August 2014, the network service providers must expand network service area to be covered additional 4 main stations in Roi Et, Chiang Rai, Sa Kaeo and Nakhon Sawan; followed by 4 more main stations in Nakhon Si Thammarat, Phuket, Trang, and Lampang on 1 October 2014, and another 5 main stations in Sakon Nakhon, Surin, Nan, Phetchabun, and Prachuap Khiri Khan on 1 December 2014, respectively.

For the year 2015, on 1 February 2015, the digital television network service areas will be expanded to cover additional 5 main stations in Kanchanaburi, Chumphon, Trat, Mukdahan, and Tak; followed by 5 main stations in Mae Hong Son, Ranong, Loei, Chaiyaphum, and Phrae on 1 April 2014, and another 5 main stations in Satun, Uttaradit, Bueng Kan, Si Sa Ket, and Yala on 1 June 2015, respectively.

1, 2 Areas for Signal Expansion and Viewing Digital TV



1



2

1 Set-top Box

2 Public Hearings on the Projects for Supporting the Public in the Transition to Digital Terrestrial Television

## 2. Setting up the Principles for Supporting the Public in the Transition to Digital Terrestrial Television

After having launched the digital television signal transmission since 1 April 2014, the public will be able to view TV programs through their existing televisions by installing digital television transceiver or an appliance device (Set-top Box) that generally connects to an existing television tuner and it will enable the transceiving of digital system or the users may choose to use a television with DVB-T2 system which allows a digital signal to be received.

The NBTC has supported the public in the transition to digital terrestrial television in form of distributing discount coupons to all households by using money which is the proceeds from the spectrum auction for radio or television broadcasting business operation so that the people are able access the digital terrestrial television service throughout the country by using the coupons received as a discount for purchasing whether the digital television that can receive digital signals or Set-top Box to enable the transceiving of digital system from existing analog television.

The Office of NBTC, therefore, has been assigned to implement the project to support people in the transition to digital terrestrial television, and the public hearings were held to receive comments from the public, in accordance with Section 28 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E. 2553 (2010). Apart from this, the public are able to submit their opinion or comments in writing through e-mail, fax, in person, or postal service to the Office of NBTC.

The public hearings were held 4 times as shown in Table 2





Table2: Public Hearings on the Projects for Supporting the Public in the Transition to digital Terrestrial Television

Region	Dates	Venue
1. North	4 July 2014	Empress International Convention Center The Empress Hotel, Chiang Mai
2. South	5 July 2014	Hansa JB Hotel, Songkhla (Hat Yai)
3. North Eastern	8 July 2014	Pullman Hotel, Khon Kaen
4. Central	10 July 2014	Hotel Swissôtel Le Concorde, Bangkok

Apart from the public hearings, the Office of NBTC also held the Focus Group Meeting on “Concept for Setting up Coupon Value which had taken the consumer protection and public interests into consideration” under the project to support people in their transition to digital terrestrial television, on 9 July 2014 at the Century Park Hotel Bangkok.

After the public hearings, the NBTC has proposed the guidelines for implementing the project to support people in their transition to digital terrestrial television to the National Council for Peace and Order (via Public Expenditures Follow-up and Audit Committee) for approval before distributing the 690 baht digital TV coupons to the public.



3

3 Digital TV Coupon





In supporting people on the transition to digital terrestrial television by distributing digital TV coupons, the Office of NBTC has made “digital TV coupons” which worth 690 baht for distributing to the people so that they can redeem or use as a discount when purchasing the Set-top Box from the companies participating in the NBTC project. The money used in this project is the proceeds from the spectrum auction for radio or television broadcasting business operation which was done at the end of 2013. When the people received their coupons, they can redeem it for a 690 baht Set-top Box (STB); however, if the STB’s price is more than 690 baht, they have to pay for the different amount by themselves. Another choice is that the people can use the coupons received as a discount for purchasing a digital television that can receive digital signals (iDTV) without having connected to STB.

The Office of NBTC has announced the list of 46 qualified companies participating in the project to support people in their transition to digital terrestrial television (as of 20 October 2014) and venues for redeeming the coupons which consists of Tesco Lotus, Big C, The Mall, Makro, Home Pro, Power Buy, Amorn Electronic Center, IT City, Seven Eleven, Family Mart, Nai In Bookstores, Index Living Mall, Tops Supermarket, MCOT Plc., Mega Home, JIB Computer Group Co., Ltd., Advice Holding Group Co., Ltd., Mega Market, including Electric Appliances Shops in each province. All coupons redeeming points will display the coupon redeem mark in front of the shops and the coupons can be redeemed until 31 May 2015. The NBTC also held a demonstration process of coupons redeeming for the Media on 8 October 2014 at the Office of NBTC so that they could understand all process of the coupons redeem.

1 Mark of Distributors participating in the Digital TV Coupon Project





### 3. The Distribution of Digital TV Coupons to People, the Facilitation, Follow-up and Monitoring the Digital TV Coupons Redeem in Phase 1

The Office of NBTC has held the Digital TV Coupons Handover Ceremony to the Thailand Post Co. Ltd., so that the company can distribute the coupons to people. In Phase 1, the coupons will be distributed in 21 provinces that having coverage of digital terrestrial television signal more than 80 percent of households

The Office of NBTC has designated the Thailand Post Co. Ltd., to deliver the coupons to people via registered mail starting from 10 October 2014. The households who will receive the coupons must be housing in the area of network's coverage in each province as follows:

1. Main Station Bangkok, covered the area of Nonthaburi, Nakhon Pathom, Pathum Thani, Samut Prakan, Samut Sakhon, Phra Nakhon Si Ayutthaya, Samut Songkram, Nakhon Nayok, Chon Buri, Chachoengsao, Ratchaburi, Suphan Buri, Kanchanaburi, Prachin Buri, Petchaburi and Saraburi (some areas)
2. Main Station Nakhon Ratchasima
3. Main Station Chiang Mai, covered the area of Chiang Mai and Lamphun
4. Main Station Songkhla, covered the area of Songkhla, Phatthalung and Pattani
5. Main Station Ubon Ratchathani, covered the area of Ubon Ratchathani and Amnat Charoen
6. Main Station Surat Thani, covered the area of Surat Thani
7. Main Station Rayong, covered the area of Rayong, Chanthaburi and Chon Buri
8. Main Station Sing Buri, covered the area of Sing Buri, Ang Thong, Lop Buri, Chainat, Saraburi, and Suphan Buri
9. Main Station Sukhothai, covered the area of Sukhothai, Phitsanulok, Kamphaeng Phet and Phichit
10. Main Station Khon Kaen, covered the area of Khon Kaen, Maha Sarakham and Kalasin
11. Main Station Udon Thani, covered the area of Udon Thani, Nong Khai and Nong Bua Lam Phu.

The public can redeem the digital TV coupons for the Set-top Box from 25 October 2014 onwards. Details are shown in Table 3.

2 1<sup>st</sup> Phase Digital TV Coupon Handover Ceremony to 4,645,000 Households in 21 Provinces.

3 The Postman delivers Digital TV Coupon to People



**Table 3:** Information on Digital TV Coupons Distribution in Phase 1

Round	Delivery Dates	Target Group	No. of Households
1	10 October 2014	People in 100 Sub-districts, 21 Provinces	4,645,495
2	28 November 2014	People in 100 Sub-districts, 20 Provinces (having coverage of digital terrestrial television signal more than 80 percent of households)	1,777,495
3	23 December 2014	People in 21 Sub-districts, 4 Provinces (having coverage of digital terrestrial television signal more than 80 percent of households)	623,401
4	28 January 2015	People in 38 Sub-districts, 5 Provinces (having coverage of digital terrestrial television signal more than 80 percent of households)	633,825
<b>Total</b>			<b>7,680,216</b>

*Source: Supply and Asset Management Bureau as of 28 January 2015*

### ● The Distribution of Digital TV Coupons in Bangkok

On 20 October 2014, the NBTC delegation leading by Lt. Gen. Dr. Perapong Manakit Pol. Col. Taweesak Ngamsanga, Asst. Prof. Dr. Thawatchai Jittrapanun, Ms Supinya Klangnarong, Mr. Takorn Tantasith, Secretary-General and Mr. Trairath Viriyasirikul, Deputy Secretary-General, had visited 4 venues which are the points for coupons redeeming in Bangkok as follows:



1. Digital TV Coupons Redeeming Point Tesco Lotus, Around Ekkamai - Ram Intra Expressway Branch
2. Digital TV Coupons Redeeming Point Big C Super Center, Ratchadaphisek Branch
3. Digital TV Coupons Redeeming Point Home Pro, Ratchadaphisek Branch
4. Digital TV Coupons Redeeming Point Seven Eleven, Pracha Uthit 17 (Huay Kwang) Branch

*1,2,3 NBTC, Secretary-General and Deputy Secretary-General of NBTC had visited the venues which are the points for coupons redeeming in Bangkok*

in order to monitor the readiness and availability of the service point for digital TV coupons and to receive comments or problems arising from the coupons redeeming process from the users. People can check the delivery status of digital TV coupons in 2 ways:

1. Check through NBTC website: <http://digital.nbtc.go.th> where the information of checking methods are provided.
2. Check through NBTC Call Center 1200 which is appropriate for the service users who are unable to check the delivery status via internet. They can call the NBTC Call Center 1200 which is the free service and inform the officer of household registration's 11-digit code number so that the officer can check the delivery status of the digital TV coupons and inform them of the result immediately. In addition, the Office of NBTC has published all information through internet channels such as NBTC website: <http://digitaltv.nbtc.go.th>, and social network: Facebook: [www.facebook.com/digitaltv.nbtc](http://www.facebook.com/digitaltv.nbtc), and so on.

Office of the NBTC has established the Center for Follow-up the data on Digital TV Coupons Redeeming Service in order to follow-up data in real-time by connecting data from all service points of coupon redeeming and show the result directly to the Center. The result includes all venue where coupon redeeming service occurs and other information of provinces, sub-districts and group of villages (tambon), number of the Set-top Boxes which were redeemed, list of companies who provided the redeeming services, list of households host or proxy who already redeemed the coupons, etc. In case that any companies participating in the project failed to follow the process, they will be unable to draw the money from the coupons. In addition, if it is found that any companies participating in the project involved in any corruption or fraud, they will also be unable to draw the money from the coupons with the Krung Thai Bank, and the Office of NBTC will revoke the companies' rights from the list of participating companies of the project, as well as suspend all payments done in the past.





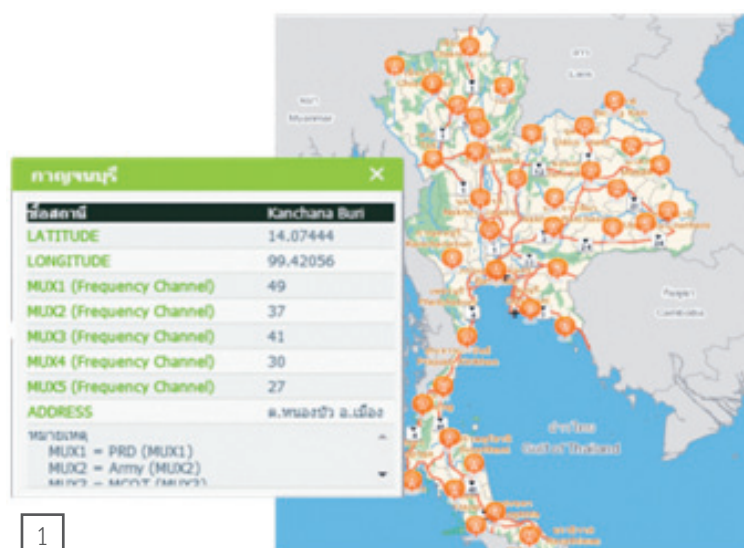
The companies may have been prosecuted under the law. Therefore, the NBTC would encourage the public, in case they found any problems of the services, to directly call the Call Center of the service provider at the telephone number listed on the product's box or file the complaint to the NBTC Complaint Center, call 1200.

In the year 2014, the Office of NBTC had distributed totally 7,046,391 digital TV coupons and it is found that approximately 2,925,000 coupons of 7,046,391 coupons were redeemed, or accounted for 41.5 percent of the coupons distributed. Details of the coupons distribution are as follows: 1<sup>st</sup> Round: distributed on 10 October 2014 for 4,645,495 coupons, 2<sup>nd</sup> Round: 28 November 2014 for 1,777,495 coupons, and 3<sup>rd</sup> Round: 23 December 2014 for 623,401 coupons.

In case that the digital TV coupons could not be completely redeemed (100 percent), the Office of NBTC will submit the rest budget to the Ministry of Finance as a state revenue.

#### 4. Development of Digital TV Service Area Monitoring System

To transfer knowledge and share information on the provision of digital terrestrial television network service for 39 main stations across the country and the information on digital TV service areas, which focusing on the “public” as the target group, to be used for direction finding of installing antennas in order to receive digital TV signal, in the first quarter of 2014, Office of NBTC therefore has developed a Digital TV Service Area Monitoring System, which is under the Project for Geographic Information System (GIS) Development for Broadcasting and Television Services Phase 2. The implementation of the project was based on information from radio wave propagation model and technical information of the network service provider. The monitoring system, in addition, has also been developed to facilitate the users to provide their feedback and suggestion from viewing digital TV to the Office of NBTC.

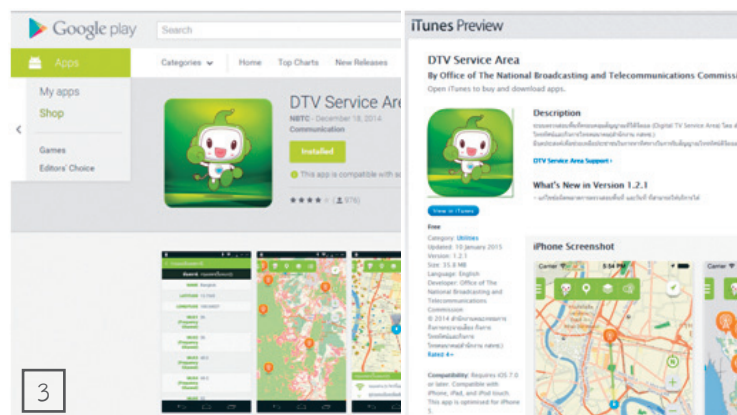


1 Digital TV Service Area Monitoring System

1



2



3

2 Digital TV Service Area Monitoring System

3 Usability of Digital TV Service Area Monitoring System through Mobile Application on Google Play and App Store

The Digital TV Service Area Monitoring System can be operated through web-browser from any personal computers by filing address: <http://dtvservicearea.nbt.go.th>. Moreover, to support the use of portable communication devices which is rapidly increased, the Office of NBTC has developed the system to enable the use through tablets and smart phones in both Android Operating System (Android) and iOS Operating System (iOS). The users can download the system from the Play Store and App Store respectively, by searching for “DTV Service Area” and the system could be downloaded and installed easily. After having officially launched on 12 August 2014, the number of the system’s viewers through website are 316,326 views, while the number of the system downloads for the Android Operating System and iOS Operating System are totally 38,697 and 19,000 downloads<sup>1</sup> respectively.

In addition, the NBTC also urged all 4 digital TV network service operators (5 networks) to install extra stations in the areas where there are insufficient coverage of core network service to ensure that the Digital TV signal covers up to 80 percent of the implementation plan.

<sup>1</sup> data as of 5 February 2015



## 5. National Economic benefits of Distributing Discount Coupons for Set-top Box and Digital TV Television

The Office of NBTC has studied the impact after having broadcasted digital terrestrial television since April 2014 (digital TV) continuously and it is found that the number of viewers of digital terrestrial TV increased constantly over a period of 10 months, especially after the distribution of digital TV coupons of the Office of NBTC for redeeming the Set-top Box. As a result, the number of the viewers of new digital TV channels (21 channels) has rose up from 7 percent in April 2014 to 24 percent in January 2015 which accounted for 14.5 million viewers of new digital TV channels which leads to the conclusion that Thailand is a society that tends to respond to technological change. From a constant increase of the growth of digital TV viewing, the switching of TV signal transceiver from analog to digital system since December 2014, and the viewing of TV channels through the Set-top Box, the Telecommunications Tariff Bureau, Office of NBTC, has forecasted the National Economic benefits of Distributing Discount Coupons for Set-top Box and Digital TV Television as follows:

### ● Direct Benefits to Economics

The digital TV coupons distribution to 22.9 million households, 1 coupon for each household to be used for a discount for 690 baht cash, has made an amount of money of at least 15,801 million baht into the economic system which is the supporting money that allocated by the NBTC. The direct benefit to economics is the huge amount of money invested in the sector of production and distribution of Set-top Box; that is, when people received a support of 690 baht coupon, it made their decision-making to purchase a Set-top Box much more easier whether the Set-top Box which is priced 690 baht or more. This is because those people do not pay for the full amount and, as a result, it enables the supplying companies to increase their sales volume. The average price of a standard Set-top Box in the market is about 1,300 baht, and there are 22.9 million households who have the right to receive coupons. If all coupons are redeemed, it would make the value-added to the economy in trade and investment sector for 29,770 million baht, causing a public revenue from the 7 percent value-added tax, for approximately 2,084 million baht. Also, there is a another juristic person tax charging from the Set-top Box selling companies. It is clearly seen that the digital TV coupons distribution have created accrued benefits on employment rates in many parts of the whole process and it also help increase the large amount of money from the consumption of goods and services.



### ● Indirect Benefits to Economics

The access to digital television viewing of the people throughout the country has ensured the program production companies, the advertising companies and TV channels owners of the investment and reduced risk on having uncertain revenue. According to the Broadcasting Business Act 2008, Section 23, it is prescribed that the maximum amount of time for advertisement in television service shall not exceed twelve and a half minutes per hour or shall not exceed an average of ten minutes per hour and in case of calculating 24-hour of the advertisement, the expense in digital television service, which have only 24 channels at present, will be approximately 5,000 - 100,000 baht per minute which is considerably lower than the cost in the analog television. This is because of the fact that there is more competition, more channels, and it has resulted in economies of scale, which provides more opportunities for the advertisement to small and medium enterprises (SMEs). Having considered the advertisement in prime time or during 7 - 10 p.m. which occupied the largest number of the viewers of the day and if the digital television network covered all area of service, the digital television channels companies would charge for advertising time up at the average maximum of 100,000 baht per minute due to high demand during this period of time. The companies' revenue is accounted for 3.75 billion baht per day per channel. So is the value added in the sector of digital TV advertising revenue of all 24 channels at least 32,850 million baht per year, may be worth more when combined. In the case of advertising revenues from the value added at regular intervals as well. This will make the state's revenue from VAT as of 2299.5 million baht per year. Therefore, the value-added of advertising revenue in the digital TV business of 24 channels will be not less than 32,850 million baht per year, or more when calculating with the value-added from the advertising revenue in a regular intervals. This will increase the state's revenue immediately of 2,299.5 million baht per year from the VAT.

In conclusion, the distribution of digital TV coupons has induced a positive benefit in both directly and indirectly to the economy of Thailand. The total value-added which is about 63 thousand billion baht has applied directly in the sector of trade, investment, industrial manufacturers and suppliers of the Set-top Box for 30 thousand billion baht, and indirectly value-added of advertising revenue for approximately 33 thousand billion baht per year which accounted for 0.3 percent of national income. This is worth value and a positive result when compared with the initial supporting fund of around 15 thousand billion baht.

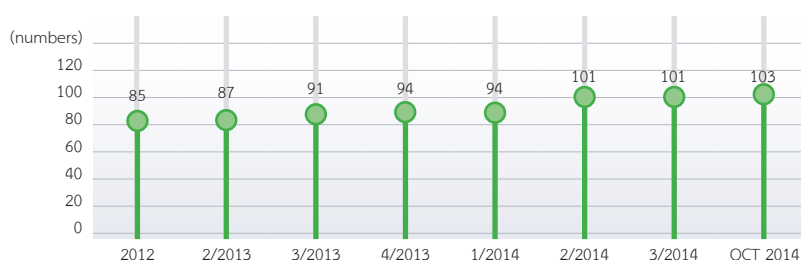




## The Success from 3G Auction

After having launched the provision of 3G service on the 2.1 GHz frequency band, the usage rate of 3G service through mobile phones has increased rapidly which leads to the increase of the use of Internet mobile as well. This is consistent with the International Telecommunication Union (ITU) 2014 Annual Report on Measuring Information Society which identified that Thailand has the highest growth rate of internet usage which ranked No.1 in the world, rising up from ranking No. 105 in 2012 to No. 71 in 2013. It also resulted in the improvement of the Thailand's IDI (ICT Development Index) rank of 166 countries throughout the world, from ranking No.81 to No.71 in 2013 which has upgraded the ICT development of Thailand to be in the ICT world average level and ranked in the top-10 list of the countries in Asia-Pacific region. This shows the potential of communications system in Thailand which has a dramatic development and it is most likely to be steadily developed in the future.

Chart 2: Mobile Phone Numbers in all Frequency Band (in Quarter)



Source: Telecommunications Tariff Bureau

In overall, the number of mobile phone in all frequency band in the market for mobile phone services after having launched 3G service is 103 million numbers of which 73.5 million numbers are subscribed the mobile service on the 2.1 GHz frequency band, or accounted for 71.36 percent while the rest 29.5 million numbers are subscribed the mobile service on the other frequency bands, or accounted for 28.64 percent, details as shown in Chart 2.

The growth of mobile phone usage in 3G system which has increased in a great leap forward feature is an indication of the excellent success of the NBTC's 3G auction. The growth rate of data services usage on 3G system will also make Thailand become the attractive point of foreign investors. The growth of data service usage is also in line with the government policies on digital economy and approved that the 3G auction has brought the benefits by earning a large amount of revenue to the country, producing an economic value-added in several dimensions, driving the economy, creating both direct and indirect investment in the telecommunications industry in either workforce in industry sector or equipment manufacturing for the expansion of telecommunication networks which is the national infrastructure. In the aspect of a constant investment of the enterprises, there will be a circulation of capital in economic system for approximately hundreds of millions baht in the country. Moreover, it also help raising up the industrial, business and service sectors as well as enhancing the competitiveness of the country and creating more competition in the industry.



The free and fair competition and the spectrum auction can support the business sector more efficiently, and, as a result, the private companies who won the bid are able to generate their revenues from business operation with the satisfied returns to their shareholders, including paying tax to the state which help expanding the economy. In the future, the development of Thailand will be in done in a breathtaking pace, in terms of enhancing the competitiveness of the country from the provision of 3G service to 4G service. More access of users to a mobile phone network, mobile Internet and information have resulted in the development of the capabilities of people and the knowledge transfer through communication network.

On 22 December 2014, the NBTC has received the 2<sup>nd</sup> installment of the spectrum auction from the winners and licensees to use the spectrum for international mobile telecommunications in frequency range of 2.1 GHz (3G) which consists of the Advanced Wireless Network Co., Ltd. (AWN), DTAC Network Co., Ltd. (DTN) and Real Future Co., Ltd. (RF) for the totally amount of 11,134.69 million baht after having received the 1<sup>st</sup> installment for 22,269.40 million baht. The total amount of spectrum auction fees that the NBTC has already submitted to the State is 33,404.09 million baht. Those companies have to deliver the last installment to the NBTC at the amount of 8218.91 million baht which will be due on 22 December 2015. Details as shown in the Table 4.

Table 4: Payment of Spectrum Auction Fee in 2014

	Spectrum Auction Fee	Spectrum Auction Fee Payment (million baht)		
		1 <sup>st</sup> Installment	2 <sup>nd</sup> Installment	3 <sup>rd</sup> Installment
AWN	14,623	7,824.40	3912.19	2,886.41
RF	13,500	7,222.50	3611.25	2,666.25
DTN	13,500	7,222.50	3611.25	2,666.25
<b>Total</b>	<b>41,623</b>	<b>22,269.40</b>	<b>11,134.69</b>	<b>8,218.91</b>

source: Facilities-based Telecommunications Business Licensing Bureau

After having been granted licenses since 7 December 2012, the NBTC has followed-up and urged those three companies to comply with the licensing conditions strictly especially the conditions on service rate which must be reduced to not less than 15 percent. It is found that all service rate is in accordance with the NBTC's condition regarding the rates of mobile phone service in the 2.1 GHz frequency band which is decreased more than 15 percent compared to service rates on the date of the license issuance. Details as shown in the Table 5.

Table 5: Inspection of the service charge reduction of the 3G licensees in 2014

unit: baht/percent

	Voice	SMS	MMS	Internet
Average Rate at 7 December 2012	0.97	1.56	3.90	0.33
Service rate that must be reduced	0.82	1.33	3.32	0.28
AWN	-21.00	-15.00	-27.00	-31.00
RF	-27.00	-23.00	-20.00	-16.00
DTN	-51.00	-42.00	-20.00	-43.00

source: Working Group to Follow-up and Supervise the Business Operation of International Mobile Telecommunications in frequency range of 2.1 GHz



## Preparation for Spectrum Auctions in the Frequency Bands of 1800 MHz and 900 MHz for the Development to 4G System and to Support the Needs for Internet Use of the Public

From the International Telecommunication Union (ITU) 2014 Annual Report on Measuring Information Society, ITU has confirmed that Thailand has a very high rate for Internet access. Therefore, the NBTC need to allocate spectrum to adequately support the demand of spectrum use and develop the country to be able to compete with other countries, particularly in the ASEAN countries where the spectrum have been assigned for accommodating the growth of technology usage both for wired and wireless. In the year 2014, the NBTC has prepared for spectrum auction in the frequency band of 1800 MHz and 900 MHz which is under the concession of CAT Telecom Public Company Limited and TOT Public Company Limited respectively, as detailed in Table 6, in order to support the development of 4G LTE of Thailand as well as to support the internet use of the public which having a rapid increase of the growth rate. The spectrum auction will also be a part of all drivers to force Thailand into the digital economy strongly and securely.

**Table 6:** Details of Frequency in the Bands of 900 MHz and 1800 MHz under the Concession

Licensees	Concessionaire	Frequencies (MHz)	Expiry Date of Concession
CAT Telecom Public Company Limited	True Move Company Limited	1710.0 - 1722.6/1805.0 - 1817.6	15 September 2013
	Digital Phone Company Limited	1747.9 - 1760.5/1842.9 - 1855.5	15 September 2013
	Total Access Communication Public Company Limited	839.0 - 849.0/884.0 - 894.0	15 September 2018
		1722.6 - 1747.9/1817.6 - 1842.9 1760.5 - 1785.0/1855.5 - 1880.0	15 September 2018
TOT Public Company Limited	Advance Info Services Public Company Limited	897.5 - 915.0/942.5 - 960.0	30 September 2015

Source: Facilities-based Telecommunications Business Licensing Bureau



## 1. Preparation for Spectrum Auction in Frequency Band of 1800 MHz

In 2014, the NBTC has set up the (draft) NBTC Notification on Criteria and Procedure for Licensing to Use the Spectrum for Telecommunications Service in 1710 - 1722.5 MHz/1805 - 1817.5 MHz and 1748 - 1760.5 MHz/1843 - 1855.5 MHz B.E. .... and the (draft) NBTC Notification on Radio Frequency Plan for International Mobile Telecommunications (IMT) in 1710 - 1785/1805 - 1880 MHz. The designation of frequency channels and conditions of radio frequency usage in those bands and the Notification on Radio Frequency Plan in 1800 MHz have included criteria and spectrum auction model, procedures for bidding the spectrum auction, qualification of the bidders, rules of auction, and the licensing conditions which is appropriate for the current telecommunications market environment. The auction will be conducted for 2 licenses in the frequency band of 1800 MHz (which the concession had ended in 2013), at 12.5 MHz for each license, totally 25 MHz, with 19 years licensing period starting from the date of license granted, and the starting price for bidding is 11,600 million baht. In addition, the auction will be held before the consumer protection period has ended, as prescribed by the NBTC Notification on the Temporary Measure for Consumer Protection in Case of Termination of the Concession for Mobile Phone Service Provision B.E. 2556 (2013). The spectrum cap also set up so that each operator participating in the auction can hold only one license to prevent the monopolies in the telecommunications market.

The NBTC has set up policy objectives in spectrum auction for telecommunications service in Thailand under the purpose of frequency assignment as prescribed by the Constitution on the basis of public interests concept and free and fair competition which can prioritized as follows: 1) utilizing the spectrum for the utmost benefit to the public 2) promoting competition in the market with the aim to increase quality of service and reduce the cost of service provision for the benefit of the general public 3) having transparency and clarity in the auction design and process which will enable stakeholders to understand and accept the results of the auction to be taken place 4) developing telecommunications communication in both infrastructure and services provision to accommodate the increasing demand and services 5) a clear policy on spectrum management will help entrepreneurs and investors to be able to plan ahead and lead to the development of sustainable and telecommunications market 6) Generating revenue from the auction to the state.

The NBTC also set up license's conditions focusing on the promotion of free and fair competition and measures for society and consumer protection for the ultimate benefits of the public such as





- The licensee must supply the telecommunications network for the service provision to cover a number of population of not less than 40 percent of the total population within 4 years, which does not create excessive burden for operators.
- The licensee must comply with the NBTC Notification on the Use of the Telecommunication Infrastructure Sharing B.E. 2556 (2013) and the NBTC Notification on the Domestic Mobile Phone Network Interconnection B.E. 2556 (2013), in order to enable small or new operators to invest in the telecommunications industry.
- The licensee must supply and comply with the Corporate Social Responsibility (CSR) and set up a Plan for Consumer Protection which has to be approved by the NBTC, as well as support the data transmission speed which is not less than the speed rate prescribed by the NBTC in the Criteria on Standards and Quality of Telecommunications Service Provision (Data) of the NBTC.

1 Public Consultation Meeting on the Draft NBTC Notification on Criteria and Procedure for the Licensing to Use Frequency in the Band of 1800 MHz and the Draft NBTC Notification on Radio Frequency Plan for Telecommunications Service in the Band of 1800 MHz

Both Notifications have been published for comments and suggestions in written from the public via various channels such as electronic mail, fax, submission in person, or registered mail to the Telecommunications Business Licensing 1 Bureau. Also, the NBTC has held a public consultation meeting on the Notifications on 28 May 2014 at Imperial Queen's Park Bangkok Hotel in order to obtain comments and suggestion from the stakeholders and take all comments and suggestion into the consideration of improving the (draft) Notifications for the completion before proposing to the NBTC for its approval and being published in the Royal Gazette.





## 2. Preparation for Spectrum Auction in Frequency Band of 900 MHz

The NBTC has a resolution on the spectrum in the frequency band of 900 MHz in its meeting on 14 May 2014 which approved the Draft NBTC Notification on Criteria and Procedure for the Licensing to Use Frequency in the Band of 897.5 - 915.0 MHz/942.5 - 960.0 MHz B.E. .... and the Draft NBTC Notification on Radio Frequency Plan for International Mobile Telecommunications (IMT) in the Band of 895 - 915/940 - 960 MHz, and the guideline for obtaining the public comments and suggestion on the Notifications which had been considered by the Sub-committee for the Preparation of the Licensing to Use the Frequency in Band of 1800 MHz and 900 MHz and the Telecommunications Commission's Meeting, respectively. The main content of the NBTC Notification on Criteria and Procedure for the Licensing to Use Frequency in the Band of 897.5 - 915.0 MHz/942.5-960.0 MHz B.E. .... has covered all matters concerning the auction such as frequency to be licensed to use which will be 2 sets of frequencies and the bidders are able to bid for only one set of frequency or both sets; the licensee's qualification which shall have no connection with any other licensees, the auction will be done in multi-rounds with simultaneous ascending bid auction; in case that there are less or equivalent bidders to the number of the frequency sets to be licensed, the NBTC will cancel the auction and set up a new date of auction as appropriate; the minimum price of the licensing to use the frequency for the 2x10 MHz is 11,260 million baht, and the 2x7.5 MHz is 8,445 million baht. The licensing period will last for 15 years starting from the date of the license granted and after the concession for Mobile Phone Service Provision between the Telephone Organization of Thailand and Advanced Info Service Public Company Limited has ended; the licensing scope which covers telecommunications services provision throughout the country in the nature of telecommunications network provider and service provider, and telecommunications facilities provider; and the license conditions, etc. The above-mentioned Draft Notifications are in the process of public hearing in written via various channels such as email, fax, registered mail or submission in person to the Office of NBTC.



### 3. Progress of Operation

Apart from the spectrum auction in the frequency band of 1800 MHz (concession ended in 2013) and frequency band of 900 MHz (concession will be ended in 2015), the NBTC has a plan to hold the spectrum auction in the frequency band of 1800 MHz (concession will be ended in 2018), in which the licensing period lasts for 15 years before the end of the concession.

However, the National Council for Peace and Order has its order No.94/2014 dated 18 July 2014 regarding to the Suspension of the Implementation according to the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services, which resulted on the spectrum auction for telecommunications service, that is the spectrum auction in the frequency band of 1800 MHz and the spectrum auction in the frequency band of 900 MHz which are scheduled to be conducted in August and November 2014 respectively, have to be delayed for one-year.

The frequency is a national resource which can be used forever, the efficient frequency assignment is considered as a basic public utility which is the upstream for driving the national economy to be strong and stable. Failure to utilize the frequency will reduce the potential opportunities of the country. Thus, the NBTC will organize the spectrum auction in the frequency band of 1800 MHz and 900 MHz in an effective, transparent, fair and accountable manner for the utmost benefit the, and with regard to the state policy on budget expenditure, the stability of state, and public interests.





## Consumer Protection in Broadcasting and Telecommunications Services

In 2014, the NBTC has done the activities and projects for consumer protection in broadcasting and telecommunications which are as follows:

### 1. Consumer protection for temporary period in case of termination of concession for the provision of mobile phone service

To comply with the order of the National Council for Peace and Order No.94/2014, on 31 August 2014, the NBTC has issued the NBTC Notification on Consumer Protection for Temporary Period in Case of Termination of Concession for the mobile phone service provision of True Move Company Limited and Digital Phone Company Limited in the frequency band of 1800 MHz in order to extend the duration of protecting consumers from 15 September 2014 to 18 July 2015. This is to ensure that the users of mobile phone services on the frequency band of 1800 MHz shall be continuously communicated through the existing mobile phone services.

### 2. Establishment and Strengthening Consumers Network in Broadcasting and Telecommunications Services

The NBTC has exchanged and produced the documents or information resource concerning consumer protection as well as establishing network for driving the public policy on consumer protection and the right and freedom to communicate of the public. In this regard, Ms. Supinya Klangnarong, a Commissioner in Consumer Protection and Promotion of Right of the People in Broadcasting Service, and Mr. Prawit Leesatapornwongsa, a Commissioner in Consumer Protection and Promotion of Right of the People in Telecommunications Service, have organized the Public Forum for Policy Consultation on Consumer Protection and Promotion of Right of the People in broadcasting and telecommunications services as details shown in Table 7.





**Table 7:** Establishment and Strengthening Consumers Network in Broadcasting and Telecommunications Services

Activities	Title	Dates/Venues
Seminar	“The Impact and Influence of TV Soap Opera on Children and Women’s Rights” and “Practice in the Production of Soap Opera for Children and Women”	18 September 2014 At The Sukosol Hotel, Bangkok
Seminar	“Silencing Media Coverage of Migrants: The Wider Repercussions in Thailand”	1 September 2014 At The Sukosol Hotel, Bangkok
Seminar	Protecting the Rights of Children and Women in TV Programs and News	18 August 2014 At The Sukosol Hotel, Bangkok
Public Forum	Protecting consumers from being Exploited in “Set-top Box Redeeming”	6 August 2014 At Century Park Hotel, Bangkok
Public Forum	Policy on Consumer Protection and the right and freedom to communicate of the public on “Potential Direction of Media Reform”	7 August 2014 At The Sukosol Hotel, Bangkok
Focus Group	“The Concept of the Determination of Coupons Value which based on Consumer Protection and the Public Interest”, under the Project to Support of the Transition to Digital Terrestrial TV	9 July 2014 At Century Park Hotel, Bangkok
Meeting for Hearing the Explanation of the Sub-committee on Consumer Protection in Broadcasting Service	Co-Responsibility for Controlling the Problem of Consumer Deceit in Satellite Channel with 21 Network Providers for Broadcasting Service (Non-frequency used service) in TV subscription Type	8 July 2014 At The Sukosol Hotel, Bangkok
Public Forum	“Program Initiative for Children, in Digital Television” to communicate information and obtain comments and suggestions for the Operators, TV Producers in the Children, Youth and Families Channels if Digital TV so that they shall be taking part in the support and development of learning including the imagination creativity for the children, and the youth as well as strengthening the families’ institution.	21 May 2014 At Century Park Hotel, Bangkok
Public Forum	“End of Concession: How the True Visions Protects their Subscribers” to seek solutions for True Visions subscribers and the impact on subscribed consumers and the policy on consumer protection	20 May 2014 at the Office of NBTC, Bangkok
Seminar	“Digital TV: What the Consumers Get” and “What the People Get from the Transition to Digital Terrestrial Television System”	9 April 2014 at the Office of NBTC, Bangkok
International Conference, in cooperation with the Foundation for Consumer and the Consumer International	International Conference: Consumer Protection in the Digital Age	3-4 April 2014 at The Empress Hotel, Chiang Mai
Meeting	The NBTC Notification on Standard of Contract for the Service Provision of Pay-TV Subscription B.E. 2556 (2013)	18 February 2014 at the Office of NBTC, Bangkok



### ● NBTC Public Forum

The Public Forum were held for policy consultation on consumer protection and the rights and freedom to communicate of the people under the NBTC Public Forum, details shown in Table 8

**Table 8:** The Public Forum for policy consultation on consumer protection and the rights and freedom to communicate of the people under the NBTC Public Forum

Activities	Title	Dates/Venues
The 1 <sup>st</sup> NBTC Public Forum	<b>“Setting up Measure, Stop! the Exploited Operation and Annoying Advertisement”</b> and Brainstorming on the NBTC Notification on the Action which may Exploit the Consumers in Telecommunications Service	22 May 2014 At Century Park Hotel, Bangkok
The 2 <sup>nd</sup> NBTC Public Forum	<b>“Preparing and Preventing the SIM Card Switch Off”</b>	29 May 2014 At Century Park Hotel, Bangkok
The 3 <sup>rd</sup> NBTC Public Forum	<b>“The World Cup: Games or Gambling and the Challenging Role of Media”</b>	18 June 2014 At Century Park Hotel, Bangkok
The 4 <sup>th</sup> NBTC Public Forum	<b>“Problems and Solution: The Impact of Electromagnetic Radiation from Mobile Phone Towers”</b>	19 September 2014 At Miracle Grand Convention Hotel, Bangkok
The 5 <sup>th</sup> NBTC Public Forum	<b>“Sue for Libel”</b> , Tool for blocking the Monitoring/ Operation	24 September 2014 At The Sukosol Hotel, Bangkok
The 6 <sup>th</sup> NBTC Public Forum	<b>Rights and Freedom to Communicate of the People: Radio Broadcasting Business</b>	2 December 2014 At Asia Hotel, Bangkok



1

1 The Public Forum for policy consultation on consumer protection and the rights and freedom to communicate of the people

### 3. Pilot Project, “Phetchaburi Model”, the Solution for Hype

The pilot project, “Phetchaburi Model” has been set up under the Resolution of the Broadcasting Commission (BC) Meeting on 20 January 2014 which had approved the 2-year extension of license period after a year out of the 177 channels of non-frequency used television service or satellite channels. There are 4 channels that are under the process of consideration to grant the license renewal by the Office of the NBTC due to being complained and the complaints have not yet been resolved. Moreover, 2 channels are in the process of investigating program content according to the complaints and the BC Meeting has its resolution to grant the license renewal with the conditions that if it is found that, from the investigation result, the licensee has been guilty as being complained, the BC will grant the license renewal for one year with the condition that the licensee shall report additional information to the Office of NBTC and the Sub-committee on Consumer Protection on Broadcasting Service so that they propose to the BC Meeting for consideration by 30 days. For the case of the advertisement without authorization from the Food and Drug Administration (FDA), which is a condition of a measure for resolving the hype problems of food, drug and health products via radio and television, the Office of NBTC has worked closely with the FDA. However, the main driver of monitoring is the consumers network who realize the importance of the issue.



On 23 January 2014, the NBTC, in cooperation with the Consumers' Right Protection Center of Phetchaburi, had organized the workshop for establishing consumer network on radio and television media or "Phetchaburi Model" at Novotel Hotel Cha-am, Phetchaburi. The objectives of the workshop are to discuss a common approach to solve the hype problem of food, drug and health products via radio and television. The workshop was attended by the representatives of related organizations in the province and public agencies such as members of the Senate of Phetchaburi province, Deputy Governor of Phetchaburi province, media scholars, Phetchaburi Press Association, Provincial Public Health Office, National Federation of Community Radio, and the Consumer Federation.

The coordinator of the Consumers' Right Protection Center of Phetchaburi presented to the meeting that the Center has been founded in 2010 to raise awareness on consumers' rights and establish the consumer network for driving the public policy, managing plans, and receiving complaints. In 2013, the Center had monitored radio stations in the province and found that there were hype advertisement on products which made the consumers misunderstood in essence of the products such as mushroom extract, germ rice oil, rice bran oil, and beverage for women. The Center had forwarded all of the information that monitored and recorded to the Office of NBTC for their further legally action. It is expected that the pilot project of prototype model will help raise the level of problem to become a provincial strategy.

The meeting acknowledge that the Phetchaburi will provide their cooperation and be the prototype model to resolve the problem of the hype advertisement on products which is a major problem that affects people in the province.

*2,3,4,5 Workshop for establishing consumer network on radio and television media between the Office of NBTC and Consumer Rights Protection Center in Phetchaburi 23 January 2014*





The NBTC, as the regulator who regulates the licensees of radio and television services, will provide its support for strengthening the consumer organizations, and establishing the cooperating mechanism with related local government agencies, including having a concrete cooperation on information exchange and cases with the Food and Drug Administration (FDA) that is the condition of the satellite TV license renewal after one year operation. If the “Phetchaburi Model” has been successful, it will be useful for regulating the broadcasting services and strengthening the media consumers, and will be expanded to implement in other provinces as well. From the discussion, there are some interesting suggestions and proposals to be implemented such as the appointment of a working group in provincial and district levels, the establishment of consumer network to provide information, monitor, and develop capability of the network, providing support to implement prototype areas and community radio stations, setting up a strategy on “Media Literacy” in the province, producing media for advertising in the good media, etc. This includes providing information and transferring knowledge to consumers and community radio stations in Phetchaburi, and creating more channels for complaint.

#### 4. Signing Memorandum of Understanding (MOU) between the Office of NBTC, Foundation for Consumers and Consumers International (CI)

The NBTC, headed by Commissioner Supinya Klangnarong and Commissioner Prawit Leesatapornwongsa, has signed Memorandum of Understanding (MOU) between the Office of NBTC, Foundation for Consumers and Consumers International (CI) on 31 March 2014 at the Office of NBTC. The objectives of the 3-year MOU are to establish the collaboration and build knowledge body in consumer protection in the broadcasting services. The cooperation framework consists of setting up seminars, meetings, knowledge and experience exchange, human resource development, consumer network establishment and strengthening in broadcasting service, and information and documents exchange. In 2014, the parties had co-organized some activities such as “International Conference: Consumer Protection in the Digital Age” which will be held in Thailand, and Trainings for the staff of the Office of NBTC on the concept for consumer protection and strengthening the consumers in broadcasting services at provincial level.



## 5. Launching the “Center for Monitoring Illegal Content Advertising on Radio and TV” to reform the consumer protection, 24 hours monitor and collect evidence on radio and TV, coordinate with the Food and Drug Administration (FDA) and the Royal Thai Police (RTP) to penalize the offenders

On 9 April 2014, the NBTC has established the “Center for Monitoring Illegal Content Advertising on Radio and TV” at the Office of NBTC, Bangkok, to be responsible for monitoring content broadcasting in radio stations and television, and recording as evidence for prosecuting the offender, protecting consumers from being victim of inequality products or services, and preventing consumers from being induced to be engaged in something for the benefit of the advertising publishers, since the illegal information monitoring in the past could not be done in due time and lack of sufficient evidence to be used for conducting legal penalties.

In the first year, the operation has covered 80 stations which can be divided into TV stations, Cable TV Channels and Satellite TV Channels for 40 stations, and Main Radio Broadcasting Stations and Community Radio Stations in Bangkok and Vicinities for 40 stations. The monitoring system of messages and illegal content can be divided into two main steps; the first step is to monitor by using software system, and the another step is to monitor by the staff of the Office of NBTC who will monitor advertising spots and program contents broadcasting across 80 stations for 24 hours a day and 7 days a week via the internet in a second-to-second manner. This monitoring system is a audio comparison technology which called “Audio Finger Print” therefore it can report all broadcasting advertisement or required content if there are any channels or programs broadcasting messages or illegal content, broadcasting time, or number of broadcasting advertisement, as well as storing advertising content, program content, and retroact broadcasting audio files to be used for referencing the broadcasting content, with a real-time result demonstration.

1,2 Opening Ceremony of the Center for Illegal Content Monitoring on Radio and TV Office of NBTC, 9 April 2014

3 The Operation of the Center





The advertising database will be recorded at the host computer for 60 days. In the case that the broadcasting content had been founded illegal under the Criminal Code, Article 112 or libeled or hype advertising or advertising without authorization from related organizations including FDA, the Office of the NBTC will collect data and coordinate with the organization concerned with the case, such as the Food and Drug Administration (FDA), Royal Thai Police (RTP), etc., for their further action.

## 6. Campaign on encouraging the prepaid mobile phone users to protect their rights, keep their numbers, save their money by registering SIM cards through the “2 Shots (Song-Shae)” application

In the continuation of the action for protecting consumers in the year 2013 which the operators must comply with the NBTC Notification on Maximum Rate of Telecommunications Service Charges for Domestic Mobile Phone Service (Voice) B.E.2555 (2012) prescribing that the operators shall not charge the users for mobile phone service (voice) more than 99 stang (cent) per minute, must reduce the fees for mobile phone number portability from 99 baht to 29 baht, and the process of porting a mobile phone number shall be completed by 3 days, as well as the users of pre-paid mobile phone services shall receive at least 30 days of validity period at every top up and the validity days can be accumulated up to a maximum of 365 days, and when the service contract has been terminated, the users shall have their accrued money refunded within 30 days or may transfer the money to the other numbers in the same network, in 2014 the NBTC, therefore, encourage the prepaid mobile phone users to protect their rights, keep their numbers, save their money by registering SIM cards through the “2 Shots (Song-Shae)” application at all operators’ shops, points of service with a “2 Shots (Song-Shae)” mark, or 7,700 branches of 7/11 convenience store, throughout the country. The users need to show their identity card, passport, or any other identification documents issued by a government agencies. The SIM card registration will help accomodating the users to refund their accrued money from their operators after the termination of service and reducing the number of problems of using SIM cards in the crime by the wrongful livelihood.

1 Campaign on encouraging the prepaid mobile phone users to register SIM cards



1







On 26 September 2014, the Office of NBTC, in cooperation with CP All Public Company Limited had signed the Memorandum of Cooperation on Data Collection for Prepaid Mobile Phone Users' SIM Card Registration in order to open a new channel of service for new SIM card registration at the 7/11 convenience stores. In the pilot phase, the service will be available at 19 branches in Bangkok and its vicinities. Later, on 26 December 2014, the Office of the NBTC had signed a Memorandum of Cooperation on Data Collection for Prepaid Mobile Phone Users' SIM Card Registration via Smartphone system under the "2 Shots (Song-Shae)" Application with Ekachai Distribution System Company Limited and Big C Supercenter Public Company Limited. The NBTC also held campaign activities in several areas such as UD Town Exhibition Plaza, Udon Thani, and City Walk Exhibition Plaza of the Mall Nakhon Ratchasima, etc., in the cooperation of representatives of mobile phone operators which are CAT Telecom Public Company Limited, TOT Public Company Limited, Total Access Communication Public Company Limited, True Move Company Limited, and Advanced Info Service Public Company Limited.

In 2014, the "2 Shots (Song-Shae)" application has stimulated the registration of SIM cards of prepaid mobile phone service users, for both new and existing users, in order to verify the numbers' ownership, protect the rights of users, get the money refunded when terminating the service, prevent the illegal or crime use of mobile phone numbers, including using mobile phones to detonate explosives for sabotage which leads to the loss of life and property of the public. The SIM card registration also help the government officers to find out the perpetrators to penalize and help building a happy and secure society by reducing social problems.

2 Signing Ceremony of Memorandum of Cooperation With CP All Public Company Limited

3 Signing Ceremony of Memorandum of Cooperation With Ekachai Distribution System Company Limited and Big C Supercenter Public Company Limited







The Office of NBTC has conducted the campaign on prepaid mobile phone SIM card registration for mobile phone users by creating “2 Shots (Song Shae)” application to be used in 10 provinces which are Bangkok, Samut Sakhon, Ayutthaya, Chon Buri, Phitsanulok, Chiang Mai, Udon Thani, Nakhon Ratchasima, Surat Thani, and Nakhon Si Thammarat, so that the users of prepaid mobile phone, both existing and new users are able to register their SIM card through the “2 Shots (Song Shae)” application to verify their ownership of mobile phone numbers, as well as to protect their rights to refund the outstanding money from their top up when they terminate the services.



From the expansion of the SIM card registration with “2 Shots (Song Shae)” application to more than 50,000 dealers across the country including 7/11 convenience store, Tesco Lotus, and Big C Super Center since 27 June 2014, there are 1,192,224 Sim card registrants and it is expecting that the number of SIM card registration will be constantly increased as detailed in Table 9.

**Table 9:** Prepaid Mobile Phone SIM Card Registration by “2 Shots (Song Shae)” Application

	“2 Shots (Song Shae)”		Others		Total
	New Sim card	Existing Sim card	New Sim card	Existing Sim card	
AIS	169,347		3,818	1,691	547,895
AWN			294,563	78,476	
CAT	11,463		18,538		30,001
DTAC	149,102		25,097	12,291	431,639
DTN			168,988	76,161	
RFT	78,583		55,323		133,906
RM					
TOT	32,050		16,733		48,783
<b>Total</b>	<b>440,545</b>		<b>751,679</b>		<b>1,192,224</b>

\*Number of SIM Card Registration from 27 June 2014 to present

Source: Numbering Management Bureau



1 The Office of NBTC, in cooperation with 5 Mobile Phone Service Providers, has launched a new channel for Stopping SMS SPAM



## 7. Launching Channel for Stopping Unintended Subscription of SMS Service, or SMS SPAM

The NBTC has received a number of complaints from mobile phone users of receiving commercial SMS in form of advertising messages of products, inducing to subscribe services such as fortune telling, football gambling, or downloading clips, games or video and other forms sent by content providers to their mobile phones which have annoyed the users. In some cases, the users were charged for SMS service at a large amount of money. To resolve the problem, on 6 March 2014, the Office of NBTC, in cooperation with the mobile phone service providers namely: CAT Telecom Public Company Limited, TOT Public Company Limited, Total Access Communication Public Company Limited, Real Move Company Limited, Real Future Company Limited, and Advanced Info Service Public Company Limited, has launched a new channel for stopping unintended subscription of SMS service, or SMS SPAM through IVR system \*137 free of charge for all networks (except TOT3G, the cancellation can be done by typing “the unwanted sender’s name (space) b” and send SMS to 1777).

## 8. Complaint Resolving on Excess Charge for Buying Items in Online Games through Mobile Phone Service

The NBTC has received complaints from the mobile phone users who were charged for mobile phone service at the large amount of money from innocently buying items in online games, such as cookies run. It, therefore, in cooperation with mobile phone service providers, Google (Thailand), and Line (Thailand), has set up a guideline for preventing problems. The guideline includes installing a system that requires a password confirmation every time the user wants to purchase items through Google Play Store, and a purchase confirmation will be replied from Google in Thai language. In addition, Advanced Wireless Network Company limited shall set up a credit limit for the purchase or the billing system via mobile phone services up to 1,000 baht per a purchase which shall not exceed the credit limit set for each number.



## 9. Resolution for Internet Leakage and Channel for Terminating Internet Data Roaming Service (\*106#๒)

To resolve the internet leakage problem, the NBTC has set up the Information Center of the Office of NBTC on 5 March 2014 at the Entrance No.6 Area and International Departure Hall, the 4<sup>th</sup> Floor of Suvarnabhumi Airport in order to facilitate and serve the people, as well as to promote and raise awareness of the consumers to be able to use the internet properly, building knowledge and understanding of the use of smartphone devices including the process of terminating data services through internet and international data roaming by dialing \*106#๒ in all networks which is a free service. The users shall continue subscribing the data services when returning to Thailand by following the process: AIS press \*129\*2#๒), DTAC press \*123\*4#๒) and True Move H press \*113\*1#๒).

Moreover, the NBTC has publicized information on the process to terminate data services which includes raising awareness of the rights of consumers in telecommunications service by organizing campaigns and seminars in all regions throughout the country, publishing documents, video clips and advertising spots through various channels continuously such as organizing the opening ceremony for launching the publicity cars and the exhibition booth for educating consumers and launching campaigns on “Watch out! Using mobile phones on Khong riverside, you will be charged for international roaming” on 8 May 2014 at Wat Phra That Phanom, Nakhon Phanom province. The event included the exhibition booth for educating consumers on using roaming service and mobile phone service in the areas along the border with neighbouring countries. The purposes of the activities were to raise the awareness of consumers and general public on the properly use of mobile services in the border areas and be able to prevent the bill shock from roaming charges unintentionally.

*2,3 The Opening Ceremony for Launching the Publicity Cars and the Exhibition Booth for Educating Consumers on Usings Roaming Service and Mobile Phone Service in the Areas along the Border with Neighbouring Countries*





1 The Chairman of NBTC and the Vice-Chairman of NBTC officially opened the Information Center and Consumers' Awareness Raising on Using Internet Properly at Suvarnabhumi Airport

## 10. Solution for Virus Arising from Sending/Receiving Short Message Service (SMS)

As a consequence of the SMS virus problem which are widely spreaded with a link to download the application “.apk” for installing and finding the name list from users’ telephone in order to send out SMS continuously and all the time and have costed a lot of money on the users from sending those SMS. The NBTC, therefore, invited all mobile phone operators to discuss the way to resolve the problem and seek cooperation from the operators to find a solution on the problem and provide the information on the SMS virus to their users, especially the information that the SMS virus problem will be occurred on the android operating system and the problems that can be arised from receiving SMS or following the unusal link, in order to prevent damages which may be happened to the users.

For troubleshooting, Advanced Info Service Public Company Limited had created the “AIS Malware Remover” application and distributed to the consumers so that they can install the software to fix the problem and eliminate the virus arising from SMS. The application can be installed in all networks and also be downloaded through the Google Play Store at no charge. After the users have downloaded the “AIS Malware Remover” application and installed on their mobile phones, it will verify and alert when a disguised malware is found so that the users can delete (destroy) the malware immediately. At present, the SMS virus are under control.



2



3

## 11. Consumer Awareness Raising on Cyber Security

At present, the development of communication technology has rapidly advanced and inevitable become a part of the daily lives of people at all ages. The communication, whether in form of pictures, video, voice, or multimedia services, can be transferred through a telecommunications network within a second. As a consequence, it is obviously seen that the communication both in business or transactions could be done faster than it did in the past. Nevertheless, not only the technology has brought us the advantages but also the disadvantages if the users does not know much about the potential dangers which may arise from the use of mobile phone devices. The Office of NBTC, jointly with the Sub-committee on Network Security and Information in Telecommunications and Radiocommunications Services, has recognized the importance of such matters and published the Manual on Cyber Security for the People with its purposes to convince the general public to be aware of the fact of the trickery and using communication technology wisely to ensure of the safety, both for their lives and properties. It is expected that the Manual will be beneficial to the youth and the general public. Also, the NBTC had held the Campus Tour 2014 Activity on Cyber Security, Think Before Click, “Disaster at Fingertips”, on 21 January 2014 to help raise the awareness of the people for properly use of communication technology.

2 *Cyber Security  
Manual for People*

3 *NBTC Campus Tour  
2014*

## 12. Building Knowledge and Understanding on Telecommunications and the Disaster Relief and Prevention in the Disaster and Emergency Situations for the General Public

The communications system is one of the important factors in the disaster management either causing by the nature or human action. The communications is important in all process of emergency and disaster management, from the arrangement and preparation to the restoration and renovation. For example, the information technology and communication system has been used in the development of Early Warning Systems or the management in emergencies and disaster, in order to minimize the losses may be occurred to the general public whether in lives or properties, as well as to reduce fright and confusion from receiving information provided by different source of media.



1, 2, 3 Regional Seminars  
and Exhibition on Technology  
Telecommunications For  
Disaster Prevention and  
Relief in the Disaster and  
Emergency Situations



In the process of rescuing the disaster victims, the continuance of communication between the victims and officials and among the officials themselves is very important to enable the acknowledgement of the accurate and clear information in each situation which will support the rescue and disaster relief to be faster and more effective.

Having recognized the importance of the matter, the Office of NBTC, in cooperation with the Sub-committee on Telecommunications for the Prevention and Disaster Relief, has implemented a project for enhancing the general public with the right understanding on telecommunications system in the emergencies and disaster situation. The main objectives are to enhance knowledge and build understanding of the general public of the use of information technology and telecommunications for preventing and mitigating the disasters so that they can apply the knowledge to their daily lives which will help minimize the losses from emergencies and disasters. Moreover, this will be a way to gathering information and comments from the public in different areas for the NBTC's consideration in developing telecommunication service in the disaster prevention and relief. The NBTC, in the cooperation of National Disaster Warning Center and 5 mobile phone service providers, had held 3 activities across the country under the concept of "telecommunications is advanced, being aware of disaster will help encountering" which consisted of exhibition and the academic seminar, including the Office of the NBTC. National Disaster Warning Center. And a provider of mobile telephony in the event 3 times in 5 regions across the country.





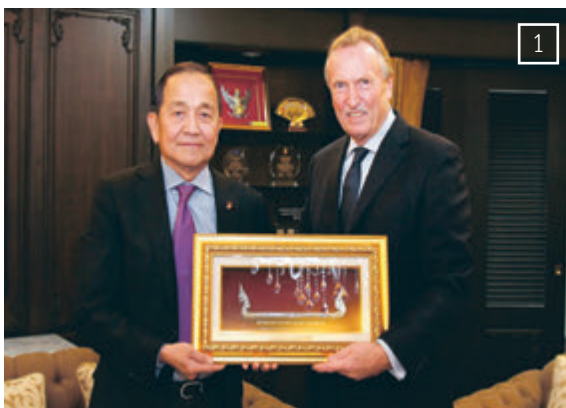
## Foreign Affairs in Broadcasting and Telecommunications Services

### 1. International Cooperation for the Broadcasting and Telecommunications Development and Regulation

In 2014, the NBTC had conducted international activities for supporting the operation of the NBTC as the broadcasting and telecommunications regulator to be most efficient whether in international, regional and bilateral level as follows:

- Exchange of views and comments on Cyber Security and Smart Cities between Air Chief Marshal Thares Punsri, the Chairman of the NBTC and Mr. Malcolm Johnson, Director of Telecommunication Standardization Bureau, ITU on the courtesy visit of Mr. Malcolm Johnson to Thailand, on 27 November 2014.
- “NBTC/ITU National Seminar on Thailand Digital Terrestrial TV Broadcasting Roll Out” under the “Project on Migration from Analogue to Digital TV Broadcasting in Thailand” on 4 December 2014, in order to transfer knowledge and build understanding of the process of TV digital switch over in Thailand. The participants to the seminar include the digital television business operators, the related industries, academic and the general public who interested in digital television service, as well as the executives and staff of the Office of NBTC. The seminar can be useful for the initial phase of the transition period of digital television switch over.
- The Chairman of NBTC attended the ITU Plenipotentiary Conference 2014 (PP-14) which is the highest level of meetings of the International Telecommunication Union or ITU. The meeting had considered crucial issues concerning role, and regulations and other issues of the ITU,

- 1 Exchange of views and comments on Cyber Security between Air Chief Marshal Thares Punsri, the Chairman of the NBTC and Mr. Malcolm Johnson, Director of Telecommunication Standardization Bureau, ITU
- 2 NBTC/ITU National Seminar on Thailand Digital Terrestrial TV Broadcasting in Bangkok, Thailand on 4 December 2014.







- which was held at Busan Exhibition & Convention Center (BEXCO), Pusan, Republic of Korea during 20 - 22 October 2014. The conference, which will be held every 4 - year, were attended by the delegation of ITU member countries who had been authorized full power by their government. At present, ITU has totally 193 Member States and more than 700 Sector Member and Associates.
- The 1<sup>st</sup> Joint Thailand-Poland Telecom Committee Meeting, held at the Office of NBTC, in cooperation with the Office of Electronic Communications, the Republic of Poland (UKE) on 20 August 2014, with its objectives to exchange knowledge and experiences in telecommunications regulation between the NBTC and the UKE experts. The meeting was attended by Miss Malgorzala Olszewska, Permanent Secretary of Ministry of Communications and Miss Magdalena Gaj, the Chairman of the Office of Electronic Communications, the Republic of Poland (UKE).
  - Training on “Leveraging ICTs for Smart Sustainable Cities” was held, in cooperation with ITU, at the Sukosol Hotel, Bangkok during 29 September - 2 October 2014, for the staff of the Office of NBTC, telecommunications operators, and representatives of telecommunications regulators from foreign countries. The objectives of the training are to exchange information and enhance knowledge and understanding of the trainees in policy-making for developing the cities to become sustainable smart cities.
  - Workshop on “Knowledge Sharing on Telecoms Price Regulation Among ASEAN Community” held at the Sukosol Hotel, Bangkok during 20 - 21 November 2014, was attended by the representatives from telecommunication regulators in ASEAN countries, telecommunications operators, executives and staff of the Office of NBTC.
  - The NBTC, in cooperation with the International Telecommunication Union (ITU), Ministry of Information and Communication Technology, and Economic and Social Commission for Asia and the Pacific (ESCAP) held an event of the “Release of ITU’s Flagship ICT Statistics Report: Measuring the Information Society 2014” at the Office of NBTC, in order to publish the ITU Annual Report concerning status of the use, accessibility, and capability to purchase global technology, including telecommunications statistics on 24 November 2014.



1 Office of NBTC, in cooperation with ITU, Ministry of ICT, and Economic and Social Commission for Asia and the Pacific (ESCAP) held an event of the “Release of ITU’s Flagship ICT Statistics Report: Measuring the Information Society 2014” on 24 November 2014



1 Chairman of NBTC and NBTC commissioners extended a warm welcome to Mr. Brahima Sanou, Director of Telecommunication Development Bureau, ITU

- The NBTC, in cooperation with the International Telecommunication Union (ITU), held a seminar on “Space Law and Governance in Satellite Communications in Thailand” and the “International Satellite Symposium 2014: First License and Renewals” to strengthen the capacity of the participants in international law, rules, and procedures relating to the satellite launching, operation, and services, as well as to discuss the issues and challenges of satellite industry on the basis of a rapid development of the market and an effective competition which are crucial to the planning for support the strengthening of telecommunications industry, during 17 - 19 September 2014 at the Pullman Bangkok King Power Bangkok.
- The Chairman of NBTC and NBTC commissioners extended a warm welcome to Mr. Li Yue, the Chief Executive Officer of China Mobile Company Limited, Mr. Li Zhengmao, Deputy Chief Executive Officer, and the delegation, on the occasion of courtesy visit to the NBTC and discussed on telecommunication investment in Thailand.
- The Office of NBTC has signed the Memorandum of Understanding with the Office of Electronic Communications the Republic of Poland (UKE) for exchanging knowledge and experiences in regulating telecommunications service and to strengthen the relationship between the Office of NBTC and UKE, on 10 September 2014.
- The Chairman of NBTC and NBTC commissioners extended a warm welcome to Mr. Brahima Sanou, Director of Telecommunication Development Bureau of the ITU, and Mr. Sameer Sharma, Acting Director for Asia and the Pacific Region, ITU, and the delegation, on the occasion of courtesy visit to the NBTC on 4 September 2014. During the visit, Mr. Brahima Sanou had invited the Chairman of the NBTC and NBTC commissioners to attend the ITU Plenipotentiary Conference 2014 (PP-14) which will be held in Pusan, Republic of Korea, and exchanged views on



direction and trends of communications service. However, for the development of communication service of Thailand, it can be said that the ITU has taken an important role through various forms of cooperation such as

- Doing Study Research Report such as Spectrum Auction in the Frequency Band of 2100 MHz, 1800 MHz and 900 MHz
  - Jointly Organizing Academic Seminar on Telecom Regulations in ASEAN: Best Practices and Success Stories, or Mobile Security
  - Jointly Operating Projects such as the NBTC-ITU Volunteers Moreover, the NBTC and ITU are going to set up a cooperation project on Human Capacity Building in Telecom/ICT Statistics and Indicators in the near future.
- Commissioner General Sukit Khamasunthorn had attended the Meeting with the Executives of the Information and Communication Technologies Authority (ICTA), during 27 - 28 October 2014 in Istanbul, Republic of Turkey and discussed with Dr. Kuddusi Yazıcı, Vice Chairman of ICTA and the Management team of the Department of Internal Control, and Information Technology and Communications. He also exchanged views, concept and experiences in basic telecommunication universal services with Mr. Ihsan Durdo, Former Advisor to the Minister of Communications and Telecommunications.
  - Commissioner Dr. Suthiphon Thaveechaiyagarn had attended the 20<sup>th</sup> ASEAN Telecommunication Regulatory Regulators' Council (ATRC) and related Meeting during 12 - 14 August 2014 at Champasak City, People Republic of Laos. In the meeting, Dr. Suthipon had reported of the political situation and direction of the spectrum allocation after the 1-year delay of the spectrum allocation in the frequency band of 1800 MHz, and the implementation of the revision of rules and regulations related to be more concise and efficient. The meeting took note with good understanding of Thailand's situation and agreed with the NBTC to revise the laws concerned in order to allow Thailand with more options in allocating the spectrum which is not limited to the auction method only. In addition, Dr. Suthipon had reported the success on consumer protection in telecommunications service and also proposed the meeting to consider the possibilities of having a multilateral agreement on charging a single rate for roaming service on international calls in ASEAN countries after Malaysia and Singapore, and Brunei Darussalam and Singapore have achieved the bilateral agreement on charging a single rate for roaming service which, as a result, bring in the consumers in two countries of the benefit from being charged a cheaper rate for roaming service. The meeting agreed with the concept and there is a high possibility to set up a working group to study the matter in details in the future.



- The Office of NBTC, in cooperation with the International Institute of Communications (IIC), had organized an academic seminar on “Allocation of Spectrum - Does one size fit all?” at Four Seasons, Bangkok on 9 July 2014 with the objective to building knowledge body in spectrum allocation which is one of the most important mission of the NBTC. The participants to the seminar were composed of telecommunications operators, telecommunication scholars, NGOs, Media, and inspection organizations.
- The Office of NBTC had held a seminar for raising awareness to entering the ASEAN Community 2015 on “Telecom Regulations in ASEAN: Best Practices and Success Stories” on 2 June 2014 at the Office of NBTC Auditorium, 2<sup>nd</sup> Floor, with the objectives to provide the operators, public agencies, and private organizations with the best practice and the success operations in ASEAN region so that they can be used as guideline for Thailand in regulating under the national telecommunications environment and laws, as well as continued developing rules and regulations for the regulator.
- Commissioner Supinya Klangnarong had paid a courtesy visit to Mr. Khieu Kanharith, Minister of Information of Cambodia, and exchanged views on regulating the broadcasting services including the situation of the suspension of digital TV switch over from 2015 to 2020, as happened in some other countries. The Minister of Information had informed of the transition plan to digital TV switch over of Cambodia which will be done in the 3 systems; 1) Fiber Optic Cable 2) Satellite TV, and 3) Terrestrial TV. The Cambodian government also have plans to support the Set-top Box, which is the European standard DVB T2 technology system, to all households in the future. It is expected that the cambodians will be able to watch digital TV across the border from 20 November 2014 in Phnom Penh, Cambodia.
- Commissioner Supinya Klangnarong had extended a warm welcome to Mr. Mark Kent, the Ambassador of the United Kingdom to Thailand on 16 October 2014 at the Office of NBTC. On this occasion, she had discussed the issues of news reporting about the death of British tourists which affected on the “right to privacy” of those affected by this case. Also, she had informed that over the past years, the NBTC had published the manual on ethics and self-regulation in the radio and television broadcasting services in order to be used as guideline for the regulation of media in the broadcasting service. However, due to the consideration that news reporting in this case is quite sensitive, the NBTC therefore had invited all relevant agencies such as operators, journalism editor, related public organizations to discuss on the ethics of crime news and the right to personal liberty.





- Commissioner Supinya Klangnarong was invited to be a Speaker on “Toward Robust and Effective Media Regulation: Opportunities and Challenges” in the Asia Media Summit 2014, among other speakers consisting of the scholars, researchers, representatives from government agencies and media regulator from 6 countries of Australia, China, Japan, Malaysia, England, and Thailand, during 6 - 8 May 2014, at Jeddah, Saudi Arabia. The summit had its objectives to exchange experiences and information on situation of regulating radio media, television media and new media in the convergence era according to the context of each country. There were more than 500 participants from 50 countries in Asia region and other regions throughout the world. Besides, Commissioner Supinya had given an interviewed to the Arab Television Station, Channel IQRAA, on “the roles and performance of media regulator in the broadcasting service in Thailand”.
- The Committee on Sport and Media, House of Representatives of the Republic of the Union of Myanmar had paid a visit to the NBTC for studying the regulation and management of television broadcasting service of Thailand during 18-19 December 2014 and Air Chief Marshal Thares Punsri, Chairman of the NBTC and NBTC commissioners consisted of Asst. Prof. Thawatchai Jittrapanun, Ms. Supinya Klangnarong, and Mr. Takorn Tantasith, Secretary-General of the NBTC including the Executives of the Office of NBTC had extended a warm welcome to the delegation. In the morning of 18 December 2014, the Myanmar delegation had a lecture on the spectrum allocation in the digital television business in Thailand and the competitive situation in the television business in the digital era by the Director of the Broadcasting Competition Promotion and Self-Regulation Bureau, Director of Broadcasting Policy and Research Bureau, and Director of Digital Broadcasting Bureau. In the afternoon, the Committee had met with the Chairman of the NBTC and visited the NBTC Call Center 1200 before going to study visit the Royal Thai Army television station, Channel 5. On 19 December 2014, the committee had a study visit to Thai PBS television station and Thairath TV television station.

1 The Members of House of Representatives of the Republic of Myanmar had paid a visit to study the regulation and management of television broadcasting service of Thailand





## Relationship with the Government and the Parliament

### 1. Meeting with the Parliament

In 2014, the NBTC had meetings with the Senate, the House of Representatives, National Legislative Assembly, and the National Reform Council as follows:

- Attending the National Legislative Assembly Meeting for clarifying the NBTC Annual Report 2013 and the NBTC Performance Monitoring and Evaluation Report 2013 to the Senate Meeting No. 20/2014, according to Section 72 and 76 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010), on 31 October 2014 at the Parliament Building.
- Attending the Meeting of Parliamentary Select Committee to Consider the Draft Act on Annual Expenditure Budget 2015 in order to provide information about the NBTC's mission, key performance in the fiscal year 2014, problems and obstacles in operation and possible solutions, and action plan for the fiscal year 2015, on Wednesday 3, September 2014 at the Meeting Room, 3<sup>rd</sup> floor, Parliament Building 3.
- Attending the Meeting of Parliamentary Select Committee to Consider the Draft Act on Safe and Creative Media Development Fund B.E. .... in order to clarifying information and providing views and comments to the meeting on Tuesday 18, November 2014 at Meeting Room No. 301, 3<sup>rd</sup> Floor, Parliament Building 2.
- Attending the Meeting of Sub-committee on Information and Communications Services in the Committee on Journalism, Science, Technology and Communications, the National Legislative Assembly in order to provide the factual information and recommendations related to infrastructure, strategies, and laws supporting the digital economy, on Tuesday 25, November 2014 at the Meeting Room No. 302, 3<sup>rd</sup> Floor, Parliament Building 3.
- Attending the Meeting for clarifying the factual information on the operation of the Performance Follow-up and Evaluation Committee on Thursday 1, May 2014 at the Meeting Room No. 331, 3<sup>rd</sup> floor, Parliament Building 2.
- Providing cooperation to the Committee for Consumer Protection Reform, the National Reform Council, for the protection of consumers of mobile services for not being exploited by the service providers by having the service providers set up the service rate of mobile phones based on the consumers' actual usage and being in a process of setting up the criteria for the mobile phone services operators to charge their users for mobile phones service based on their actual usage in second.



1 The Office of NBTC had established the Project of Felicitation by Pressing 9

2, 3 The Signing Ceremony of Felicitation on the occasion of the Auspicious Day of His Majesty the King on his 87<sup>th</sup> Birthday, 5 December 2014, at the 1<sup>st</sup> floor of the Auditorium, the Office of NBTC



## 2. Cooperation with the Government

- Supporting policy of protecting and praising the monarchy, and the core values of the National Council for Peace and Order as follows:

- Establishing the Project of Felicitation by Pressing 9 in order to pay the loyalty and the unity of the nation.

The NBTC and the Office of NBTC realize of the royal grace of His Majesty the King and on the auspicious occasion of the New Year 2015, therefore, they, in cooperation with the mobile phone service providers and the radio and television broadcasting operators, have set up the project of felicitation by pressing 9 in order to pay the loyalty to His Majesty the King during 27 December 2014 - 4 January 2015. The NBTC also invited all Thai people to pay their loyalty to the King and represented the unity of the nation by texting No.9 and sending via short message service (SMS) in all networks to 4567999, one number for one message, without any charge. The meaning of No. 9 is Long live the King. The total number of the people who joined the felicitation will be gathered by the Office of NBTC and submitted to His Majesty.

- Organizing activity to celebrate His Majesty the King on his birthday 5 December 2014 by having a signing ceremony of felicitation on the occasion of the auspicious day of His Majesty the King on his 87<sup>th</sup> Birthday, 5 December 2014, at the 1<sup>st</sup> floor of the Auditorium, the Office of NBTC. The activity included offering dried food to monks and the pledging ceremony for being the good government officials and power of the country.
- The NBTC, in cooperation with Mae Fah Luang University, held an exhibition in honour of the birthday celebration of His Majesty the King, 5 December 2014 on 3 December 2014 at Mae Fah Luang University, Chiang Rai province.



1 Week of the Radio Amateurs, in Honour of the Birthday Celebration of His Majesty the King, 5 December 2014

2 Process of prepaid mobile phone service SIM card registration via 2 Shots (Song Shae) application

- The NBTC organized the event, “Week of the Radio Amateurs”, in honour of the birthday celebration of His Majesty the King, 5 December 2014 during 8 - 13 December 2014. The activities included the prizes contest in innovation and invention of radio amateurs with certification.
- Supporting the government’s policy on Digital Economy as follows:
  - Preparing the policy proposal on prepaid mobile phone SIM card registration and the registration for identity verification for free WiFi access in order to help resolve the problems of insulting the royal family and security for the Cabinet’s approval and order the government agencies, private sector and the general public to implement the policy.

Since the NBTC has encouraged the prepaid mobile service users to register their SIM card whether the existing users who have not yet registered and the new users, there are now more than 1.3 million registered subscribers. For the registration for identity verification for free WiFi access, it is found in the past that the internet had been used for imperiling the security, therefore, the NBTC has accelerated the preparation process of operation in order to ensure of the security of the free WiFi access of the users. To verify the identity, the users are required to register by entering their mobile phone number before access to the internet.







The NBTC will propose its proposal to the Cabinet for their order to the government agencies, private sector and the general public to jointly implement the registration which will be expedited the process to be completed by six months.

- The system for underground installation of telecommunications cable to support the government's policy on digital economy

The problem of laying the telecommunications wire arised from the electricity poles rented by the operators are not able to bear more weights of wires to be attached and may cause any harm in the future. Also, there are some limitations for network expansion such as the operators are unable to lay the wire across the bridge over the river because the relevant authorities have not authorized the operation. As a result, the telecommunications network could not become connected as one network. If the telecommunications network could not be expanded throughout the country, it will have definitely affected on the implementation of digital economy policy.

The NBTC has therefore prepared for supporting the system for underground installation of telecommunications cable by organizing meetings with the approximately 40 telecommunications licensees type 2 and 3 (with own network), and the organizations concerned such as Metropolitan Electricity Authority (MEA) and the Provincial Electricity Authority (PEA), to discuss the issue and seek the resolution to the network expansion by using the "rights of way" method. It was found that the licensees have faced problems and barriers for not being authorized to attach their wires to the poles of the MEA, PEA, and EGAT. However, the NBTC is going to consider the organizations to join the cooperation in installing underground telecommunications cable which may be Bangkok Metropolitan Administration, CAT Telecom Public Company Limited, or TOT Public Company Limited, and will submit a proposal to the National Council for Peace and Order for their approval in setting up the criteria for conducting auction in the future.

1, 2, 3 National  
Communications  
Day (NET 2014)





- The NBTC, in cooperation with Ministry of Information and Communications Technology, private sector, and the broadcasting and telecommunications operators, held the National Communications Day during 2-4 August 2014 in order to communicate the happiness to all Thais. The event was composed of an exhibition on “Vision and Future of Thailand in Spectrum Allocation”, an exhibition in honor of His Majesty, and booths for selling mobile phones, digital TV, and Set-top Boxes in which the participants to the event will be given the discount.
- The Office of NBTC has signed the Memorandum of Cooperation with government agencies and state enterprises for the public benefit
  - Signing the Memorandum of Cooperation for being the cooperation network in developing the information center of public agencies in ministerial level to become the prototype organization “one ministry, one prototype organization” for the establishment of information center under the Official Information Act B.E. 2540 (1997) with the Office of the Permanent Secretary on 19 September 2014 at the Krung Thom Ballroom, 3<sup>rd</sup> floor, Royal River Hotel. (in the year 2014, the Office of NBTC is the only one of independent organizations who has been selected)
  - Signing the Memorandum of Cooperation regarding the promotion and protection of consumer rights and liberties in telecommunications services with the Rights and Liberties Protection Department, Ministry of Justice, on 29 January 2014 at the Auditorium, 2<sup>nd</sup> floor, the Office of NBTC. The main contents of the cooperation are to integrating the operation for supporting and promoting the consumer awareness on their rights in telecommunications service, the proper use of telecommunications services, and not being exploited by the operators. Both organizations will exchange knowledge and information on consumer protection in order to develop knowledge body which will be useful for the operation of protecting the rights and liberties of consumers, build a mechanism to protect the consumer rights and liberties by promoting, supporting and enhancing the citizen network capabilities for a better understanding on rights and liberties and consumer protection in telecommunications as well as to provide information to the public so that they understand of the rights and liberties and rights to use telecommunications service and be able to protect themselves.

1, 2 Signing MOU with  
the Rights and  
Liberties Protection  
Department



1, 2 Signing Ceremony  
of Memorandum of  
Cooperation between  
the Office of NBTC  
and Electricity  
Generating Authority  
of Thailand



- Signing the Memorandum of Cooperation with the Electricity Generating Authority of Thailand for human resource development and work system of both organizations, jointly organizing activities for corporate social responsibility (CSR), and setting up the ICT system for supporting the international securing electricity and telecommunications in ASEAN region for the benefits of the community, society and the country. The signing ceremony was taken place on 24 June 2014 at the Office of NBTC.
- Signing the Memorandum of Understanding for the cooperation in the trial of digital radio broadcasting transmission system with 8 organizations of public agencies and private sector namely;





1



2



3

1, 2, 3 Signing Ceremony of Memorandum of Understanding for the cooperation in the trial of digital radio broadcasting transmission system

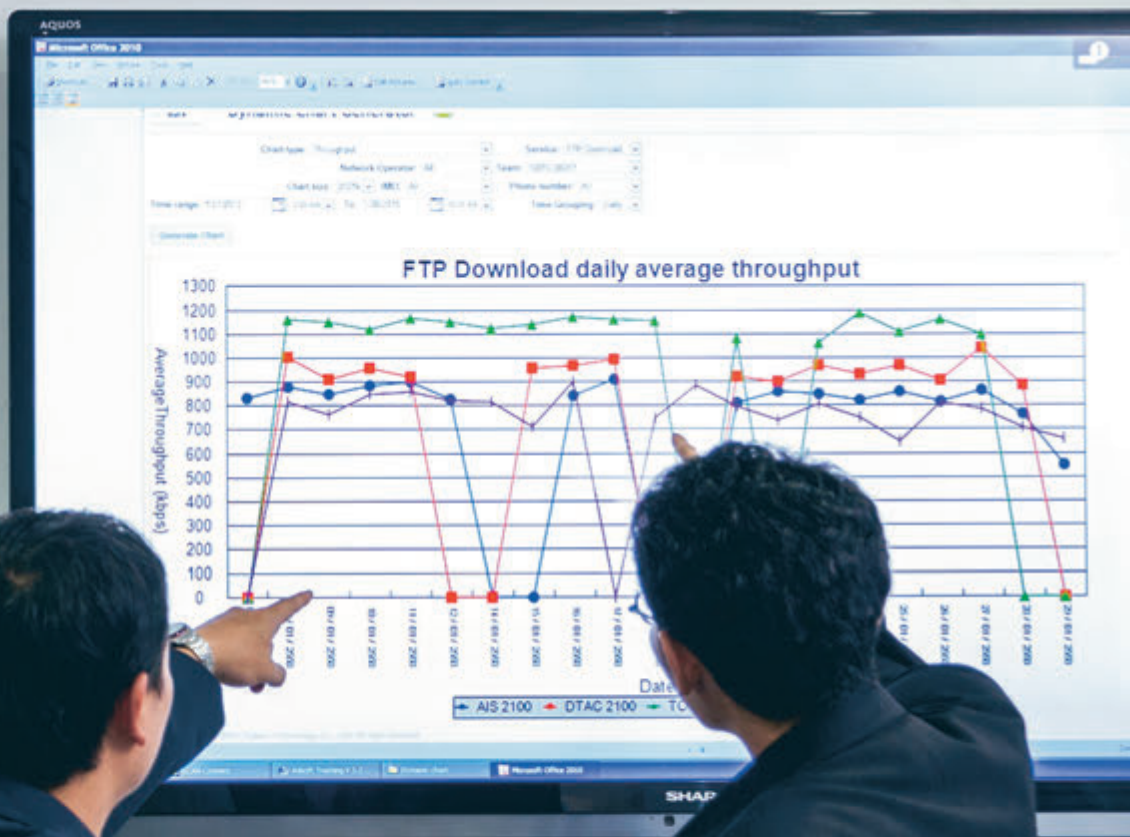
Royal Thai Armed Forces Headquarters, Royal Thai Navy Headquarters, Royal Thai Air Force, Royal Thai Police Headquarters, Public Relations Department, the Secretariat of the House of Representatives, and MCOT Public Company Limited, to promote understanding and set up the mutual agreement between the Office of NBTC and all parties who have expertise and readiness in technical standards which could help facilitate the radio broadcasting service of Thailand, support the research and development of digital radio broadcasting service, and enhance the understanding of the general public about the benefits of the transmission of digital radio broadcasting in the near future. The signing ceremony was taken place on 17 February 2014 at the Office of NBTC.



# 3

## *Major Performances of NBTC in 2014*







## Major Performances of NBTC

The NBTC has performed its mission under the action plan for the year 2014, which included programs and projects, with the main principles to managing spectrum and regulating the operations of the broadcasting and telecommunications services for free and fair competition and the public interest. It also focused on consumer protection for not being exploited which is accordance with the Spectrum Management Master Plan (2012 - 2016), the 1<sup>st</sup> Broadcasting Master Plan (2012 - 2016), and the 1<sup>st</sup> Telecommunications Master Plan (2012 - 2016). In 2014, the performance of the NBTC on spectrum management and the regulation of the broadcasting and telecommunications services including radiocommunications service are as follows:

### 1. Setting Up Policies on Spectrum

The Spectrum Management Master Plan (2012 - 2016) has prescribed practical guidelines for the achievement of spectrum management that the NBTC shall implement the Master Plan by setting the Action Plan of the Office of NBTC consisting the plan, projects, activities, responsible authorities, operating period, key performance indicators, and guidelines for follow-up and evaluation that are consistent with the Spectrum Management Master Plan (2012). In addition, the implementation of the Master Plan must be conducted in accordance with the government policies which have declared to the Parliament as well as included in the Action Plan of the Office of NBTC.

After the Spectrum Management Master Plan (2012) has come into force on 4 April 2014, the Office of NBTC has set up the Action Plan under the Spectrum Management Master Plan and implemented the plan accordingly. The NBTC also appointed a Sub-committee to Follow-up and Evaluation the Implementation of the Master Plan with the responsibility to follow-up and evaluate the NBTC operation in implementing the Master Plan, and the operation of the Office of NBTC under the Action Plan, including to study, analyze, scrutinize, and propose recommendations that will be useful for the revision of the Master Plan and the relevant Action Plan. At present, the NBTC is in the process of operating tasks as assigned. The performance in 2014 included setting up the key performance indicators of the Master Plan (2012) for 6 Strategies in order to support the consideration of the Sub-committee in following-up and evaluation of the implementation of the Master Plan in the strategic level.



## 2. Setting up the National Table of Frequency Allocations and Frequency Plan as follows:

### The National Table of Frequency Allocations

The Spectrum Management Master Plan (2012) has prescribed all information of table of frequency allocation that Thailand can utilize in the “National Table of Frequency Allocations” which is attached to the Master Plan, which is in accordance with the provision of Section 27 and Section 48 Paragraph One of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010). The National Table of Frequency Allocations has aimed for allocating the frequency bands for radio and television broadcasting, radiocommunications, telecommunications, and other services, in order to be used under the conditions required. For the allocation of international frequency bands (in Region 3), the NBTC has referred to the National Table of Frequency Allocations in Section 5 of the Radio Regulations Edition 2008 of the International Telecommunication Union (ITU). However, the ITU has revised the Radio Regulations to be in accordance with the report of World Radiocommunication Conference 2012 (WRC-12) has announced the Radio Regulations Edition 2012 to be effective since 1 January 2013 onwards

After issuing the National Table of Frequency Allocations on 4 April 2012, the NBTC had its Order No.98/2013 appointing the Sub-committee for Studying and Proposing Recommendations on the Amendment of the National Table of Frequency Allocations. The responsibilities of the Sub-committee are to study, analyze and propose recommendations for the amendment of the National Table of Frequency Allocations to be in line with the International Radio Regulations and the current and future use of frequency of Thailand, as well as to propose recommendations for the amendment of Frequency Allocation Plan and/or improvement of the use of spectrum as defined in the Strategies of the Spectrum Management Master Plan (2012). The Sub-committee’s performance in 2014 are as follows:

- Considering the National Table of Frequency Allocations which is different from the Radio Regulations 2012 for 26 frequency bands and proposing that the National Table of Frequency Allocations should be amended in 15 frequency bands.
- Considering 11 national footnotes shown in the Radio Regulations 2012, and proposing that 3 national footnotes should be amended.
- Updating the Appendix which is the addendum to the Spectrum Management Master Plan (2012) in terms of details of the spectrum assigned for being used in the radio and television broadcasting, telecommunications, and other services.
- Considering 23 national footnotes which is the addendum to the National Table of Frequency Allocations and proposing that all 23 national footnotes should be amended. At present, the amended footnotes are in the process of proposing to the TC and NBTC for their consideration.





### Radio Frequency Plan

- Setting up the Radio Frequency Plan for digital terrestrial television service and issuing the NBTC Notification on Radio Frequency Plan for Digital Terrestrial Television Service (No. 2) B.E.2557 (2014) which aims to make the amendment to the NBTC Notification on Radio Frequency Plan for Digital Terrestrial Television Services to be appropriate and efficient and in line with Article 9 of the Radio Frequency Plan for Digital Terrestrial Television Service NBTC FP 102 - 2012 which is attached to the NBTC Notification on Radio Frequency plan for Digital Terrestrial Television Service.
- Setting up the initial plan for mobile TV transmission by conducting studies and gathering information for the feasibility study report of the project on mobile TV transmission which is a cooperation project with the ITU under the “Project on Development of a Roadmap for Mobile TV Broadcasting Deployment and Regulation in Thailand”. The NBTC also held a consultation meeting with telecommunications operators, broadcasting operators for digital TV service provision, and broadcasting operators for digital TV network service provision in order to gather and receive comments and information to be used for setting up the initial plan for mobile TV transmission, details as shown in Table 10.

**Table 10:** Discussions with the Operators to set up the Initial Plan for Mobile TV Transmission

Items	Company/Organization	Operating schedule	Venue
1	True Corporation Public Company Limited (TRUE)	15 October 2014	True Tower
2	TOT Public Company Limited (TOT)	17 October 2014	TOT
3	CAT Telecom Public Company Limited (CAT)	22 October 2014	CAT
4	MCOT Public Company Limited (MCOT)	24 October 2014	MCOT
5	GMM Grammy Public Company Limited (GMM)	27 October 2014	GMM Building
6	SAMART Corporation Public Company Limited (SAMART)	29 October 2014	Software Park
7	Thai Public Broadcasting Service (TPBS)	30 October 2014	TPBS
8	Total Access Communication Public Company Limited (DTAC)	31 October 2014	DTAC



- Setting up the (draft) plan for terminating analog television transmission of Thai Public Broadcasting Service (TPBS) so that the NBTC can utilize the frequency used for the transmission of analog television in other services. Currently, it is in the process of consultation with the Thai Public Broadcasting Service for determining the appropriate period of broadcasting termination and requested the TPBS to confirm in writing to the Broadcasting Commission (BC) for further consideration and approval. The BC is still in the process of considering the issuance of license for the use of frequencies in the analog system for TPBS in which the validity of the license will be one year starting from the date of termination of original license. The plan for terminating analog television transmission of TPBS will also be taken into account of the consideration.
- Being in the process of setting up the (draft) NBTC Notification on Radio Frequency Plan for Digital Terrestrial Television Service (No. 3) B.E. .... which had already proposed to the NBTC Meeting for their approval to be held for public hearings in the future.
- Working in cooperation with the ITU for studying and determining criteria model of licensing to use the frequency in 1800 MHz and the frequency in the bands that the concession for mobile phone service provision will be ended. In addition, the Office of NBTC has made a proposal on “policy objectives and strategic options for auctioning concession spectrum in Thailand” under the process of setting up criteria on licensing procedure and evaluation of spectrum value for mobile phone service operation in the frequency band of 1800 MHz, the NBTC Notification on International Mobile Telecommunications in Frequency Bands 1710-1785/1805-1880 MHz, including the NBTC Notification on Criteria and Licensing Procedure to Use the Frequency in the Band of 1800 MHz which had already been held for public consultation on 28 May 2014 at Imperial Queen’s Park Hotel, and the result of the public consultation had been concluded and submitted to the Telecommunications Commission (TC) for their approval. More information in details are presented in Part 2: Mission and Major Projects in 2014, of the NBTC Annual Report.
- Issuing the NBTC Notification on Radio Frequency Plan for the State Security in Radiocommunications Service B.E.2557 (2014) on 17 March 2014, Two Action Plans for the Frequency in the bands of 1800 MHz and 900 MHz, and being in the process of setting up the 5 sub-Action Plans for Frequency Allocation and Refarming for the Public Agencies for State Security.



- Setting up 5 Radio Frequency Plans consisted of Radio Frequency Plan in E-band, Radio Frequency Plan in Trunked 800, Radio Frequency Plan in Trunked 400, Radio Frequency Plan in Land Mobile UHF, and (draft) Radio Frequency Plan in Land mobile VHF. In addition, the NBTC has also set up the Criteria on the Use of Frequency in E-band.
- Setting up the conceptual framework for the consideration of establishing the criteria for frequencies refarming.
- Setting up the conceptual framework for the consideration of establishing the criteria for the use of frequency for disaster prevention and relief and in emergencies and disasters situation.
- Making the inspection report on the spectrum having been assigned or the spectrum utilization, including the necessity of holding the frequency for telecommunications service No.2 and 3.
- Being in the process of studying guidelines for utilizing the frequencies in bands of 2.3 GHz and 2.6 GHz for telecommunications service.

### 3. Frequency Coordination for Preventing and Resolving Frequency Interference in the Services Operation, along Common Border Areas with Neighboring Countries







- The NBTC has the frequency coordination with neighboring countries along the common border in the form of a Joint Technical Committee (JTC), to prevent and resolve the frequency interference in the service operation which may occur in the areas along the common border. Currently, Thailand has coordinated with Malaysia, Laos and Cambodia, and will be coordinated with Myanmar in the future. For the broadcasting, telecommunications, and radiocommunications services, the NBTC has conducted activities as shown in Table 11.

1 and 2 Frequency coordination along the common border with neighboring countries





**Table 11:** Details of the Radio Frequency Coordination along Thailand's Border with Neighboring Countries

	
<p>Field trip for testing signals for resolving frequencies interference between WCDMA 850 MHz and GSM 900 MHz in the Thailand - Laos common border areas for 3 times (13-17 January 2014, 10-14 March 2014, and 2-4 April 2014)</p>	
<p>The Task Force Meeting on Mobile Phone Services Thailand - Laos, during 26-27 June 2014, Vientiane, People Republic of Laos</p>	
<p>The 5<sup>th</sup> Joint Technical Committee (JTC) Thailand-Laos Meeting, during 1-3 October 2014, Nakhon Phanom, Thailand. The meeting had discussed the issues of resolution for frequencies interference between WCDMA 850 MHz and GSM 900 MHz, the signal channel division for the provision of 2G and 3G and 2.6 GHz, and the primary principle for the notification of frequency registration</p>	
<p>The Task Force Meeting for the Notification of Frequency Registration Thailand - Laos, on 27 June 2014 in Vientiane, People Republic of Laos</p>	
	
<p>The 4<sup>th</sup> Joint Technical Committee (JTC) Thailand - Cambodia, 1-3 October 2014 at Siem Reap, Cambodia. The meeting had discussed the issues of primary principle of the notification of frequency registration, the resolution for frequencies interference between CDMA 800 MHz, WCDMA 850 MHz, HSPA 850 MHz and E-GSM 900 MHz, the signal channel division for the provision of 2G and 3G services, and frequencies coordination range in the bands of 900 MHz 1800 MHz and 2.1 GHz</p>	
	
<p>The 3<sup>rd</sup> JTC Database Review Meeting between the Office of NBTC and MCMC during 28-29 April 2014 and the 4<sup>th</sup> Meeting during 18-19 November 2014</p>	
<p>The 25<sup>th</sup> Joint Technical Committee (JTC) Thailand - Malaysia during 30 April - 2 May 2014 in Kuching, Malaysia. The meeting had discussed on setting up areas for coordination in the frequency bands of 900 MHz and 1800 MHz, the communication in fixed-service in the bands of 71 - 76 GHz and 81 - 86 GHz, and current use of frequencies in the bands of 450 - 470 MHz in Thailand.</p>	
<p>Field trip for testing signals for resolving frequencies interference between WCDMA 850 MHz and GSM 900 MHz in the Thailand - Malaysia common border area for 2 times (17-21 March 2014 and 8-11 April 2014)</p>	





### Frequency Coordination for Satellite Service

Frequency coordination for satellite service is the frequency coordination of two satellites or more which have some service areas overlapped and may cause interference with each other. There are 2 types of coordination; the first type is to coordinate by correspondence to notify against the satellite network that may interfere the satellite network of Thailand; another type is to organize the frequency coordination for satellite service meetings whether at the operational level, which is done by the satellite service providers directly, or at the governmental level, in which the Office of NBTC has been requested by the Ministry of Information and Communication Technology to join the operation.

#### Governmental Level Meeting

Attending the frequency coordination for satellite service meeting with relevant organizations of Republic of Turkey during 21-22 May 2014 which is to coordinate between satellite network of Thailand at 50.5 degrees East and the satellite network of Turkey at 50 degrees East due to a very close satellite orbits. The meeting has not yet reached an agreement of the frequency coordination.

#### Correspondence coordination

Having submitted 99 notifications against satellite networks which may interfere the satellite networks of Thailand periodically which is the operation under the ITU Radio Regulations.





#### 4. International Cooperation in the International Frequency Management in the Broadcasting, Telecommunications and Radiocommunications Services

The NBTC has supported the international cooperation in the international frequency management in the broadcasting, telecommunications and radiocommunications services in international level such as ITU, regional level such as Asia Pacific Telecommunity, Asia Pacific Broadcasting Union, ASEAN, and bilateral level such as the frequency coordination with neighboring countries, by sending the representatives to attend the meetings related to spectrum management constantly in order to obtain the useful essence concerning international spectrum management in the broadcasting, telecommunications and radiocommunications for applying in the operation. Those meetings are

- The ITU-D Workshop on Regional Seminar on IMT towards 2020 and beyond Technology and Spectrum, Ho Chi Minh City, Vietnam, 11 February 2014, and the Working Party 5D (IMT System) Meeting during 12-19 February 2014, Ho Chi Minh City, Vietnam
- The ITU-R Working Party 4C (Efficient Orbit/Spectrum Utilization for MSS and RDSS), 12-19 February 2014, Geneva, Switzerland
- The Joint Task Group 4-5-6-7 (WRC-15 Agenda items 1.1 and 1.2) Meeting, 20-28 February 2014, Geneva, Switzerland
- The ITU-R Working Party 7A (Time Signals and Frequency Standard Emissions), Working Party 7B (Space Radiocommunication Applications) and Working Party 7C (Remote Sensing Systems), 6-13 May 2014, Geneva, Switzerland
- The ITU-R Working Party 1A (Spectrum Engineering Techniques) and Working Party 1B (Spectrum Management Methodologies and Economic Strategies), 1-14 June 2014, Geneva, Switzerland
- The APT Preparatory Group Meeting for the 3<sup>rd</sup> WRC-15 (APG15 - 3), 9-13 June 2014, Brisbane, Queensland, Australia
- The 17<sup>th</sup> APT Wireless Group Meeting (AWG-17), 23-26 September 2014, Macau, the People's Republic of China.
- The ITU-R Working Party 7A (Time Signals and Frequency Standard Emissions), Working Party 7B (Space Radiocommunication Applications) and Working Party 7C (Remote Sensing Systems), 30 September - 8 October 2014, Geneva, Switzerland



- The ITU-R Working Party 5D (IMT system), 15-22 October 2014, Geneva, Switzerland
- The ITU-R Working Party 5A [Land Mobile service above 30 MHz (excluding IMT); wireless access in the fixed services; amateur and amateur-satellite services], Working Party 5B [Maritime mobile service including Global Maritime Distress and Safety System (GMDSS); aeronautical mobile service and radiodetermination service], and Study Group 5 (Terrestrial service), 27 October - 11 November 2014, Geneva, Switzerland
- World Radiocommunication Seminar 2014 (WRS-14), 8-12 December 2014, Geneva, Switzerland

## 5. Operations under the Strategic of the Spectrum Management Master Plan (2012)

In 2014, the Office of NBTC had operated its activities under the strategies of the Spectrum Management Master Plan (2012) as follows:

### Strategy 1: Operation concerning International Spectrum

#### 1) Supporting the international cooperation on spectrum management by taking into account of the national benefits as follows:

- Preparations for international spectrum management especially the most important international conferences on spectrum management - the World Radio Conference 2015 (WRC-15), by setting up a preparatory working group of Thailand and preparing Thailand's contribution to be proposed to the relevant WRC-15 preparatory meetings
- Appointing Thai delegation to attend meetings relevant to spectrum management under the framework of international organizations, regional organizations and bilateral organization, by taking into account of the national benefits
- Having cooperation with international regulators under the international cooperation frameworks which included the technical information exchanges, consultation meetings, and being co-speakers in seminars related to spectrum management
- Preparing 8 contributions of Thailand to the WRC-15 and relevant meetings



2) Coordination for protecting and resolving problems on the operation related to international spectrum, with international organizations, the coordination committee for international spectrum usage, regulators, and operators as follows:

- Having coordinated with other countries to protect and resolve problems in relations to international spectrum management in accordance with Section 27 (14) and (15) of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010), by using three types of approach: (1) the frequency coordination through correspondence to resolve the frequency interference problems; (2) the meetings on frequency coordination through the Joint Technical Committee (JTC) and/or the JTC task force under the JTC (3) The notifications of the spectrum and telecommunication station registrations to the ITU or the JTC Meeting. More information on this topic will be presented in the international cooperation and frequency coordination for preventing and resolving the frequency interference in service provision which may occur in the areas along the common border.

3) Coordination with Regulators and Satellite Operators with Service Footprints over Thailand

- Having coordinated with regulators and satellite operators with service footprints over Thailand under Section 27 (14) (15) and (22) of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service B.E.2553 (2010) by using two types of approach: (1) the satellite frequency coordination through correspondence, including the notification against satellite network which may interfere Thailand's satellite network according to the process prescribed in the ITU Radio Regulations, (2) Meetings on satellite frequencies coordination. More information on this topic will be presented in the international cooperation and frequency coordination for preventing and resolving the frequency interference in service provision which may occur in the areas along the common border.





## Strategy 2: Spectrum Refarming

- 1) In cases of government agencies, state enterprises or government units who re-assigned the spectrum to other service providers through licensing, concessions and legal contracts which have already been approved by the NBTC, are required to return the spectrum to the NBTC upon the expiration of those licensing, concessions and legal contracts.
  - Preparing the results of preliminary consideration of legitimacy status for the use of frequency and necessity for holding the frequency for broadcasting service of all organizations and proposing to the Broadcasting Commission (BC) in the BC Meeting No.52/2014 on 1 December 2014 by virtue of Section 82, 83 and 84 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service B.E.2553 (2010), and setting the appropriate timelines for the spectrum refarming.
  - Preparing for the licensing to use the frequency in the band of 1800 MHz, setting up the NBTC Notification on Criteria and licensing procedure for the use of frequency for telecommunications service in the frequency band of 1800 MHz and the NBTC Notification on Radio Frequency Plan for Telecommunications Service in the Frequency Band of 1800 MHz, including Information Memorandum. All NBTC Notifications had already been held for public consultation.
  - In cooperation with the ITU for studying and setting up the licensing criteria to use the frequency in the band of 1800 MHz and the spectrum in the bands where concession for cellular telephone services provision will be expired.
  - Operating the preparatory project for licensing to use frequencies in the bands of 410-450 MHz for telecommunication services for taxi, and having prepared the (draft) report on spectrum valuation and a minimum value of spectrum licenses in 410-450 MHz (completion).
- 2) In cases of the licensees to use the spectrum legally for a certain period are required to return the spectrum upon the expiration of the license.
  - A database of spectrum refarming with the validity period of the frequency usage has already been established.
  - For legally renewal of spectrum allocation, the licensee shall return the spectrum upon the expiration of the licensing period, according to the NTC Notification on Criteria for Spectrum Assignment.
- 3) In the case of the licensees to use the spectrum legally without licensing period validity, the NBTC will set the timelines for the expiration of the spectrum usage by taking into account of the public interests and necessity of the operation and the spectrum usage.



- In the process of verifying the details of the spectrum utilization and the necessity to hold the spectrum by the virtue of Section 82, 83, and 84 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Service B.E.2553 (2010), and to set the appropriate timeline for the spectrum refarming.
- In the process of preparing the database for setting the timeline for the spectrum refarming.

### Strategy 3: Utilization of Spectrum for National Security as Necessary

- 1) Establishing mechanisms for spectrum management in cooperation with national security agencies so that the spectrum will be used for national security as necessary in radio and television broadcasting services
  - Setting up the guideline on spectrum management for national security agencies and public security in radio and television broadcasting services and having formulated the NBTC Notification on criteria and licensing procedure for radio or television broadcasting services (No.2) B.E.2557 (2014) which will be presented in details in Part 3 (3.2) “Major Performance of the BC”.
  - Setting up the radio frequencies proportion or program slots allocations for national security in the radio and television broadcasting services.
- 2) Establishing mechanisms for spectrum management in cooperation with national security agencies so that the spectrum will be used for national security as necessary in telecommunications and radiocommunications services
  - The appointment of the sub-committee for the coordination on spectrum management for national security in telecommunications and radiocommunications services, and the working group for the coordination on spectrum management for national security in telecommunications and radiocommunications services.
  - Formulation of Radio Frequency Plan/Action Plan for the national security agencies in telecommunications and radiocommunications services, as presented in Part 3 (3.1) “Major Performance of the NBTC”.
  - Improvement of Information on spectrum usage of the national security agencies to be updated and in accordance with the office of NBTC database.



## Strategy 4: The Use of spectrum for disaster prevention and relief, and public benefits

- 1) Spectrum allocation for disaster prevention and relief and in case of emergencies and disasters
  - Allocating frequencies for disaster prevention and relief including in case of emergencies and disasters (licensing to install communication network and expand communication network) constantly with the success rate of no less than 90 percent.
- 2) Setting up criteria on the use of spectrum for supporting disaster prevention and relief and in case of emergencies and disasters as necessary including for the public benefits
  - Appointing the Sub-committee on telecommunications for disaster prevention and relief.
  - Setting up practical criteria for agencies relevant to the spectrum usage for disasters prevention and relief including for the public benefits.
- 3) Promoting the efficient use of spectrum for disasters prevention and relief
  - Organizing 2 training courses for amateur radio volunteers in order to perform their duties in case of disasters.
  - Having 8 preparedness practices in the case of emergencies and disasters.

## Strategy 5: Transition to digital television switch over

- 1) Setting up transition plan for the digital television switch over which shall specify the details of spectrum refarming guideline, spectrum allocation, the commence of digital broadcasting transmission within four years starting from the date that the Spectrum Management Master Plan has become effective, and the appropriate timeline for the termination of the analog broadcasting transmission.
  - Having mechanisms to support the transition to the digital broadcasting switch over through setting up a Sub-committee and relevant Working Groups.



- Issuing the NBTC Notification for the preparation of the transition, setting up measure for supporting the citizen for the transition to the digital terrestrial television (coupon or discount for purchasing television set) including the implementation of the project for calibrating the signal, monitoring quality of services, and adjusting the Radio Frequency Plan for the digital terrestrial television broadcasting service (started in 2013 and will be ended in 2015). More details will be presented in Part 3 (3.2) “Major Performance of the BC”.

### Strategy 6: Supporting the public to use the spectrum for radio and television broadcasting services

- 1) To issue the NBTC Notification concerning the licensing criteria to support the public to use the spectrum for radio and television broadcasting services within four years starting from the date that the Spectrum Management Master Plan has become effective
  - Issuing the NBTC Notification regarding licensing criteria for trial operation of radio broadcasting service.
  - In the process of preparing for the spectrum usage for digital terrestrial television broadcasting system for community service.
- 2) Allocating the spectrum to the public for temporary usage in television broadcasting service in a period of time that the digital television broadcasting service has not been provided, particularly in areas that the spectrum is available enough for allocation.
  - Issuance of the NBTC Notification on the transition plan to the digital television switch over, on 21 December 2012. More details will be presented in Part 3 (3.2) “Major Performance of the BC”.





## Major Performance of the BC

In 2013, the BC has performed important activities according to the strategies of the 1<sup>st</sup> Broadcasting Master Plan (2012 - 2016) as follows:

### 1. Licensing to use the spectrum and broadcasting services

#### 1) Issuance of the NBTC Notifications relevant to the licensing to use the spectrum and broadcasting services

- Issuing the NBTC Notification on Type and Category of Broadcasting Services (No.2) B.E.2557 (2014) which is the revision to the NBTC Notification on Type and Characteristics of Broadcasting Services in order to determine the type and category of the provision of service for being applied in accordance with the environment of broadcasting services which will help set a clear framework of the broadcasting service to be used as guidelines for the effective broadcasting operation and regulation.
- Issuing the NBTC Notification on Criteria and Licensing Procedure for the Broadcasting Service Provision (No.2) B.E.2557 (2014) which is the amendment to the NBTC Notification on Criteria and Licensing Procedure for the Broadcasting Service Provision B.E.2555 (2012) with the purpose of licensing and regulating the use of spectrum for broadcasting services or television broadcasting for public service (type 2) for state security or public safety.
- Issuing the Office of NBTC Notification on Practical Guideline for the radio broadcasting stations that have been granted the licenses for trial operation of broadcasting service, under the Notification of National Council for Peace and Order No.79/2014 regarding the conditions of the broadcasting of radio broadcasting stations that have been granted licenses to broadcast for trial operation. The objective is to ensure the clarity of the compliance to the Notification of the National Council for Peace and Order, as well as the dissemination of information to the public have been done in a correctness manner and without distortion which may affect on maintaining order.

#### 2) Granting Licenses for Broadcasting Services

- The BC had passed a resolution to grant the licenses to the applicants who applied for the use of spectrum and television broadcasting service in order to provide the service on digital terrestrial television (type of national commercial service) for totally 20 licenses. The licenses have become into effective during 25 April 2014 - 24 April 2029.
- In order to implement the licensing system, the BC had considered and granted licenses for broadcasting services consisting of the provision of radio or television broadcasting services, and network and facilities services. On 31 December 2014, the totally number of licenses granted were 1,153 licenses.



- To prepare the readiness of the broadcasting operators for implementing the licensing system, the BC had considered and granted licenses for trial operation of radio broadcasting services. On 31 December 2014, the totally number of licenses granted were 5,657 licenses. However, the broadcasting stations who have been granted licenses will be able to broadcast the service once they have complied to the Notification of National Council for Peace and Order No.79/2014 regarding the conditions of the broadcasting of radio broadcasting stations that have been granted licenses to broadcast for trial operation, and the Office of NBTC Notification on Practical Guideline for the radio broadcasting stations that have been granted the licenses for trial operation of broadcasting service under the Notification of National Council for Peace and Order No.79/2014 and on 31 December 2014, the totally number of the broadcasting stations who were allowed to broadcast were 3,443 stations.
- In addition, in 2014, the BC had issued 406 licenses for the production, import, sale, or having in possession for sale, or installation of transceivers or equipment under the NBTC Notification on Criteria and Licensing Procedure for the Import, Sale or Having in Possession for Sale, or Installation of Transceivers or Equipment that can receive or synthesize frequencies for receiving broadcasting signals in subscription service B.E.2555 (2012), and issued 6,186 licenses to produce, import, export, use, install radiocommunications equipment under the Radiocommunications Act B.E.2498 (1955).

### 3) Fees and Service Rates

In 2014, the BC had received license fees according to the NBTC Notification on License Fees for the Broadcasting or Television Services B.E.2555 (2012) including setting up the management system for fees and service rates formulation which aims to facilitate and enable the licensees to expedite the fees payment correctly and speedily, as well as to help analyzing the service rates that can be processed the financial model for the correct, precise, and reliable result of calculation. Furthermore, the practical guideline has been set up to be used in a review of the payment of annual license fees for the radio and television broadcasting services and guideline for determining revenue from the operations which has been used as a calculation base for annual license fees.

### 4) Consideration of the Necessity to Use and Hold the Spectrum

Considering the necessity to use and hold the spectrum of government agencies, state enterprises, other state agencies, or persons who have been allocated spectrum, and proposing the comments and recommendations to the BC and NBTC for consideration respectively.



## 5) Developing the Geographic information System (GIS) for Broadcasting Services

The GIS development aims to import geographic data demonstrating on a map in the documents attached to the licensing application form, in order to make it easy and convenient to search, increase the analysis efficiency for being used in consideration of issuing licenses. This also includes the supply of information to be used in data analyzing of the signals broadcasting in the services with spectrum-used, and supporting the transition of digital television switch over as well.

## 2. The Regulation of Broadcasting and Television Services

### 1) Regulating on TV programs and contents

- Having issued the NBTC Notification on Criteria for TV programming for Broadcasting or Television Services (No.2) B.E.2557 (2014) in order to improve the NBTC Notification on Criteria for TV programming for Broadcasting or Television Services B.E.2556 (2013) to be in line with the type of service of the licensees for broadcasting or subscription television services (non-spectrum used). Also, the (draft) NBTC Notification on Criteria for TV programming for Broadcasting or Television Services (No.3) B.E. .... has been formulated for the appropriateness of the duration for the storage of TV programs recording tapes of the licensees under Section 38 of the Public Broadcasting Services Act B.E.2551 (2008), and for the efficient regulation of the broadcasting and television services.
- Providing cooperation to the operation of the National Council for Peace and Order on the Dissemination of Information to the Public, and the Notification of National Council for Peace and Order No.103 regarding the Additional Amendment to the Notification of National Council for Peace and Order No.97/2014 by monitoring contents broadcasting in radio and TV program channels which may contain political content and inviting operators to clarify the facts concerning the broadcast of content that may be contrary to Section 37 of the Broadcasting Business Act B.E.2551 (2008).

### 2) Competition Promotion and Regulation

Having issued the NBTC Notification on Criteria for the Designation of the Operators with Significant Market Power in the Relevant Market of Broadcasting and Television Services and Special Measure for Preventing the Acts of Monopolies or Unfair Competition B.E.2557 (2014), the NBTC Notification on Criteria for the Consideration and Determination of Special



Measures to Remedy the Consequence of the Monopolistic Behaviour or Causing the Unfair Competition in the Broadcasting and Television Services B.E.2557 (2014). Moreover, the NBTC Notification on Characteristics and Regulatory Measures for Merger, Acquisition, and Service Dominance of Broadcasting and Television Services has been drafted in order to prevent the actions that are deemed to be monopolistic, reducing or limiting the competition in the broadcasting and television services. The contents of the Notification have include measure for regulating the mergers and acquisition, the service dominance by persons who have common interests, as well as guidelines to measure the impact of the mergers<sup>2</sup>

### 3) Self-Regulation

Having exchanged knowledge and experiences and establishing networks for promoting the self-regulation which included organizing meetings for setting the practical guideline and mechanism to support the self-regulation of media. The BC has also supported the operators to set up the system to support the broadcasting services efficiently in case of emergencies or disasters.

### 4) Regulation on Service Rates in Broadcasting Services to be fair for the Public Benefit

Having formulated the (draft) NBTC Notification on Regulatory Guidelines on Service Rates in the Broadcasting or Television Services by taking into account the principle of good governance, minimal market intervention, or as necessary. The regulatory guidelines will be complied with the principles and international standards, with the appropriateness, transparency, and fairness for both users and service providers, on the consideration of the public interest, the burden of consumers, and the efficient resources management.

### 5) Technical Regulation

The BC has regulated the technical aspects of the broadcasting services whether for the prevention or problem resolution such as for resolving technical problems of frequencies interference, the laboratories were support to have registered to be laboratories for testing the technical standards of radio broadcasting transmitters for trial operation. Also, the simulation of frequencies interference of radio broadcasting stations were conducted, as well as the coordination on international spectrum management (Cambodia, Laos, Malaysia), etc.

<sup>2</sup> Published in the Royal Gazette, No.132, Special 17D, on 20 January 2015





## 6) Other Areas of Regulation

In 2014, the BC has also performed other regulations, mainly on legal operation such as the complaints filing to the Commissioner-General of Royal Thai Police or Superintendent of Police Station in each area of responsibility, law enforcement on the broadcasting laws, in cooperation with the Central Investigation Bureau, regulation of radio broadcasting stations which have been done by supervision, monitoring, and mediation of spectrum use for broadcasting service, the monitoring for supervision of program channels, the proceedings to the offenders in case of the Set-top Box, settling the case according to Radiocommunications Act B.E.2498 (1955), administrative proceeding, etc. In addition, the operations also included the promotion on regulation of broadcasting and television services in the 3 provinces of the southern border area as well.

## 3. Consumer protection in the broadcasting services

### 1) Issuance of Notifications and Guidelines for Consumer Protection in Broadcasting and Television Services

- In 2014, the BC has formulated the (draft) notification of the Office of NBTC on guideline for consideration of the action which may exploit the consumers under Item 5 (10) of the NBTC Notification on the Action which may Exploit the Consumers in Broadcasting and Television Services B.E.2555 (2012) in the case of broadcasting or advertising by means of increasing volume to attract the attention of consumers, which affects on the consumers in a way of being forced to receive information, programs, or advertisement, or creating noise pollution without sufficient reasons.
- Setting up practical guidelines concerning the action which may exploit the consumers in broadcasting services consisting of a guideline for the regulation of non-spectrum used television service (satellite and cable television) in the case of illegal advertisement of food, drugs, and health products; a guideline for resolving problems on illegal advertisement of food, drugs, and health products via radio and television broadcasting in areas of responsibility of Provincial Health Office, the Regional Office of NBTC, and Citizen Network; a (draft) practical guideline on the broadcasting with the excess duration of advertisement of services or products as prescribed by law, or more often which has interrupted the continuation of program viewing of consumers.



2) **Enhancing knowledge and understanding of the public on Consumer Protection** through organizing seminars, forums, meetings, such as the seminar for the operators of broadcasting and television service on being compliance with laws concerning the advertisement of food and drugs, the consultation meeting on guidelines for the prevention of law violation that have an impact on consumers, etc.

3) **Consumer Network Establishment**

Promoting the conglomeration and organizing activities for consumer protection by watching and monitoring the advertisement of health products, promoting consumer network establishment in broadcasting and television services, supporting of having consumer network leaders to organize activities for building knowledge and understanding of the public as consumers of media in 9 provinces 5 regions, including the establishment of channels for communication between the Office of NBTC and the consumer network on radio and television media and disseminate the knowledge body to the general public.

4) **Complaints Management and Recommendations in Broadcasting and Television Services** by resolving problems related to the actions which may exploit the consumers such as the advertisement of food, drugs and health products, including the complaints resolving on program and content.

#### 4. Promotion of the rights and liberty to communicate

1) **Formulation and Revision of Criteria concerning the Rights and Liberty to Communicate**

- Formulating the (draft) NBTC Notification on Criteria for Setting the Appropriate Levels of Television Programs B.E. .... in order to provide the public with fair and good quality of services, and promote the public to have universal access to television services.
- Formulating the (draft) NBTC Notification on Promotion and Protection of Rights of the Disabled to Access or Receive and Utilize the Television Programs B.E. .... so that the television operators provide the services for the disabled and the general public equally by prescribing that the licensees shall provide the sign language interpreter, caption, audio description, and other services as set by the BC. Such programs are such as news, or informativeness to the public.



- 2) **Promoting Access and Utilization of Radio and Television Media of the Disabled, the Elderly, and the Underprivileged** through setting up the project for encouraging the broadcasting and television services operators to provide the service for accessing to information of the disabled by signing memorandum on “Encouraging the Broadcasting and Television Services Operators to Provide the Service for Accessing to Information of the Disabled” which consisted of sign language, caption, audio description, activities for raising awareness of the rights to communicate of the disabled (intellect, autism, mental disorder).
- 3) **Strengthening Media Literacy for Citizen** through organizing activities on building mechanisms for strengthening radio and television media literacy, producing creative media to enhance the consumers’ capabilities in media literacy, establishing collaboration with academic institutes for developing courses and promoting media literacy of citizen, and setting up the Strategic Plan on Strengthening Media Literacy for Democratic Citizen: Thai Model.

## 5. Development of Broadcasting Quality of Operation

- 1) **Promoting the conglomeration and the operation of professional organizations for setting up the ethical standard for the profession** by setting up the (draft) NBTC Notification on Measure for promoting the conglomeration of the licensees, program producers, and mass media professional practitioners concerning broadcasting and television services in form of various organizations to be responsible for setting up the ethical standard for the profession and self-regulation of the vocation or occupation under the ethical standard.
- 2) **Promoting and developing the quality of professional operation in broadcasting and television services** through the provision of knowledge for enhancing skills and benefits for persons involving in the broadcasting and television services.
- 3) **Promoting and supporting the development of human resources in broadcasting and television services** through the operation under the NBTC Notification on Training and Testing for the Announcement Certificate in Broadcasting and Television Services B.E.2556 (2013). However, in the year 2014, 22 organizations have signed in the memorandum of understanding with the Office of NBTC and 126 trainings were organized. The test for the announcement certificate in broadcasting and television services will be organized for those who passed the training in advance level in both Bangkok and regions. In 2014, 2 tests were held in Bangkok and Chiangmai, and there will be more tests to be held in other regions in the future.



## 6. Digital Broadcasting and Television Switch Over

### 1) Formulating Radio Frequency Plan for Digital Terrestrial Television Services and Plan for the Commencement of Mobile Television Transmission

- Issuing the NBTC Notification on Radio Frequency for Digital Terrestrial Television Services (No.2) B.E.2557 (2014) with the objective to make an amendment to the NBTC Notification on Radio Frequency for Digital Terrestrial Television Services for the appropriateness.
- Having studied and gathering information for the report on feasibility study of the mobile television transmission project.

### 2) Operating the process of licensing to use spectrum for the provision of public services of digital television, type 3 which aims to disseminate information for promoting good understanding between the government and citizen, and the parliament and citizen. The licensing application have already been received by the Office of NBTC.

### 3) Provision of Digital Terrestrial Television Network Service Having set the installation plan of radiocommunications stations for the provision of digital terrestrial television network service, following-up the operation of digital terrestrial television network expansion, and monitoring and measuring signal strengths level of digital terrestrial television broadcasting stations.

### 4) Implementing the Project for Supporting the Public in the Digital Terrestrial Television Switch Over by distributing the 690 baht digital TV coupon for supporting the public to receive the digital terrestrial television service with an effectiveness and efficiency, and tangible achievement, and supporting the digital terrestrial television switch over as well. In 2014, the coupons were distributed to 7,046,391 households.

### 5) Setting up the System for Monitoring Digital TV Service Areas in order to provide knowledge and information on the provision of digital terrestrial television network service in 39 main stations throughout the country, including the provision of information on Digital TV Service Area. The system will be able to used via web browser or portable communication devices, tablets, smart phones both in Android and iOS operating system.





#### 6) Preparedness for the Introduction of Digital Terrestrial Radio Services

**Transmission** by having signed in the memorandum of understanding on the collaboration for trial system of digital radio broadcasting transmission with 8 public and private agencies, which included the operation on spectrum value evaluation for digital radio broadcasting services.

### 7. Development of a Management System to Become an Efficient Regulating Organization

#### 1) Following-up and Evaluation on the Progress Implementation of the

**Broadcasting Master Plan No.1 (2012 - 2016)** Comprising the preparation of the book, “Manual for Following-up the Radio-Television Master Plan, the NBTC, Direction of Thai Radio-Television Media” so that the interested parties and the general public are able to understand the core content of the Master Plan, and targets in a given time, the following-up and evaluation in the form of a visit to digital television broadcasting stations who won the auction in type of national commercial service in order to acknowledge of the operation and problems may arise and gather those information for resolving in further action, following-up and evaluation on the progress implementation of the Broadcasting Master Plan No.1 (2012 - 2016), as well as preparing report on “Changeable Circumstance of the Media, the Result from the Implementation of the Broadcasting Master Plan No.1 (2012 - 2016), which emphasized on qualitative analysis for evaluating the results after the implementation of the Master Plan.

#### 2) Developing Capabilities of the Organization and Human Resources

through the personnel recruitment and selection and development of personnel’s capability via setting up the training courses to support the Individual Development Plan (IDP) whether the skill-based course set or the knowledge-based course set.

### 8. The Performance under the Strategies of the 1<sup>st</sup> Broadcasting Master Plan (2012-2016)

In 2014, the BC has performed its tasks under the mission and goals of the Broadcasting Master Plan No.1 which have announced in the Royal Gazette on 4 April 2012 as follows:



## Strategy 1: Licensing to Use Spectrum and Broadcasting and Television Services

In 2014, the Broadcasting Commission (BC) had implemented the Broadcasting Master Plan No.1 (2012 - 2016) on the licensing to use spectrum and broadcasting and television services which can be divided into 8 main dimensions: 1) issuance of the NBTC Notification concerning the licensing to use spectrum and broadcasting and television services 2) issuance of licenses for broadcasting and television services 3) type approval of standard 4) operation on fees and service rate 5) consideration of necessity to use and hold the spectrum 6) development of GIS system for broadcasting and television services 7) operation on projects concerning monitoring, conformity prototyping, and other operations related to the broadcasting and television devices and equipment, and 8) provision of technical information.

### 1) Issuance of the NBTC Notification concerning the licensing to use spectrum and broadcasting and television services

- Setting the type and category of broadcasting services for being a foundation in line with the development of broadcasting and television services and the promotion of free and fair competition

In 2014, the BC had issued the NBTC Notification on Type and Category of Broadcasting Services (No.2) B.E.2557 (2014) which is the revision to the NBTC Notification on Type and Characteristics of Broadcasting Services in order to determine the type and category of the provision of service for being applied in accordance with the environment of broadcasting services which will help set a clear framework of the broadcasting service to be used as guidelines for the effective broadcasting operation and regulation.

- Setting criteria and licensing procedure

In 2014, the BC had issued the NBTC Notification on Criteria and Licensing Procedure for the Broadcasting Service Provision (No.2) B.E.2557 (2014) which is the amendment to the NBTC Notification on Criteria and Licensing Procedure for the Broadcasting Service Provision B.E.2555 (2012) with the purpose of licensing and regulating the use of spectrum for broadcasting services or television broadcasting for public service (type 2) for state security or public safety.



- Setting practical guideline for the radio broadcasting stations that have been granted the licenses for trial operation of broadcasting service under the Notification of National Council for Peace and Order

Issuing the Office of NBTC Notification on Practical Guideline for the radio broadcasting stations that have been granted the licenses for trial operation of broadcasting service, under the Notification of National Council for Peace and Order No.79/2014 regarding the conditions of the broadcasting of radio broadcasting stations that have been granted licenses to broadcast for trial operation with the objective to ensuring the clarity of the compliance to the Notification of the National Council for Peace and Order, as well as the dissemination of information to the public shall be done in a correctness manner and without distortion which may affect on maintaining order.

## 2) Issuance of licenses for broadcasting and television services

- Issuance of licenses for broadcasting and television services for the provision of digital terrestrial television services in category of national commercial service.

In 2014, the BC had passed a resolution to grant the licenses to 20 applicants who applied for the use of spectrum and television broadcasting service in order to provide the service on digital terrestrial television in category of national commercial service for totally 24 licenses. The licenses have become into effective during 25 April 2014 - 24 April 2029. Details is shown in Table 12.



1 Providing service for business licensing applicants



**Table 12:** List of Licensees to Use Spectrum and Operate Television Business for the Provision of Digital Terrestrial Television in the Category of National Commercial Service

Channel No.	Category of Children, Youth, and Family		Channel No.	Category of News and Content		Channel No.	Category of General With Normal Definition		Channel No.	Category of General With High Definition	
	Juristic person	Channels		Juristic person	Channels		Juristic person	Channels		Juristic person	Channels
13	BEC Multimedia Company Limited	3 FAMILY	16	Thai News Network (TNN) Company Limited	TNN24	23	Thai Broadcasting Company Limited	Workpoint TV	30	MCOT Public Company Limited	MCOT HD
14	MCOT Public Company Limited	MCOT Kids & Family	17	Thai TV Company Limited	Thai TV	24	True4U Station Company Limited	True4U	31	GMM One TV Company Limited	ONE
15	Thai TV Company Limited	LOCA TV Station	18	DN Broadcast Company Limited	(NEW TV)	25	GMM Channel Company Limited	GMM Channel	32	Triple V Broadcast Company Limited	Thairath TV
			19	Spring News Television Company Limited	Spring News TV Station	26	Bangkok Business Broadcasting Company Limited	NOW	33	BEC Multimedia Company Limited	3 HD
			20	Bright TV Company Limited	Bright TV	27	RS Television Company Limited	8	34	Amarin Television Company Limited	AMARIN TV HD
			21	Voice TV Company Limited	VOICE TV	28	BEC Multimedia Company Limited	3 SD	35	Bangkok Broadcasting & TV Company Limited	7 HD
			22	NBC Next Vision Company Limited	Nation TV	29	Mono Broadcast Company Limited	Mono 29	36	Bangkok Media and Broadcasting Company Limited	PPTV

Source: Television Broadcasting Business Licensing Bureau





- **Issuance of licenses broadcasting and television for non-spectrum used services**

In the previous times, the BC had issued licenses according to the NBTC Notification on Criteria and Licensing Procedure for the Provision of Broadcasting or Television Services B.E.2555 (2012), the NBTC Notification on Criteria and Licensing Procedure for the Provision of Broadcasting or Television Network Services B.E.2555 (2012), and the NBTC Notification on Criteria and Licensing Procedure for the Provision of Broadcasting or Television Facility Services B.E.2555 (2012). On 31 December 2014, the totally number of licenses granted were 1,153 licenses. Details is shown in Table 13.

**Table 13:** Issuance of Radio or Television Broadcasting License for Non-Spectrum Used Services

Category	No. of Licenses
Broadcasting or Television (channels) Service	733
Broadcasting or Television Network Service Provision	414
● National	37
● Regional	60
● Local	317
Broadcasting or Television Facility Service Provision	6
<b>Total</b>	<b>1,153</b>

Source: Television Broadcasting Business Licensing Bureau

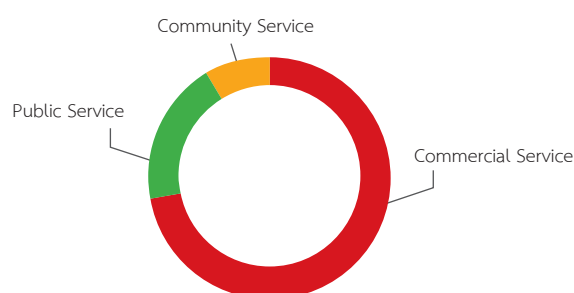
- **Issuance of licenses for trial operation of radio broadcasting services.**

Having granted licenses for trial operation of radio broadcasting services under the NBTC Notification on Licensing Criteria for Trial Operation of Radio Broadcasting Services B.E.2557 (2014). On 31 December 2014, the totally number of licenses granted were 5,657 licenses. Details is shown in Table 14.

**Table 14:** Issuance of License for Trial Operation of Radio Broadcasting Services

Type	No. of Licenses
Commercial Service	4,016
Public Service	1,087
Community Service	554
<b>Total</b>	<b>5,657</b>

Source: Radio Broadcasting Business Licensing Bureau

**Chart 3:** Radio Broadcasting Services Licensing for Trial Operation

However, the broadcasting stations who have been granted licenses will be able to broadcast the service only if they have complied to the Notification of National Council for Peace and Order No.79/2014 regarding the conditions of the broadcasting of radio broadcasting stations that have been granted licenses to broadcast for trial operation, and the Office of NBTC Notification on Practical Guideline for the radio broadcasting stations that have been granted the licenses for trial operation of broadcasting service under the Notification of National Council for Peace and Order No.79/2014. On 31 December 2014, the totally number of the broadcasting stations who were allowed to broadcast were 3,443 stations of which 2897 stations are in type of commercial service, 392 stations are in type of public service, and 154 stations are in type of community service.

- **Issuance of licenses for the produce, import, sale, or having in possession for sale, or installation of transceivers or equipment**

In 2014, the BC had issued 406 licenses for the produce, import, sale, or having in possession for sale, or installation of transceivers or equipment under the NBTC Notification on Criteria and Licensing Procedure for the Import, Sale or Having in Possession for Sale, or Installation of Transceivers or Equipment that can receive or synthesize frequencies for receiving broadcasting signals in subscription service B.E.2555 (2012). Details is shown in Table 15.



**Table 15:** Issuance of License to Produce, Import, Sale or For Sale, or Install Transceivers or Equipment

Type of License	No. of Licenses
Produce	53
Import	184
Sale	68
Having in possession for sale	63
Having in possession for installation	41
<b>Total</b>	<b>406</b>

Source: Network, Facilities and Equipments for Broadcasting Business Licensing Bureau

- Issuance of licenses for the manufacture, import, export, use, install radiocommunications equipment under the Radiocommunications Act B.E. 2498 (1955).

In 2014, the BC had issued 6,186 licenses for the manufacture, import, export, use, install radiocommunications equipment under the Radiocommunications Act B.E.2498 (1955). Details is shown in Table 16.

**Table 16:** Issuance of License for the Manufacture, Import, Export, Use, Install Radiocommunications under the Radiocommunications Act 1955

Type of License	No. of Licenses
Manufacture	2,461
Import	610
Export	409
Use	1,379
Installation of Stations	1,327
<b>Total</b>	<b>6,186</b>

Source: Network, Facilities and Equipments for Broadcasting Business Licensing Bureau



### 3) Type approval of standard

In 2014, the BC had operated the examination and support technical information of radiocommunications and equipment in broadcasting and television services in order to be used for the consideration of licensing for the spectrum-used services and non-spectrum-used services, the examination of radio transmitters of radio broadcasting services for licensees of trial operation, including having issued the sticker label indicating the examination and type approval. Details are shown in Table 17 - 20.

**Table 17:** Examination and Support of Technical Information of Radiocommunications and Equipment in Broadcasting and Television Services for the Consideration of Licensing for Spectrum-Used Services

(unit: type/model)

Months	STB (DVB-T2)	iDTV	Portable	Total
Jan - Dec 2014	147	238	45	430

Source: Broadcasting Engineering Standard Approval Bureau

Remarks: 1. STB (DVB-T2) is the digital terrestrial television TV transceiver without display screen.  
2. iDTV is the digital terrestrial television TV transceiver with display screen (Integrated Digital Television)  
3. Portable is the digital terrestrial television TV transceiver in type of portable/mobile/in car

**Table 18:** Examination and Support of Technical Information of Radiocommunications and Equipment in Radio and Television Broadcasting Services for the Consideration of Licensing for Non-Spectrum Used Services

(unit: type/model)

Months	Sat	Cable	IPTV	Total
Jan - Dec 2014	90	27	7	124

Source: Broadcasting Engineering Standard Approval Bureau

Remarks: 1. Sat is the digital television transceiver for subscription service to be used for connecting satellite TV system.  
2. Cable is the digital television transceiver for subscription service to be used for connecting cable TV  
3. IPTV is the digital television transceiver for subscription service to be used for connecting IP TV

**Table 19:** Examination of Radio Transmitters of Radio Broadcasting Services for Licensees of Trial Operation

(Unit: device)

Months	Commercial Services	Public Services	Community Service	Total
Jan - Dec 2014	2,477	480	113	3,070

Source: Broadcasting Engineering Standard Approval Bureau





Table 20: Sticker Label for Testing and Standard Certification

(unit: device)

Months	STB (DVB-T2)	iDTV	Portable	Total
Jan - Dec 2014	13,221,429	1,632,592	2,577,189	17,431,210

Source: Broadcasting Engineering Standard Approval Bureau

#### 4) Operation on fees and service rate

Having operated on fees and service rate in broadcasting and television services as follows:

- Managing system for determination of broadcasting fees and service rate

In order to facilitate the licensees for paying the license fees correctly and quickly, as well as to support the management system of annual license fees to be more efficient, the Office of NBTC have developed a system for managing license fees which can be linked to the broadcasting licensing database for enhancing the efficiency in the calculation of license fees and revenue forecast from the license fees, being able to support all licensees, as well as preparing a report in the format and time given.

Moreover, the system shall be used for analyzing service rates that can evaluate the complicated financial model and demonstrate of the accurate and reliable results of calculation with information security system, and being reliable for the operators. The system can also be linked to the broadcasting licensing database and able to receive information directly from the operators through website (web-based): <http://licensefee.nbtc.go.th>. (officially open since 1 May 2014)

- Setting up guidelines for the payment verification of annual license fees in the broadcasting and television services, and guidelines for the consideration of revenue generating from the business operation which



1 Website of the management system for determination of fees and service rate

1



are used as a calculation base for the annual license fees for the licensees, and staff of the Office of NBTC concerned both in the headquarters and regional offices to ensure of the right practical guidelines for verifying the revenue generating from the operation in which the licensees used as a calculation base for the annual license fees, within 90 days starting from the date of receiving financial statements of the Office of the NBTC.

- Knowledge dissemination on the annual license fees  
Having disseminated knowledge to the licensees so that they gain a deeper understanding about the intention and purposes of the broadcasting license fees collection, inventory, document arrangement, and procedure for applying the broadcasting license fees, including the classification of costs for being used as the regulating information on service rates in the broadcasting and television services by organizing 8 trainings for the broadcasting licensees and staff concerned of the Office of NBTC both in the headquarters and regional offices. The knowledge dissemination also included the provision of guideline manual for determining revenue generating from the operation which are used as a calculation base for the annual license fees, and suggestion on the form completion and procedure for applying of the license fees payment or other relevant forms.

1,2 The dissemination of knowledge on the annual fees, accounting, classification of costs and revenues in broadcasting and television services.



## 5) Consideration of necessity to use and hold spectrum

In 2014, the BC had considered the necessity to use and hold spectrum of government agencies, state enterprises, other public agencies or any persons who have been allocated the spectrum with necessity to use and hold the spectrum and granted the license for 3-year period. The consideration process of necessity to use and hold spectrum must be approved by the Sub-committee for considering the necessity to use the spectrum for broadcasting and television services for proposing recommendations to the BC and NBC for consideration respectively. Details is shown in Table 21.

**Table 21:** The consideration of necessity to use and hold spectrum

Operation Result	Organization	The NBTC's Resolution
<p>The BC's Resolution of the Meeting No. 1/2014 (3 Feb 2014)</p> <p>The BC's Resolution of the Meeting No. 2/2014 (12 Feb 2014)</p>	Thai TV3	<p>The contract for joint operation of television transmission between the MCOT Public Company Limited and Bangkok Entertainment Company Limited has been carried out lawfully, and the joint cooperation contract has lasted for 30 years starting from 26 March 1990 and will be ended on 25 March 2020.</p> <p>It is therefore in accordance with the Spectrum Management Master Plan B.E.2555 (2012).</p>
The BC's Resolution of the Meeting No. 52/2014 (1 Dec 2014)	MCOT Public Company Limited, Public Relations Department, Royal Thai Army, Royal Thai Air Force, Royal Thai Navy Headquarters, Royal Thai Armed Forces Headquarters, Defence Energy Department, Royal Thai Police Headquarters, the Office of NBTC, The Secretariat of House of Representatives, Bureau of the Royal Household, Bangkok Metropolitan Administration, Marine Department, Department of Agricultural Extension, Meteorological Department, Department of Fisheries, Ministry of Foreign Affairs, Ministry of Education, Rajamangala University of Technology Thanyaburi, Chulalongkorn University, Thammasat University, Kasetsart University, Chiang Mai University, Prince of Songkla University, Naresuan University, Mahasarakham University, Khon Kaen University	In process of consideration of the BC

Remarks: In cases of Royal Thai Army Radio and Television Channel 5, Modern Nine TV, Television of Thailand Channel 11, Thai Public Broadcasting Service, and the Royal Thai Army Television Channel 7 had already been proposed to the NBTC for consideration in 2013.

## 6) Development of GIS system for broadcasting and television services

Having conducted the project for the development of GIS system for broadcasting and television services (Broadcasting GIS) with the objectives to import geographic information displaying on a map of the documents attached to the application for a license such as core transmission line, coaxial cable or fiber optic, latitude/longitude data of the location of a station, or head end rooms,

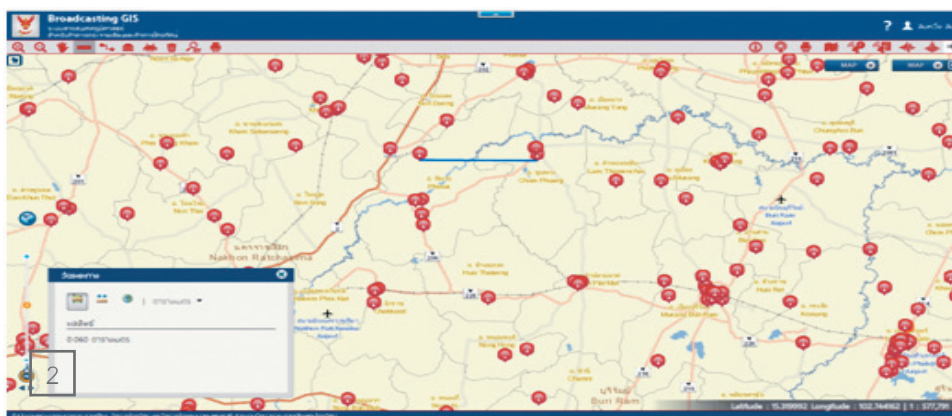
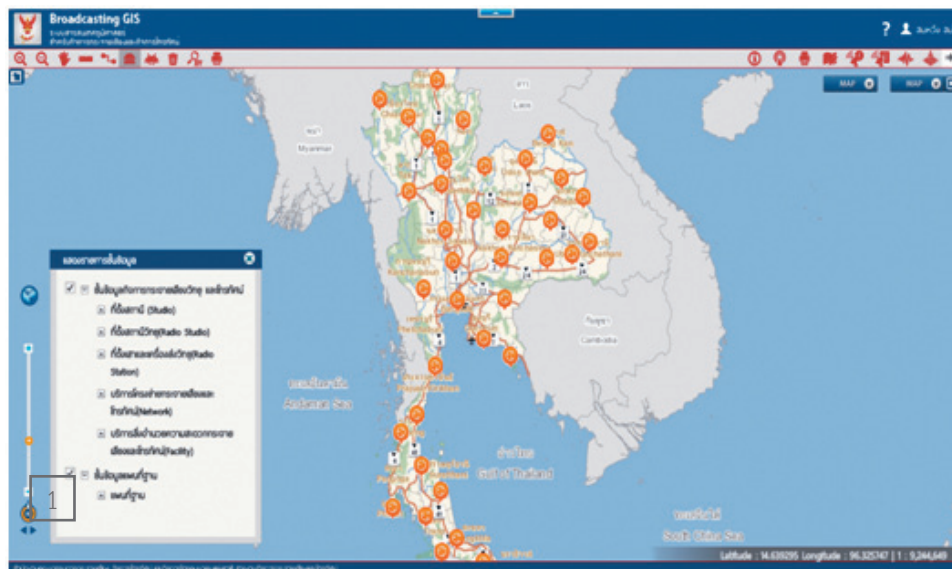


both the broadcasting and television services, to be stored in a GIS format in order to be convenient for Simple and easy to find Optimization analysis Consideration of searching information, increasing efficiency of the analysis for the consideration of licensing.

The GIS system for broadcasting and television services also includes functions for facilitating the map data analysis to support the consideration of licensing such as the function for measuring distances between radio stations, the function for map data searching such as latitude/longitude data of radio and television broadcasting stations with both spectrum used and non-spectrum used, data of transmission line (coaxial cable or fiber optic), etc., the function for displaying of a radius covering radio station areas, and so on.

1 Data layers that are imported into GIS system for broadcasting and television services (Broadcasting GIS)

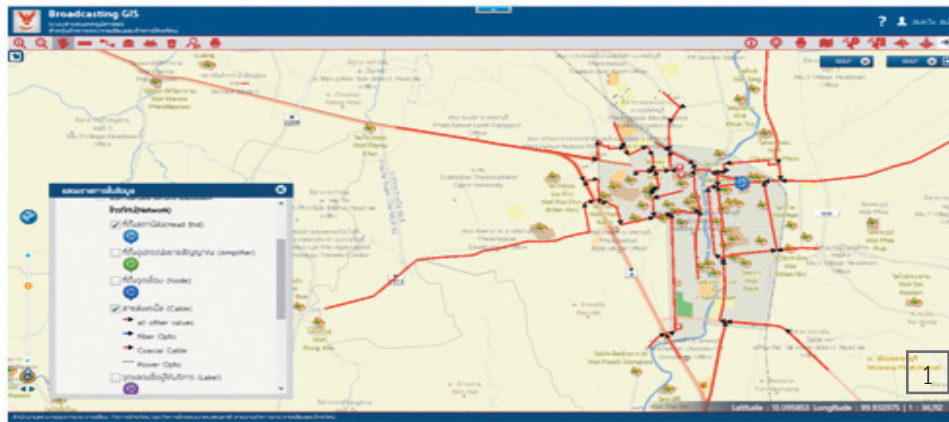
2 Function for measuring distances between two radio stations



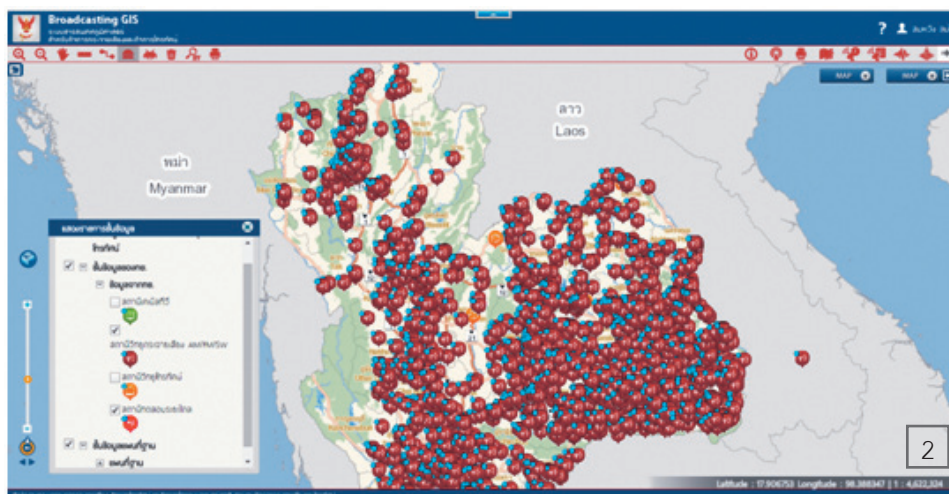




- 1 Transmission line (coaxial cable or fiber optic) which are imported into the GIS system
- 2 Map data link to other internal units of the Office of NBTC



The project has also included the provision of digital terrain model (DTM) data and the cluttered image data for being used in the data analysis of transmission in the spectrum used services, supporting the transition of digital television switch over, including the map data link to other internal units of the Office of NBTC by using the map service technology, which will display a real time data from the field survey of the officials in regional offices. The layers of relevant data in broadcasting and television services are cable TV stations, radio broadcasting stations in AM/FM/SW system, radio and television data, remote testing stations, etc.





## 7) Operation on projects concerning monitoring, conformity prototyping, and other operations related to the broadcasting and television devices and equipment

- Project for the establishment of a laboratory for testing radiocommunications devices and equipment under the Radiocommunications Act B.E.2498 (1955) has its objectives to provide tools for testing the qualification of the devices or equipment, and to support the process of applying for manufacture, import, sale, or having in possession for sale or installation of devices or equipment to be used in the radio broadcasting service for trial operation.
- Project for the establishment of mobile laboratories (Mobile Lab) for monitoring signals or conducting type approval of radiocommunications devices and equipment under the Radiocommunications Act B.E.2498 (1955), and transmitting devices of radio broadcasting service for trial operation.
- Project for the establishment of the prototype of the radio transmitters with a transmitting power of 500 watts, which aims to create a prototype of standard radio transmitters with a transmitting power of 500 watts for being an alternative for radio stations applying for permission to operate a trial service, and used as a demonstration set in the trainings for operators in the radio broadcasting service.
- Project for the analysis study of the reverse intermodulation behavior of the radio broadcasting stations which have installed nearby each other, and Guidelines for reducing frequencies interference of the radio broadcasting stations for trial operation which will be used as supporting information for the management of radio broadcasting stations and the trainings on technical information to be held for relevant parties.
- Project for the supply of Dummy Load and Thruline Wattmeter which will be used before monitoring the radio broadcasting transmitters as it was found that some operators have broadcasted with exceeded watts of radio broadcasting transmitter and beyond the resistance of measuring devices which can damage the measuring devices sponsoring by the Office of NBTC.



## 8) Provision of technical information

- Having organized meetings for technical information and knowledge exchange on radio broadcasting transmitter and broadcast. In 2014, five meetings were held as shown in Table 22.

Table 22: Meeting for Technical Knowledge Exchange on Radio Broadcasting Transmitter and Broadcast

No.	Dates	Venue
1	30 March - 2 April 2014	Phitsanulok
2	20 - 23 April 2014	Chiang Rai
3	27 - 30 April 2014	Nakhon Ratchasima
4	5 - 8 May 2014	Surat Thani
5	19 - 20 May 2014	Bangkok

Source: Broadcasting Technology and Engineering Bureau

- Having organized two meetings for enhancing technical knowledge and understanding of digital terrestrial television transceiver for the Office of NBTC staff. Details is shown in Table 23.

Table 23: Meeting for Enhancing Technical Knowledge on Digital Terrestrial Television Transceiver

No.	Dates	Venue
1	25 April 2014	Bangkok
2	1 July 2014	Bangkok

Source: Broadcasting Technology and Engineering Bureau



## Strategy 2: Regulation of Broadcasting and Television Services

In regulating the broadcasting and television services for the benefit of the economy, society and security, and the proper use of spectrum without interference, including the free competition under transparent and fair rules, in 2014 the operation have been conducted in 7 dimensions; 1) regulation of TV programs and contents 2) promotion and regulation of competition 3) self-regulation 4) regulation of service rates in broadcasting and television services 5) regulation of technical aspects 6) establishment of citizen network (audience) in broadcasting and television services 7) regulation of other matters.

### 1) Regulation of TV programs and contents

- Having issued the NBTC Notification on Criteria for the Programming of Radio Broadcasting or Television Services (No.2) B.E.2557 (2014) with the objectives to amend the NBTC Notification on Criteria for the Programming of Radio Broadcasting or Television Services B.E.2556 (2013) dated 27 February 2013 to be in accordance with the type of service of the licensees for the subscription broadcasting or television service with non-spectrum used, including the formulation of the (draft) NBTC Notification on Criteria for the Programming of Radio Broadcasting or Television Services (No.3) B.E. .... for the appropriateness of the duration for keeping program recording tape that the licensees for broadcasting or television services must do under Section 38 of the Broadcasting Business Act B.E.2551 (2008), and for the efficiency of the broadcasting and television services regulation. At the end of 2014, the draft Notification has been in the process of gathering comments from the focus group and relevant information for proposing to the BC meeting and NBTC meeting for approval before publishing in the Royal Gazette.
- Having regulated program content under the Notification of the National Council for Peace and Order No.97/2014 dated 18 July 2014 regarding provision of cooperation to the operation of the National Council for Peace and Order and the information dissemination to the public, and the Notification of the National Council for Peace and Order No.103/2014 dated 21 July 2014 regarding the additional amendment to the Notification of the National Council for Peace and Order No.97/2014 by monitoring contents in channels that presented political content, and invited operators to clarify the facts concerning the broadcasted content which may be contrary to the Notification of the National Council for Peace and Order, and shall be opposed to Section 37 of the Broadcasting Business Act B.E.2551 (2008) as well.





1 The meeting of Sub-committee on Program Schedule and Content, and the training on technical knowledge on laws.

- Monitoring and analyzing program contents as being notified by the licensees of the change of TV program if it is appropriate and in line with the NBTC Notification on Criteria for the Programming of Radio Broadcasting or Television Services B.E.2556 (2013) in order to support the consideration of the change of TV program

## 2) Competition Promotion and Regulation

Setting up criteria on competition promotion and regulation in broadcasting and television services as follows:

- Having issued the NBTC Notification on Criteria for the Designation of the Operators with Significant Market Power in the Relevant Market of Broadcasting and Television Services and Special Measure for Preventing the Acts of Monopolies or Unfair Competition B.E.2557 (2014) with the objectives to consider the scope of relevant market in broadcasting and television service, evaluate competition situation in the market, and evaluate the operators with significant market power. Also, the Notification has prescribed special measures to be applied to the operators with significant market power in order to prevent the actions that are deemed to be monopolistic, reducing or limiting the competition in the broadcasting and television services.
- Having issued the NBTC Notification on Criteria for the Consideration and Determination of Special Measures to Remedy the Consequence



of the Monopolistic Behaviour or Causing the Unfair Competition in the Broadcasting and Television Services B.E.2557 (2014) with the objectives to set up the criteria for the consideration of the monopolistic behaviour or causing the unfair competition in the broadcasting and television services, as well as to set up special measure to remedy the consequence of the monopolistic behaviour or the unfair competition.

- In 2014, the NBTC Notification on Characteristics and Regulatory Measures for Merger, Acquisition, and Service Dominance of Broadcasting and Television Services has been drafted in order to prevent the actions that are deemed to be monopolistic, reducing or limiting the competition in the broadcasting and television services. The contents of the Notification have include measure for regulating the mergers and acquisition, the service dominance by persons who have common interests, as well as guidelines to measure the impact of the mergers<sup>3</sup>
- Having drafted the Competition Regulation Guideline for promoting and regulating competition on broadcasting and television services.
- Having organized Focus Group meetings for promoting free and fair competition as shown in Table 24.

**Table 24:** Focus Group Meetings for promoting free and fair competition

No.	Topics	Dates	Venue
1	Sub-group meeting to discuss ways to promote the neutrality of information for the equality of the competition in commercial television service	11 February 2014	The Office of NBTC
2	The project to study on impact and set up guidelines for regulating the cross-media rights	13 February 2014	University of the Thai Chamber of Commerce
3	Workshop on guidelines for the competition regulation on Pay TV	4 June 2014	The Office of NBTC
4	The competition regulation on Pay TV	10 June 2014	The Office of NBTC
5	Focus group meeting to set up guideline for resolving the delays of television network expansion in category of spectrum-used digital terrestrial system.	19 November 2014	The Office of NBTC

Source: Broadcasting Competition Promotion and Self-Regulation Bureau

<sup>3</sup> published in the Royal Gazette No.132 special 17D on 20 January 2015



1, 2, 3, 4 Focus Group meeting for the promotion of free and fair competition

### 3) Self-regulation

- Knowledge Exchange and establishment of network for promoting self-regulation

Having exchanged knowledge and experiences and establishing networks for promoting the self-regulation by organizing focus group meetings, tripartite meetings, seminars for promoting the self-regulation of media. Details is shown in Table 25.



**Table 25:** The Operation for Knowledge Exchange and Network Establishment for Promoting Self-Regulation in 2014

No.	Topics	Dates/Venue
1	The focus group meeting for self-regulation on “Standard of Political News Presentation” to be a forum for exchanging ideas or opinions and discussing on guideline for solving the problems, among regulator and media professionals especially the radio and television media operators that provided political news to the public, on the issue of standard of the political news presentation of radio and television stations so that the media, who act as a middleman to coordinate the public’s understanding within society, can use as a code of conduct for presenting accurate, proper, balanced, and unbiased information under its responsibility to the public interest including the existing rights and liberty under the Constitution of the Kingdom of Thailand B.E.2550 (2007) to maintain the ethics and code of conduct of the media professionals.	12 March 2014 The Office of NBTC Bangkok
2	The tripartite seminar for the presentation of the ethics manual and study research of self-regulation in broadcasting and television services, and the study report and recommendations on the appropriate regulatory guidelines and mechanisms for Thailand by Uttaradit Rajabhat University for the development of Guideline for Broadcasting Self-Regulation and the academic information presented in the seminar will be used as guidelines for setting up the standard of professional ethics and the promotion of self-regulation of professional organization.	30 May 2014 Bangkok
3	Seminar on “Protecting the Rights of Children and Women in TV Programs and News” in order to encourage the exchange of views and information in the perspective of human rights, professional ethics, journalism, mass media, especially the issue of protecting the rights of children and women broadcasting in television programs such as news, soap opera, and so on.	18 August 2014 Bangkok
4	Seminar on the knowledge exchange on self-regulation of the digital television service operators in order to enhance knowledge and understanding of guidelines and procedure for monitoring programs and advertisement of the stations before broadcasting.	29 August 2014 Bangkok
5	Seminar on “Reflections of Children and Women in the Soap Operas of Thai Television” to brainstorm views and opinions in term of academic and concrete aspects. The participants to the seminar consisted of the experts in mass media, the professionals in the production of soap opera, producers, TV soap opera directors, playwright, and digital television service operators. All views and comments gathered from the seminar had been used for considering and proposing as the information for the operation on promoting ethical standards of media professionals and the production of soap operas.	18 September 2014 Bangkok
6	Seminar on “rights of people in the news VS rights to be informed of news, how? how much? in crime news” in order to build a common understanding of the mass media in performing their duties of the news presentation that affected on the human dignity and rights of human of the accused people in the news, to be careful of the consequences after the presentation of the media whether the impact on the people in the news, families or society.	30 October 2014 Bangkok

Source: Broadcasting Competition Promotion and Self-Regulation Bureau





1, 2, 3 Seminar on knowledge exchange and network establishment for promoting self-regulation

- **Setting up Guideline and Mechanism for supporting Media Self-Regulation**

Having conducted activities for setting up guideline and mechanism for promoting media self-regulation as shown in Table 26.



**Table 26:** Activities on setting up the guideline and mechanism for promoting media self-regulation

No.	Topics	Dates/Venue
1	Meeting for setting up self-regulation plan of eleven professional organizations in order to discuss on guideline for building collaboration under the intention of the eleven professional organizations. Participants to the meeting consisted of Professional Council for Public Broadcasting Service (Thailand), Satellite Television Association (Thailand), Thai Public Broadcasting Service (Thailand) Professional Council, Satellite Television Association (Thailand), People's Television Broadcasting Professional Council, Advertising Association of Thailand, Thai Broadcast Journalists Association, News Broadcasting Council of Thailand, National Federation of Community Radio, Cable TV Association of Thailand, Association of Media Relations Jakchai for Security, Thai Local Radio Vocation Association, Thai Television and Radio Broadcasting Professional Council, and Digital Terrestrial Television Operators Association	7 March 2014 The Office of NBTC Bangkok
2	Consultation meeting for setting up guideline for operation of the Office of NBTC for the self-regulation roadmap and the co-operation according to the intention of News Broadcasting Council of Thailand	26 March 2014 Meeting Room, Thai News Broadcasting Council Building Bangkok
3	Consultation meeting on mechanism for self-regulation of the Advertising Association of Thailand and its members such as standard of ethics, code of conduct, regulatory procedure or advertisement monitoring, complaint receipt process, measure for remedy	18 July 2014 The Office of NBTC Bangkok
4	Meeting on "Mechanism for Self-Regulation in Satellite Television Service" to enhance the understanding of the satellite television network and satellite service providers on the self-regulation process of the professional organizations and practical guidelines on ethics of the profession so that it can be used as the practice guideline for establishing the mechanism for self-regulation in satellite television service as well as to exchange experiences in the self-regulation mechanisms of the professional associations.	24 July 2014 The Office of NBTC Bangkok
5	Encouraging the operators to set up a system for supporting the broadcasting and television services efficiently in case of disasters or emergencies by having organized the meeting for exchanging views in the operation of television service operators in case of disasters or emergencies and discussing for setting up guideline for the preparation on news presentation in case of disasters or emergencies. Participants to the meeting consisted of the Office of NBTC, television service operators, disaster warning center, Meteorological Department, and other relevant public agencies.	31 July 2014 The Office of NBTC Bangkok

Source: Broadcasting Competition Promotion and Self-Regulation Bureau



#### 4) Regulation on Service Rates in Broadcasting Services to be fair for the Public Benefit

Having formulated the (draft) NBTC Notification on Regulatory Guidelines on Service Rates in the Broadcasting or Television Services by taking into account the principle of good governance, minimal market intervention, or as necessary, and focusing on the market with no competitive or less competitive where the market mechanism cannot function effectively, or the competitive market but such competition has led to a negative impact on the market or the users.

The regulatory guidelines will be complied with the principles and international standards, with the appropriateness, transparency, and fairness for both users and service providers, on the consideration of the public interest, the burden of consumers, and the efficient resources management.

#### 5) Technical Regulation

The BC has conducted activities concerning technical aspects of the broadcasting services whether for the prevention or problem resolution as follows:

- Setting up the project for supporting laboratories for testing the technical standards of radio broadcasting transmitters for trial operation which is the cooperation among the Office of NBTC, academic institutes and public agencies in order to resolve the technical problems of frequencies interference. By the end of 2014, the Office of NBTC has provided its support to 30 organizations for improving the laboratories by means of purchasing, supplying, or outsourcing of tools or equipment or laboratory improvement.
- Having registered the testing laboratories for technical standards of radio broadcasting transmitters for trial operation with the objectives to regulate the tools and equipment of broadcasting and television services, verify tools and equipment, and register and regulate the testing laboratories for technical standards of radio broadcasting transmitters for trial operation, including having established 35 testing laboratories in the Regional Office of NBTC for both mobile laboratories and standard laboratories. Details is shown in Table 27.

**Table 27:** Number of Laboratories which has been registered as Laboratories for Testing Technical Standards of Radio Broadcasting Transmitters for Trial Operation

North	South	Central	North Eastern	Total
4	5	20	6	35

Source: Broadcasting Engineering Standard Approval Bureau





- Having conducted the simulation of frequencies interference of radio broadcasting stations by analyzing the interference caused by the radio wave propagation of 32 radio broadcasting stations that has not been authorized according to the Radiocommunications Act B.E.2498 (1955) and failed to meet the prescription of the criteria of the use of spectrum for trial radio broadcasting service and 314 main FM stations.
- Having conducted the simulation of frequencies interference of radio broadcasting stations by analyzing the interference caused by the radio wave propagation. At present, 36 radio broadcasting stations that are eligible to apply for the licenses of trial operation according to the licensing criteria of radio broadcasting service for trial operation have been granted the permission, one station is in the process of consideration, and 314 main FM stations.
- Having coordinated with neighboring countries on international spectrum management which are to coordinate for preventing and resolving the problems of spectrum interference in the areas along common border with Malaysia, Cambodia, and Laos, discuss and consider the radio frequency coordination for resolving the frequencies interference in broadcasting, television, and radiocommunications services in the common border areas including frequency planning for the utmost use of radio frequencies in border areas. Details has been presented in Part 3: Major Performance of the NBTC in 2014.

## 6) Citizen Network Establishment (Audience) in Broadcasting and Television Services



1 Citizen Network Establishment (Audience) in Broadcasting and Television Services





The Office of NBTC has established the citizen network (audience) in broadcasting and television services by having constantly organized 15 meetings in order to provide knowledge for the citizen network. Details is shown in Table 28.

**Table 28:** Citizen Network Establishment (Audience) in Broadcasting and Television Services

No.	Dates	Venue
1	8 - 9 February 2014	Ayutthaya
2	1 - 2 March 2014	Surat Thani
3	8 - 9 March 2014	Songkhla
4	10 - 11 May 2014	Nakhon Phanom
5	6 - 7 September 2014	Krabi
6	27 - 28 September 2014	Ubon Ratchathani
7	11 - 12 October 2014	Khon Kaen
8	25 - 26 October 2014	Chiang Mai
9	1 - 2 November 2014	Phitsanulok
10	8 - 9 November 2014	Chiang Rai
11	15 - 16 November 2014	Chon Buri
12	22 - 23 November 2014	Bangkok
13	29 - 30 November 2014	Phetchaburi
14	13 - 14 December 2014	Ayutthaya
15	24 - 25 December 2014	Nan

Source: Broadcasting Consumer Protection Bureau



## 7) Other areas of Regulation

Apart from the regulations in regards to the major dimensions as mentioned earlier, the BC has also regulated other areas of broadcasting and television services as follows:

### (1) Legal operation and regulation

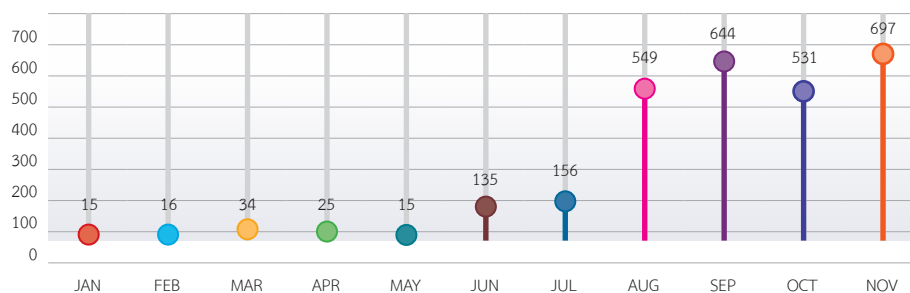
- Filing the complaints and accusation to the Commissioner-General of the Royal Thai Police or the superintendent of police stations in areas of responsibilities for a total of 106 radio broadcasting stations comprising the interference to the aeronautical radio network for 3 stations which are being under the process of prosecution, and the interference to other networks for 103 stations, which have already been prosecuted for 22 stations, terminated the broadcast service for 3 stations, and in the process of prosecution for 78 stations.
- Broadcasting law enforcement in cooperation with the Central Investigation Bureau for 117 stations.
- Regulating radio broadcasting stations by supervising, monitoring, and mediating the use of spectrum in broadcasting service for 86 stations.
- Monitoring the TV program for 61 channels and issuing notifications for improvement of not causing interference to other services for 2 stations, and having prosecuted on the offenders for Set-top Box for 3 cases with property in dispute for 1,649 Set-top Box.
- Settling the case under the Radiocommunications Act B.E.2498 (1955) for 2,817 cases. Details is shown in Chart 4.

*1, 2, 3, 4 The arrest and prosecution of the offender on the TV Transceiver*



No. of cases

Chart 4: Settling the Case under the Radiocommunications Act B.E.2498 (1955)

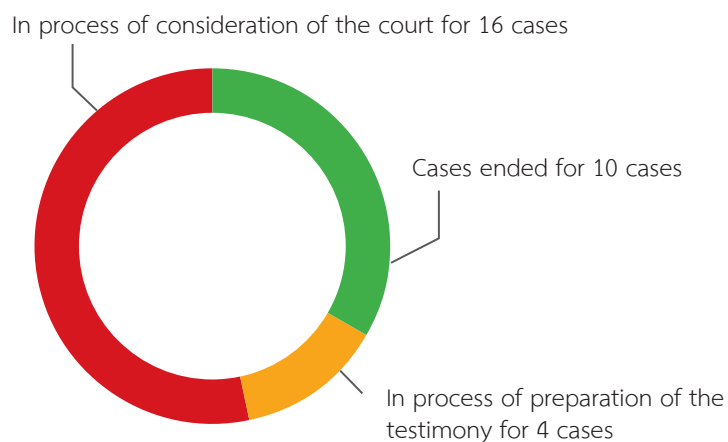


Source: Radiocommunications Licensing Bureau

Data as of November 2014

- Administrative proceedings from January 2012 - November 2014 are totally 30 cases as shown in Chart 5.

Chart 5: Proportion of Administrative Proceedings during January 2012 - November 2014



Source: Radiocommunications Licensing Bureau

Data as of November 2014



(2) The regulation on broadcasting services in the three southern provinces

- Having organized the meetings of the sub-committee continuously for considering the matters concerning notifications, criteria, measures or conditions on the broadcasting services, analyzing problems regarding broadcasting operation, follow-up, monitoring, and proposing guidelines or policies for broadcasting service regulation in the three southern provinces. The meetings called for documents and evidences and invited persons to provide information for the sub-committee's consideration, evaluation, and analysis of the problems situation, as well as to build up knowledge body in broadcasting service for supporting the resolution for conflict problems in the southern provinces. In 2014, four meetings of the sub-committee were held.
- Having organized 8 trainings under the project for enhancing knowledge and understanding of broadcasting operators in the three southern provinces so that they have obtained necessary and efficient knowledge for broadcasting operation such as issue of important theories for the analysis of Thai society, the application of theories for analyzing the situation of violence of the 3 southern provinces, so that the community radio stations and the main radio stations in the area are able to serve as a medium to disseminate information on culture and religion of the local people, and have not been used as a puppet for producing violence, and have understood the broadcasting laws.
- Implementing the research project on media and peace creation: the policy lesson for the South of Thailand, with the objectives to create understanding of rules and regulations in government media and the measure to create peace in the society after conflict in order to apply the recommendations and policies to the media in the South of Thailand. The important research issue is that how the media, media activists, and media regulator supported the negotiation between cultures and the stability of ethnic relations.
- Implementing the research project for setting up the model of broadcasting service in the 3 southern provinces, with the objectives to comparable studying of the problems of violence of the countries with conflict nature in society like the 3 southern provinces; which is to compare the situation with the situation in other countries such as the Republic of Rwanda, and the Aceh Province of the Indonesian Island of Sumatra, and gathering the information for making policies or policy recommendations so that Thailand has a model of media management especially in case of community radio broadcasting services, to solve the problems in the 3 southern provinces.





1 Training for building the understanding of the broadcasting operators for non-spectrum used services

- Research study on the enhancement of communication ability between cultures for the three southern provinces of Thailand, with the objectives to analyzing the change of media process and questioning on the difference of media in the society with the diversity of ethnic groups in Thailand, Malaysia and Myanmar, leads to pluralism/ international ideology of public area with a dissociation. An assessment will be done on the dissociation impact of being coordination center and a center of discussion in the context of ethnic diversity in order to identify the factors that are the leading factor in the integration of media and strengthening the international ideology. All factors will be used for designing training courses for community radio journalists in the South of Thailand in the future.
- Implementing the project for comparing content regulation in broadcasting and television services in order to compare the content regulation in broadcasting and television services to the prototype country who have been successful in the ethnic and religious conflict management which is similar to the three southern provinces.





1



2

(3) Having organized trainings for enhancing knowledge and understanding on laws and regulation of broadcasting and television services

- Five trainings for enhancing knowledge and understanding of the broadcasting operators for non-spectrum used services with the objectives to building knowledge and understanding on laws relevant to broadcasting or television services and the principle for a quality production of television media, and to exchange views and experiences among the trainees. Details is shown in Table 29.

1, 2 Network establishment on law enforcement in broadcasting and television services

**Table 29:** Trainings for Enhancing Comprehension of Operators who are granted the Broadcasting License for Non-Spectrum Used Services

No.	Dates	Venue
1	13 October 2014	Chon Buri
2	7 November 2014	Phuket
3	21 November 2014	Khon Kaen
4	28 November 2014	Bangkok
5	4 December 2014	Chiang Mai

Source: Radio Broadcasting Business Licensing Bureau



- 5 trainings on the network establishment on law enforcement in broadcasting and television services for enhancing knowledge and understanding of the laws relevant to broadcasting and television services and procedures for the investigation, search, arrest the offended radio broadcasting stations for the staff of the Office of NBTC and relevant organizations in order to establish a governmental network for the laws enforcement in broadcasting and television services. Details is shown in Table 30.

Table 30: Network Establishment on Law Enforcement in Broadcasting Services

No.	Dates	Venue
1	5 - 6 June 2014	Bangkok
2	18 - 20 June 2014	Ayutthaya
3	15 - 17 October 2014	Krabi
4	29 - 31 October 2014	Ubon Ratchathani
5	12 - 14 November 2014	Chiang Mai

Source: Radio Broadcasting Business Licensing Bureau

- Having organized 6 trainings on “knowledge enhancement on laws and criteria on broadcasting regulation for operators, public agencies and the general public” in Udon Thani, Songkhla, Chiangrai, Nakhon Phanom, and Suphanburi, with the objectives to build a right understanding in laws and regulations of broadcasting and television services. Details is shown in Table 31.





**Table 31:** Knowledge Enhancement on Laws and Criteria on Broadcasting Regulation for Operators, Public Agencies and the General Public

No.	Dates	Venue
1	19 July 2014	Surat thani
2	29 July 2014	Udon Thani
3	22 August 2014	Songkhla
4	12 September 2014	Nakhon Phanom
5	9 October 2014	Chiang Rai
6	21 November 2014	Suphan Buri

Source: Network, Facilities and Equipments for Broadcasting Business Licensing Bureau

1 Trainings on Knowledge Enhancement on Laws and Criteria on Broadcasting Regulation for Operators, Public Agencies and the General Public





### Strategy 3: Consumer Protection in Broadcasting and Television Services

This strategy is related to the operation on consumers' rights protection by taking into account of the human rights principles so that the consumers are prevented from being violated by operators of the broadcasting and television services under false pretenses, distortion, bias, unfair, or dominance or exploitation for the business advantages, as well as to promote the capability of people of being aware, stronger, protecting themselves, being able to access, understand and use the media efficiently for their own benefits. In 2014, the operation of the BC could be divided into 4 major dimensions: 1) issuance of notifications and guidelines for consumer protection in broadcasting and television services 2) enhancement of knowledge and understanding of consumers concerning consumer protection 3) consumer network establishment and promoting the conglomeration of consumers as well as having organized activities for consumer protection 4) complaint handling and management in broadcasting and television services.

#### 1) Issuance of Notifications and Guidelines for Consumer Protection in Broadcasting and Television Services

- (1) Formulating the (draft) Office of NBTC Notification on Guidelines for the Consideration of the Action which may Exploit the Consumers in Broadcasting and Television Services under Item 5(10) of the NBTC Notification regarding the Action which may Exploit the Consumers in Broadcasting and Television Services B.E.2555 (2012) in case of broadcasting or advertising by means of increasing volume to attract the attention of consumers, which affects on the consumers in a way of being forced to receive information, programs, or advertisement, or creating noise pollution without sufficient reasons. At the end of 2014, the draft notification has been in the process of being published in the Royal Gazette<sup>4</sup>
- (2) Setting up practical guidelines concerning the action which may exploit the consumers in broadcasting and television services
  - A guideline for the regulation of non-spectrum used television service (satellite and cable television) provision in the case of illegal advertisement of food, drugs, and health products. If the Office of NBTC has been reported by the Food and Drug Administration (FDA) that satellite TV service providers or cable TV service providers have broadcasted the illegal advertisement of food, drugs and health products, the BC will give the order to suspend the broadcasting of the station until the case has reached the absolute execution.

<sup>4</sup> Published in the Royal Gazette No.132, Special 2D, on 6 January 2014.



Besides, if it is found that the station has recidivated the broadcast, the station will be ordered to temporarily suspend for a period of not more than 30 days until the case has reached the absolute execution. The prosecution, however, could be absolute executed if a comparison of the prosecution is conducted and the person agrees to pay for the penalty or the court has a judgment of guilty.

- A guideline for resolving problems on illegal advertisement of food, drugs, and health products. If the Office of NBTC has been reported by the Food and Drug Administration (FDA) that satellite TV service providers or cable TV service providers have broadcasted the illegal advertisement of food, drugs and health products, the BC will give the order to suspend the broadcasting of the station until the case has reached the absolute execution. Besides, if it is found that the station has recidivated the broadcast, the station will be ordered to temporarily suspend for a period of not more than 30 days until the case has reached the absolute execution. The prosecution, however, could be absolute executed if a comparison of the prosecution is conducted and the person agrees to pay for the penalty or the court has a judgment of guilty.
- A guideline for resolving problems on illegal advertisement of food, drugs, and health products via radio and television broadcasting in areas of responsibility of tripartite: Provincial Health Office, the Regional Office of NBTC, and Citizen Network. The guideline focuses on the practice of monitoring and complaint filing, evidence gathering, business license inspection, advertisement and operation monitoring, regulation, and law enforcement.
- A (draft) practical guideline on the program broadcasting with the excess duration of advertisement of services or products as prescribed by law, or more often which has interrupted the continuation of program viewing of consumers.
- A (draft) practical guideline on the program broadcasting with advertisement of services or products in the program for children
- A (draft) practical guideline on the program broadcasting by showing text, messages, pictures, movies, light and sound about products or services including any other trademarks or other marks of business operators whether in the form of objects by setting the stage, props or filming location, or persons by wearing clothes or anything else, on commercial purposes (product or service placement for commercial benefit).



## 2) Enhancing knowledge and understanding of the public on Consumer Protection

The BC has conducted activities for enhancing knowledge and understanding of the public on consumer protection as shown in Table 32.

Table 32: Knowledge Enhancement on Consumer Protection

No.	Title	Dates	Venue
1	Seminar for the operators of broadcasting and television service on being compliance with laws concerning the advertisement of food and drugs.	24 October 2014	Phetchaburi
2	Press release on “Advertisement on Health products is illegal in the era of NCPO”, the project for establishing of consumer network in broadcasting and television services, and “the Forum on Cooperation of the broadcasting operators and the consumer network in broadcasting and television services for resolving the problem of illegal advertising of health products”.	5 November 2014	Bangkok
3	The consultation meeting on guidelines for the prevention of law violation that have an impact on consumers.	6 November 2014	Bangkok
4	Seminar on the law enforcement regarding the illegal advertisement of food, drugs, and health products for network association of Consumer Protection Police Division	20-21 November 2014	Nakhon Ratchasima
5	Meeting for consumer protection: the Advertisement of food, drugs, and health products of radio broadcasting stations that have been operating before the Broadcasting Business Act B.E.2551 (2008) becomes effective.	24 December 2014	Bangkok

Source: Broadcasting Consumer Protection Bureau

## 3) Consumer Network Establishment, promotion of conglomeration, and Activities for Consumer Protection

- (1) The Office of NBTC, in cooperation with the Foundation for Consumers, has promoted the establishment of consumer network in broadcasting and television services, supported the appointment of the consumer network leaders to organize activities for building knowledge and understanding of the public as media consumers, in 9 provinces 5 regions namely; Kanchanaburi, Phetchaburi, Khon kaen, Roi Et, Lampang, Surat Thani, Songkhla, Satun, and Bangkok. The network will monitor the advertising media on health products. Also, the press release was held on “Advertisement on Health products is illegal in the era of NCPO” on 5 November 2014.



- 1 Knowledge enhancement on consumer protection
- 2 The activity of network conglomeration of consumer protection, ethnic groups, and indigenous peoples

- (2) Promoting network conglomeration of consumer protection in broadcasting and television services (ethnic groups, and indigenous peoples) with the plan to building the strong conglomeration covering all groups and regions in 2015.
- (3) Having organized activities on consumer protection by organizing meetings/seminars in the topics related to Digital TV such as Seminar on “Brainstorming Views and Opinion of Consumers on Digital TV” on 27 March 2014, Seminar on “International Conference: Consumer Protection in the Digital Age” during 2-5 April 2014, Meeting on “Policy for Digital TV Coupon Distribution: in case of household groups outside the civil registration and the people with low income” on 4 November 2014, and Workshop for “Knowledge and Information Exchange on the Services on the Digital Terrestrial Television Network” on 23 December 2014, and so on.





- 1 Seminar on "International Conference: Consumer Protection in the Digital Age"
- 2 Meeting on "Policy for Digital TV Coupon Distribution: in case of household groups outside the civil registration and the people with low income"
- 3 Website on Consumer Protection of Radio Television Media
- 4 "Knowing Media, Knowing Rights"

- (4) Setting up the communication channel between the Office of NBTC and the consumer network of radio and television media including disseminating knowledge body to the public for enhancing media literacy through website <http://bcp.nbtc.go.th/>, [www.facebook.com](http://www.facebook.com) and newsletter for consumers "Knowing Media, Knowing Rights"



#### 4) Complaints Management and Recommendations in Broadcasting and Television Services

In 2014, the BC had considered complaints and recommendations related to the actions which may exploit the consumers such as the advertisement of food, drugs and health products, including the complaints resolving on program and content such as unfair service usage and service contract, the change of program channels on a subscription television without notice, etc.

- (1) Having considered complaints and recommendations related to the actions which may exploit the consumers in broadcasting and television services such as service provision, the advertisement of food, drugs and health products. In 2014, the BC had operated under the prescription of the main NBTC Notifications consist of the NBTC Notification on Determination of Procedures and Completion Time for the Consideration of Requests or Complaints in Broadcasting or Television Services, the NBTC Notification on the Actions which may exploit the Consumers in Broadcasting and Television Services B.E.2555 (2012), and the Office of NBTC Notification on Guidelines for the Consideration of the Action which may Exploit the Consumers in Broadcasting and Television Services under Item 5(10) of the NBTC Notification regarding the Action which may Exploit the Consumers in Broadcasting and Television Services B.E.2555 (2012).
- (2) Having considered complaints and recommendations related to TV programs and contents which is to consider under the Broadcasting Business Act B.E.2551 (2008). For more details, please see in Part 4 “Major Performance of the Office of NBTC”.

### Strategy 4: Promotion of Rights and Liberty to Communicate

In 2014, having conducted activities for promoting rights and liberty to communicate by focusing on information access and acknowledgement thoroughly and impartially in order to prevent the broadcasting operators from any action which may block or intervene the presentation of news or opinion, or being obstructed the right to know information or blocked channels for receiving a variety of information of people. This includes strengthening the public of media literacy so that people are able to choose media efficiently. The activities can be divided into 4 dimensions as follows: 1) formulation and revision of criteria concerning the rights and liberty to communicate 2) promoting access and utilization of radio and television media of the disabled, the elderly, and the underprivileged 3) strengthening media literacy for citizen, and 4) providing knowledge on promoting rights and liberty to communicate.



## 1) Formulation and revision of criteria concerning the rights and liberty to communicate

- (1) Having formulated the (draft) NBTC Notification on Criteria for Setting the Appropriate Levels of Television Programs B.E. .... in order to provide the public with fair and good quality of services, and promote the public to have universal access to television services including to be in line with the NBTC Notification on Criteria and Licensing Procedure for the Provision of Broadcasting or Television Network Services B.E.2555 (2012) Item 12 (25) which prescribed of the licensing conditions that the licensees must arrange the categories or orders of broadcasting or television services as set by the BC.
- (2) Formulating the (draft) NBTC Notification on Promotion and Protection of Rights of the Disabled to Access or Receive and Utilize the Television Programs B.E. .... so that the television operators provide the services for the disabled and the general public equally. Moreover, the BC has promoted the licensees who have provided the sign language interpreter, caption, audio description, and other services more than the conditions set in the basic measure, to be eligible person to apply for a promotion or financial support from the Fund or deducted from the revenue to be submitted to the Fund.

## 2) Promoting Access and Utilization of Radio and Television Media of the Disabled, the Elderly, and the Underprivileged

- (1) Setting up the project for encouraging the broadcasting and television services operators to provide the service for accessing to information of the disabled by signing memorandum on “Encouraging the Broadcasting and Television Services Operators to Provide the Service for Accessing to Information of the Disabled” which consisted of sign language, caption, audio description
- (2) Having organized activities for raising awareness of the rights to communicate of the disabled (hearing) during 7-9 November 2014 in Prachuab Kiri Khan
- (3) Having organized trainings for raising awareness of the rights to communicate of the disabled (intellect, autism, mental disorder) during 15-17 August 2014 in Prachuab Khiri Khan.



### 3) Strengthening Media Literacy for Citizen

- (1) Implementing project for developing and enhancing abilities of media literacy for citizen as follows:
  - Organizing activities on building mechanisms for strengthening radio and television media literacy by selecting the artists with good background whether in professional or behavior and be appropriate for being the representatives of new generation to promote the radio and television media literacy. Also, three activities for campaigning and promoting the media literacy had been held.
  - At the end of 2014, being in the process of producing creative media to enhance the consumers' capabilities in radio-television media literacy by setting up media production team from the winner team and other appropriate teams from short film competition on Media Literacy in 2013 in order to carry out the production of creative media under the theme and title set by the Office of the NBTC.
- (2) Implementing the project for developing mechanisms for radio and television media literacy of the public in order to promote skills on radio and television media literacy of the youth. The project had done by selecting academic institutes which were divided into two levels: secondary school and university levels, each level for 2 institutes per a region, totally 20 institutes from the Central, Northeastern, North, South and Bangkok. The project was implemented by organizing a meeting of representatives of each institute in order to set up the approach/model for co-operating activities, organizing training for enhancing skills of media literacy for the representative groups so that they can extend the knowledge obtained from the training to other students through various channels. This also included setting up processes and activities on the radio - television media literacy of the 20 pilot institutes by assigning the pilot academic institute to set up a group/club of the activity on "promoting radio-television media literacy skills" consisting of teachers, staff, and student/undergraduates who interested in attending the activities, which included the dissemination of information or media literacy activities through various channels in the institutes constantly, organizing activities for enhancing media literacy skills within the institutes at least once a semester. The pilot academic institutes have to organize meetings for presenting outcome and progress reports on the implementation of the project of each institute including exchanging knowledge and experiences, operating process so that they can apply the knowledge and experiences gained to develop their operating model more efficiently.
- (3) Establishing collaboration with academic institutes for developing study courses, and promoting media literacy of citizen by cooperating with 9 higher education institutions (in mass media) both from





the central and regional institution namely: Bangkok University, Rangsit University, Panyapiwat Institute of Management, Suan Dusit University, Nakhon Si Thammarat Rajabhat University, Nakhon Ratchasima Rajabhat University, Uttaradit Rajabhat University, Valaya Alongkorn Rajabhat University, and Ubon Ratchathani University, to develop the study courses on radio-television media literacy in dimension of media reform, programs and advertisement, etc.

- (4) Setting up the strategic plan on strengthening media literacy for democratic citizen: Thai model in which the Office of NBTC had organized meetings with the network members from public agencies, private sectors, civil society, and academic scholars, such as Faculty of Education, Chulalongkorn University; the National Institute for Child Development, Mahidol University; Academic Education Institute; Office of the Basic Education Commission; Media Monitor, Child Media Institution, Friedrich Ebert Stiftung Foundation, and Thai Civic Education for Democratic Citizen in Thailand, by organizing meeting forums for setting up approaches and models for formulating the workshop-driven strategies for media literacy and workshops on the Strategic Plan on Strengthening Media Literacy for Democratic Citizen: Thai Model.

#### 4) Provision of knowledge on promoting rights and freedom to communicate

- (1) Seminar on “Liberty of Mass Media: Challenging Role in the Age of Technology Convergence”, organized by the Office of NBTC, in cooperation with Thai Netizen, Media Foundation for Community Education, Friedrich Ebert Stiftung Foundation, Media Inside Out, and SEAPA, on 15 May 2014 in order to be a platform for exchanging

1, 2 Seminar on “Liberty of Mass Media: Challenging Role in the Age of Technology Convergence”





experiences in promoting rights and liberty of mass media and the role of media in the age of technology convergence under its responsibility to the society, as well as to establish relationship and exchange experiences between Thai mass media and foreign mass media concerning practical guidelines for media in current situation. The results of the seminar will help create a learning process in the work of media to the society and be useful for setting up the self-regulation of the operators, media professional organizations, and the Office of NBTC in the future.

- (2) Seminar on “Rights and Liberty and Ethics of Media and the Communication which Generates Conflicts in the Society” in order to be a platform for exchanging views between regulators, operators and consumers on the issues concerning the current act of media and the conflict happening in the society if it is related to each other, and discussing on the guideline for presenting information and news of mass media in the conflict situation under the liberty prescribed in the Constitution of the Kingdom of Thailand B.E.2550 (2007). The seminar was held on 26 February 2014 at the Office of NBTC.

### Strategy 5: Development of Broadcasting Quality of Operation

This strategy aims to promote and develop the quality of operation in broadcasting and television services which consisted of developing the quality of personnel, programs and operators in order to support the purpose of the Broadcasting Business Act B.E.2551 (2008) and the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010). In 2014, the strategy has been implemented in 3 main dimensions as follows: 1) promoting the conglomeration and the operation of professional organizations for setting up the ethical standards for the profession 2) promoting and developing the quality of the profession in broadcasting and television services, and 3) promoting and supporting the development of personnel in broadcasting and television services.

#### 1) Promoting the conglomeration and the operation of professional organizations for setting up the ethical standard for the profession

Setting up the (draft) NBTC Notification on Measure for promoting the conglomeration of the licensees, program producers, and mass media professional practitioners concerning broadcasting and television services in form of various organizations to be responsible for setting up the ethical standards for the profession and self-regulation of the vocation or occupation under the ethical standards. The conglomeration are 2 types; the first type is the specific conglomeration in which the group members consists of only licensees or program



1, 2, 3, 4 Promoting the conglomeration and the operation of professional organizations for setting up the ethical standards for the profession

producers or mass media professionals related to broadcasting and television services; the second type is the integrated conglomeration consists of licensees, program producers, or mass media professionals related to broadcasting and television services. The public consultation on the (draft) NBTC Notification was held on 30 June 2014 for gathering comments and suggestions from stakeholders, and the focus group meeting on the draft Notification was also held, in cooperation with 10 professional organizations on 24 September 2014.



## 2) Promoting and developing the quality of professional operation in broadcasting and television services

Having organized trainings for the development of the profession in broadcasting and television services by providing knowledge for enhancing skills and benefits for persons involving in the broadcasting and television services as follows:

- (1) Promoting the development of standards of broadcasting and television services by enhancing knowledge and understanding of the conglomeritic rights and duties of the broadcasting and television service operators in various forms, and improving channels for the exchange of knowledge, experiences and skills in the broadcasting and television operation in eight provinces as shown in Table 33.

**Table 33:** Promoting the Development of Standards for Broadcasting and Television Services

No.	Dates	Venue
1	16 - 17 January 2014	Nakhon Si Thammarat
2	6 - 7 February 2014	Ubon Ratchathani
3	20 - 21 February 2014	Kanchanaburi
4	6 - 7 March 2014	Rayong
5	20 - 21 March 2014	Chiang Rai
6	8 - 9 May 2014	Phetchabun
7	5 - 6 June 2014	Khon Kaen
8	26 - 27 June 2014	Bangkok

Source: Professional Broadcasting Institution Development and Universal Service Bureau





- (2) Promoting the development of standards of broadcasting and television services (phase 2) by promoting the participation of broadcasting and television service operators to be obtained the knowledge on laws, digital television switch over and community service, developing and promoting the responsibilities of operators to society, including enhancing the knowledge body of the broadcasting and television service operators for program production and the provision of community service with a good quality, proper service for the public benefits. Details is shown in Table 34.

**Table 34:** Promoting the Development of Standards for Broadcasting and Television Services (Phase 2)

No.	Dates	Venue
1	3 - 4 July 2014	Krabi
2	7 - 8 August 2014	Sa Kaeo
3	28 - 29 August 2014	Trang
4	4 - 5 September 2014	Roi Et
5	18 - 19 September 2014	Chiang Mai
6	2 - 3 October 2014	Sukhothai
7	6 - 7 November 2014	Ayutthaya

Source: Professional Broadcasting Institution Development and Universal Service Bureau

- (3) Promoting programs production to the local producers in broadcasting and television services (phase 1), by encouraging the participation of the local or community program producers in the production of programs according to the ethical standards which is appropriate to the target areas, and developing knowledge body on the production process of local or community program producers to be more efficient so that they can disseminate the programs in the community channels for broadcasting and television services in 5 provinces. Details is shown in Table 35.



Table 35: Promoting Program Production of Local Producers  
in Broadcasting and Television Services Phase 1

No.	Dates	Venue
1	20 - 22 August 2014	Chon Buri
2	10 - 12 September 2014	Khon Kaen
3	8 - 10 October 2014	Songkhla
4	15 - 17 October 2014	Chiang Mai
5	28 - 29 October 2014	Bangkok

Source: Professional Broadcasting Institution Development and Universal Service Bureau

1 Promoting programs production to the local producers in broadcasting and television services (phase 2)

2 Promoting programs production to the local producers in broadcasting and television services (phase 1)

3,4 Training on Professional Organizations Management



- (4) Having organized 4 trainings on professional organizations management, with 200 participants for each training. Details is shown in Table 36.

Table 36: Trainings on Professional Organizations Management

No.	Dates	Venue
1	15 - 16 October 2014	Ayutthaya
2	21 - 22 October 2014	Khon Kaen
3	29 - 30 October 2014	Songkhla
4	5 - 6 November 2014	Chiang Mai

Source: Professional Broadcasting Institution Development and Universal Service Bureau

1, 2, 3, 4 Developing potential and encouraging ethics of broadcasting and television services



- (5) Developing potential and enhancing ethics of broadcasting and television services operators in order to strengthen basic knowledge, develop and enhance the quality of program production, and promote the conglomerate of professionals in broadcasting service, as well as exchange knowledge body and experiences among each other. The knowledge gained from the trainings could be applied to the operation. Details of activities are as shown in Table 37.





**Table 37:** Activities for the Potential Development and Enhancing the Ethics of Broadcasting and Television Services

No.	Projects/Activities
1	The potential development of the radio broadcasting operators towards professionalism (6 trainings)
2	The development of news professionals in broadcasting and television services
3	The potential development of the Cable TV and Satellite TV operators to be professionals
4	Trainings on TV soap operas producers development
5	The development of advertisement in radio-television services under legal framework and ethics
6	Train the Trainer for developing potentials and enhancing ethics of speakers

Source: Professional Broadcasting Institution Development and Universal Service Bureau

- (6) Having implemented the project to study guidelines for the audience measurement with the objectives to study and setting up procedural guideline and plan for data collection regarding the audience measurement in the broadcasting and television services including guidelines, procedures and plans for setting up the information retrieving system for broadcasting and television services which is appropriate to the Thailand. The guidelines will be used as a standard for planning of data collection on media consumption constantly for the accuracy of the data collection and the development of a systematic and neutral standard which can be used for measuring the operation's efficiency and effectiveness of the spectrum-used broadcasting and television operators. The study also aims to seek basic information related to the current use of broadcasting and television services to be used for supporting the decision-making on formulating policies for a proper and fair regulation, as well as to enhance the understanding of a constant changing behavior of Thai population which is a consequence of technology and digital media. The study is expected to be completed in 2015.





### 3) Promoting and supporting personnel development in broadcasting and television services

In 2014, the Office of NBTC have implemented the NBTC Notification on Training and Testing for Announcers Certificate in the Broadcasting and Television Services B.E.2556 (2013), by having signed in the memorandum of agreement on the announcers training course with 22 organizations which are composed of 8 public academic institutes, 6 private academic institutes, and other organizations such as Public Relations Department, MCOT Public Company Limited, Royal Thai Army, Royal Thai Navy, and so on. The 48 trainings were held in the beginner level, 37 trainings in the intermediate level, and advanced levels, and 48 trainings were held in beginner level, 37 trainings were held in the intermediate level, and 41 trainings were held in advanced level, the participants who passed the trainings in each level were 3,290, 1,621, and 2,080 participants, respectively.

Moreover, according to the Notification, the Office of NBTC had conducted the testing for announcers certificate in the broadcasting and television services in 2014 in which the person who can take part in the testing must pass the advanced level of the training for announcers certificate in the broadcasting and television services. Details is shown in Table 38.

**Table 38:** Number of Testing Attendees for Announcer Certificate in Broadcasting Services in 2014

No.	Venue	No. of Applicants	No. of Testees	No. of Passers
1	MCOT Public Company Limited, Bangkok	276	228	100
2	MCOT Public Company Limited, Bangkok	204	180	93
3	Maejo University, Chiang Mai	142	117	48
<b>Total</b>		<b>622</b>	<b>525</b>	<b>241</b>

Source: Professional Broadcasting Institution Development and Universal Service Bureau



1 The testees for announcers certificate in the broadcasting and television services in 2014



## Strategy 6: Digital Broadcasting and Television Switch Over

This strategy has aimed to switch over the broadcasting and television transmission to digital system for the efficient use of spectrum according to Section 27 (5) and for ensuring that the citizen of no less than 20 percent are able to use the spectrum in broadcasting and television services under Section 49 and 85 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication Services B.E.2553 (2010).

In 2014, the Office of NBTC had implemented the strategy in 8 areas as follows:

1) formulating radio frequency plan for digital terrestrial television services and plan for the commencement of mobile television transmission 2) having conducted activities related to the provision of digital terrestrial television services 3) provision of digital terrestrial television network service 4) implementation of the project for supporting the public in the digital terrestrial television switch over 5) setting up the system for monitoring digital TV service area 6) preparedness for the commencement of digital radio broadcasting transmission 7) setting up standards and desirable technical characteristics for broadcasting and television services, and 8) establishing collaboration, knowledge, understanding, coordination, and publicity concerning the digital radio and television signal transmission.

### 1) Formulating radio frequency plan for digital terrestrial television services and plan for the commencement of mobile television transmission

- (1) Having issued the NBTC Notification on Radio Frequency Plan for Digital Terrestrial Television Services (No.2) B.E.2557 (2014) and being in the process of formulating the Plan for the Commencement of Mobile Television Transmission by conducting studies and gathering information for the preparation of the feasibility study of the mobile television transmission project which is in cooperation with the International Telecommunication Union (ITU) under the “Project on Development of a Roadmap for Mobile TV Broadcasting Deployment and Regulation in Thailand”, and having discussed with telecommunications operators, digital television service operators, and digital television network service operators for the preparation of the commencement of mobile television transmission. More information in details have already been mentioned in Part 2: Mission and Major Projects in 2014”.



- (2) Having discussed with telecommunications operators, digital television service operators, and digital television network service operators for the preparation of the commencement of mobile television transmission. Details is shown in Table 39.

**Table 39:** Consultation Meeting with Operators to set up the Commencement Plan for Mobile TV

Companies/Organizations	Dates	Venue
True Corporation Public Company Limited	15 October 2014	True Tower
TOT Public Company Limited	17 October 2014	TOT Building
Cat Telecom Public Company Limited	22 October 2014	CAT Telecom Building
MCOT Public Company Limited	24 October 2014	MCOT Building
GMM Grammy Public Company Limited	27 October 2014	GMM Grammy Building
Samart Public Company Limited	29 October 2014	Software Park
Thai Public Broadcasting Service	30 October 2014	TPBS Building
Total Access Communication Public Company Limited	31 October 2014	DTAC Building

Source: Broadcasting Technology and Engineering Bureau

## 2) Provision of digital terrestrial television services

- (1) For the licensing to use spectrum for the provision of digital television services, in 2014 the Office of NBTC has issued notifications as follows:
- The Office of NBTC Notification on Results of the Spectrum Auction for the Provision of Digital Television Services, Category of National Commercial Service, dated 6 January 2014.
  - The Office of NBTC Notification on Results of the Selection of Numbering Order of the Provision of Digital Television Services, dated 29 January 2014.
- (2) Having prepared on the licensing to use spectrum for the provision of digital television services, Category of Public Service Type 3, with the main objective to disseminate information to promote a better understanding between the government and the public, and between the parliament and the public as follows:



- Having received the licensing application to use spectrum for the provision of digital television services, Category of Public Service Type 3, during 21 - 25 April 2014.
- Preparing analysis report of the appropriateness for the licensing to use spectrum for the provision of digital television services, Category of Public Service Type 3, and proposed to the BC meeting.

### 3) Provision of digital terrestrial television network services

In 2014, the Office of NBTC had done activities concerning the provision of digital television network services as follows:

- (1) Having arranged the trial broadcasting of digital terrestrial television (DVB-T2) service by MCOT Public Company Limited and the Public Relations Department in areas of Bangkok, Khon Kaen, Lampang, Sukhothai, Phuket and Chiang Mai, for being used as technical information for the installation of radio stations for the provision of digital terrestrial television network services, including signal connectivity to support the broadcasting of digital terrestrial television with DVB-T2 standard.
- (2) Having arranged the technical trial of signal connectivity of broadcasting on digital terrestrial television network of the Royal Thai Army, MCOT Public Company Limited, Thai Public Broadcasting Service, and TC Broadcasting Company Limited, for the preparedness and prevention of technical problems which may arise in the official provision of service during 1 - 24 April 2014.



1 Results of the Selection of Numbering Order of the Provision of Digital Television Service, Category of National Commercial Service





- (3) Moreover, the Office of NBTC has set up the installation plan of radio-communications stations for the provision of digital terrestrial television network service as shown in Table 40.

**Table 40:** Radiocommunications Installation Plan for the Provision of Digital Terrestrial Television Network

1 <sup>st</sup> year		
No.	Commencement Dates	Radiocommunications Installation Plan (Main stations)
1	1 April 2014	Bangkok, Nakhon Ratchasima, Chiang Mai, Songkhla
2	1 May 2014	Ubon Ratchathani, Surat Thani, Rayong
3	1 June 2014	Sing Buri, Sukhothai, Khon Kaen, Udon Thani
2 <sup>nd</sup> year		
No.	Commencement Dates	Radiocommunications Installation Plan (Main stations)
1	1 August 2014	Roi Et, Chiang Rai, Sa Kaeo, Nakhon Sawan
2	1 October 2014	Nakhon Si Thammarat, Phuket, Trang, Surin
3	1 December 2014	Sakon Nakhon, Lampang, Nan, Phetchabun, Prachuap Khiri Khan
4	1 February 2015	Kanchanaburi, Chumphon, Trat, Mukdahan, Tak
5	1 April 2015	Mae Hong Son, Ranong, Loei, Chaiyaphum, Phrae
6	1 June 2015	Satun, Uttaradit, Bueng Kan, Si Sa Ket, Yala

Source: Digital Broadcasting Bureau

Also, the radiocommunications stations installation plan for the provision of digital terrestrial television network service in area of Klai Kangwon Palace was set up in form of supporting station in Hua Hin, with its schedule to officially launch the service on 1 June 2014.

- (4) Following-up the implementation of digital terrestrial television network expansion.
- According to the conditions attached to the license prescribing of the plan for radiocommunications installation for the provision of digital terrestrial television network service which was in line with the NBTC Notification on Additional Criteria and Licensing Procedures for the Provision of Spectrum-used Terrestrial Television Network Service B.E.2556 (2013), the Office of NBTC had followed up the radiocommunications installation and the operation by using a mechanism of working group to follow up and monitor the expansion of digital terrestrial television network.



In addition, the BC has set up measures to regulate the operation for the provision of digital terrestrial television network service. From the follow-up of the network expansion operation of all service providers, it was found that some service providers, were unable to install the radiocommunications stations for providing the service as prescribed in the conditions. The BC Meeting, therefore, has its solution to apply administrative measures on the television service providers who were unable to install the radiocommunications stations. Also, the BC has issued the administrative measure to be applied in the case related to problems/obstacles in the provision of digital terrestrial television network services as well.

- In 2014, the Office of NBTC has carried out the monitoring and measuring the level of signal strength of the digital terrestrial television broadcasting stations and technical parameters. Details are shown in Table 41 and 42.

1 Visit to  
radiocommunications  
station for the  
provision of digital  
terrestrial television  
network service



**Table 41:** Monitoring and Measuring the Signal Strength of Digital Terrestrial Television Stations to ensure that the People throughout the country are able to watch TV programs

No.	Dates	Venue
1	6 August 2014	Digital terrestrial television stations in Nakhon Sawan and Sing Buri
2	4 November 2014	Digital terrestrial television stations in Phuket

Source: Digital Broadcasting Bureau

- In addition, the monitor and measurement of signal strength of digital terrestrial television stations have been carried out for technical problem assessment and resolution. Details are shown in Table 42.

**Table 42:** Monitoring and Measuring the Signal Strength of Digital Terrestrial Television Stations for Technical Problem Assessment and Resolution

No.	Dates	Venue
1	14 October 2014	Suphan Buri
2	28 October 2014	Bai Yok Building 2, Bangkok
3	17 December 2014	Point 1 PTT Petrol Station area, Suwinthawong road, Bangkok Point 2 Klong Chao Temple, Bang Nam Piao District, Chachoengsao Point 3 Wat Khok Ploh, Phanat Nikhom District, Chon Buri Point 4 Don Dumrongtham temple , Mueang Chon Buri District, Chon Buri Point 5 Bang Poo Recreation Center, Samut Prakan
4	23 December 2014	Point 1 Rattanakosin Village, Pathum Thani Point 2 In area behind BIG C, Ayutthaya Point 3 Sena, Ayutthaya Point 4 Lat Bua Luang, Pathum Thani Point 5 Leng Nei Yee 2 temple, Nonthaburi Point 6 The Emerald Village, Nonthaburi
5	24 December 2014	Point 1 In area behind Nakhon Pathom Hospital, Nakhon Pathom Point 2 Wattanavej Hospital, Ratchaburi Point 3 Nong Ree Temple, Ratchaburi Point 4 Hua Pho, Ratchaburi Point 5 Don Hoi Lot, Samut Songkhram Point 6 Rama 2, Samut Sakhon

Source: Digital Broadcasting Bureau



#### 4) Implementation of the project for supporting the public in the digital terrestrial television switch over

To enable the implementation of the Broadcasting Master Plan No.1 (2012-2016), Strategy on the transition to digital broadcasting switch over in term of supporting the public to access to the digital terrestrial television service to meet the tangible outcome and achieve maximum efficiency and effectiveness as well as to support the transition to digital broadcasting switch over, the Office of NBTC has established a project for supporting the public in the digital terrestrial television switch over with an important principle to encouraging the public in to switch over to digital terrestrial television. The project will be implemented in the form of distributing digital TV coupon to the public by using money received from the spectrum auction for the provision of digital television services, in category of national commercial service. In 2014, the Office of NBTC has carried out main activities as follows:

- (1) Having prepared the principles to support the public for the transition to digital terrestrial television switch over
- (2) Having organized 4 public hearing meetings to the implementation of the project for supporting the public in the digital terrestrial television switch over which is in line with Section 28 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010). Comments or views were proposed in written and sent to the Office of NBTC via e-mail, fax, in-person submission, and postal service. Details is shown in Table 43.





Table 43: Public Hearings on the Projects for Supporting the Public in the Transition to Digital Terrestrial Television

	Region	Date	Venue
1	North	4 July 2014	Chiang Mai
2	South	5 July 2014	Songkhla (Hat Yai)
3	Northeastern	8 July 2014	Khon Kaen
4	Central	10 July 2014	Bangkok

Source: Digital Broadcasting Bureau

Moreover, the focus group meeting were held on 9 July 2014 for gathering views and comments on specific issues on “the concept for setting the value of coupons that take into account the consumers protection and the public interests” under the project for supporting the public in the digital terrestrial television switch over. After the public hearings, the Office of NBTC had proposed the approach for implementing the project for supporting the public in the digital terrestrial television switch over to the National Council for Peace and Order for their approval (via the Committee for Follow-up and monitor governmental budget expenditure) to distribute the 690 baht digital TV coupon to the public.

- (3) Having conducted the demonstration of redeeming digital TV coupons at the service points or shops on 8 October 2014 so that the mass media could try redeeming the coupon for the Set-top Box or use the coupon as a discount on the purchase of a digital terrestrial television set or iDTV, including the demonstration of working flow of the shops from the beginning of the redeeming process, at the Office of NBTC.
- (4) Having delivered the digital TV coupons to the Thailand Post Company Limited so that the company distributed the coupons to the public. More details have been presented in Part 2: Mission and Major Projects in 2014.



## 5) Setting up the system for monitoring digital TV service areas

To provide knowledge and information to the public on digital terrestrial television network service in 39 main stations across the country including the information on digital TV coverage areas, for the use of finding the right direction for installing antennas for the reception of digital television signal, in the first quarter of 2014, the Office of NBTC has developed a system to monitor digital TV service area, which is under the project for the development of Geographic Information Systems (GIS) for broadcasting and television services, phase 2. The information used in the project is based on the information gathering from propagation model and technical information of network service providers have been used. In addition, the monitoring system has been developed for providing channel for the public to share their views and suggestions, and problems arising from viewing digital TV to the Office of NBTC as well. More details have been presented in Part 2: Mission and Major Projects in 2014.

## 6) Preparedness for the introduction of digital terrestrial radio services

- (1) Apart from having carried out the activities in part of digital terrestrial television as mentioned above, the BC has prepared the readiness for the transition to digital radio broadcasting switch over. In 2014, the memorandum of understanding on the cooperation in the trial of digital radio broadcasting had been signed with 8 public agencies and private sector. More details have been presented in Part 2: Mission and Major Projects in 2014.
- (2) Setting up the roadmap for the introduction of digital terrestrial radio services
  - Having joined the members of World DMB Forum 2014 for gathering information to be used in the formulation of policies and the roadmap for the introduction of digital terrestrial radio services including the conclusion of the trial operation of the digital radio broadcasting transmission of member countries.



1 Having joined the members of World DMB Forum



1, 2 Survey on the operation of radio broadcasting stations in the North region

- Having conducted the survey on the operation of radio broadcasting stations in the North region which are under the Royal Thai Army network, for the preparedness of the formulation of the roadmap for the introduction of digital terrestrial radio services, and gathering problems and obstacles in the operation of radio broadcasting stations in each region including the data survey on behavior of the public in listening to radio nowadays in Chiangmai, Lamphun, and Lampang, during 10-12 March 2014.
- The Office of NBTC had held a meeting with the Sub-committee on Public Service, Community Service, and Commercial Service, No.2/2014 on 10 June 2014 at the Sukosol Hotel, Bangkok, to discuss and approve the draft Broadcasting Development Plan, and having set up some part of guidelines for the introduction of digital terrestrial radio services.
- Preparing the study report of the roadmap for the introduction of digital terrestrial radio services in Thailand which consisted of the followings:
  - The trend of broadcasting services situation in Thailand
  - The characteristics of digital radio broadcasting transmission
  - Digital broadcasting services situation in foreign countries
  - Overall information on technology
  - Strategy on the introduction of digital terrestrial radio services



- (3) For the spectrum value evaluation for digital terrestrial radio services, the Office of NBTC had signed in memorandum of cooperation with Chulalongkorn University for the advice on the evaluation of spectrum value in the digital broadcasting and television services, on 20 August 2012 in order to foster the cooperation in setting appropriate spectrum value in the digital broadcasting and television services and reflecting the economic and technical value which is in accordance with international principles, transparent, comparative, and most beneficial to the industry and consumers. The study was done by studying guidelines or methods used in foreign countries and comparing criteria and approaches of those countries to the environment of Thailand for the most appropriate criteria and methods of spectrum value evaluation of Thailand. At present, the Chulalongkorn University has been in the process of preparing the study report on setting minimum price for the spectrum auction in digital radio terrestrial services.

#### 7) Setting up standards and desirable technical characteristics for broadcasting and television services

- (1) In 2014, having established a guideline framework for technical considerations related to the licensing of radiocommunications stations for digital terrestrial television network which included rules on facilities sharing for all networks as well as other areas of considerations, such as the installation of supporting stations for portable indoor gap filler and effective radiated power (ERP) which has been approved by the BC meeting.
- (2) Having set up the rules on Packet Identifier (PID) of television service and digital terrestrial television network service in which the packet identifier of each service was changed on 30 September 2014 from 02.00-05.00 am., and the users have been informed in advance via news ticker in regular programs since 22 September 2014.
- (3) Having set the process of applying for system software update for the manufacturers, importers and suppliers of digital terrestrial television set which have been approved by the BC meeting.

#### 8) Establishing collaboration, knowledge, understanding, coordination, and publicity concerning the digital radio and television signal transmission

To support the transition to digital broadcasting switch, in 2014, the Office of NBTC had conducted activities as follows:





1 Seminar on Digital  
Radio Network

2 Seminar on DAB  
Technology and  
System Architecture

(1) Building collaboration, knowledge and understanding, coordination on the transition to digital radio and television broadcasting switch over.

- Attending the Radio Asia Conference 2014 during 21 - 25 May 2014 in Sri Lanka for studying and preparing for the formulation of the roadmap for the introduction of digital radio terrestrial services.
- Organizing the Seminar on Digital Radio Network for preparing on the transition to the digital radio terrestrial services, and preparing knowledge concerning digital radio technology for the staff of the Office of NBTC and related organizations on 7 November 2014 at the Office of NBTC.
- Organizing the Seminar on DAB Technology and System Architecture in order to enhance basic knowledge concerning digital radio technology and system architecture for the staff of the Office of NBTC, broadcasting operators, audio manufacturers, car manufacturers, and other related organizations on 26 November 2014 at the Office of NBTC.
- Having organized the training on “Audio Codec Technology for Digital TV Broadcasting in Thailand” on 25 August 2014 in which the lectures were given by international speakers in order to enhance knowledge and understanding in audio codec technology which will be useful for the program production, developing audio signals in digital system, and expanding to other developments related to digital broadcasting television services.



3 The 13<sup>th</sup> ASEAN Digital Broadcasting (ADB) Meeting

4, 5 Training on "Audio Codec Technology for Digital TV Broadcasting in Thailand"

- Attending the 13<sup>th</sup> ASEAN Digital Broadcasting (ADB) Meeting during 25 - 26 August 2014 in York Jakarta, Indonesia in order to report the progress of the transition to digital television switch over of Thailand, and join the working group to set up guidelines and proposals on policy and technical aspects for the transition to digital television switch over of ASEAN countries which will be presented to the ASEAN Ministerial Meeting on Information.
- Attending the ITU-D Study Group 1 Meeting on "Enabling Environment for the Development of Telecommunications/ ICTs" during 15 - 19 September 2014 at the ITU Headquarters in order to join the formulation of guidelines for the transition to digital television switch over.





1,2,3 Seminar on “NBTC/ITU National Seminar on Thailand Digital Terrestrial TV Broadcasting Roll Out”

- Having organized the “NBTC/ITU National Seminar on Thailand Digital Terrestrial TV Broadcasting Roll Out” on 4 December 2014 in order to pass on knowledge and build understanding on the process of terrestrial television broadcasting roll out of Thailand. The participants to the seminar were composed of digital television broadcasting operators, industrial groups, scholars, and interested persons including the executives and staff of the Office of NBTC.
- Organizing the “NBTC/ITU Workshop on Roadmap for Introduction of Digital Terrestrial Radio Services in Thailand” on 16 December 2014 to enhance knowledge and understanding in digital terrestrial radio services. The participants to the workshop, totally 200 participants, consisted of radio broadcasting operators from 33 public agencies and private sector, scholars from 18 academic institutes, 20 manufacturers, and other interested persons including the executives and staff of the Office of NBTC. The workshop was a technical cooperation with International Telecommunication Union (ITU) for implementing the project for the





recruitment of experts to set up plans for the transition to digital broadcasting switch over, under the “Project on Roadmap Development for Digital Terrestrial Radio Broadcasting Roll Out in Thailand”. The main issues raised in the workshop by the ITU experts were Transition from Analogue to Digital Terrestrial Radio Broadcasting, DAB Global Developments, Digital Radio Options for Thailand, and DAB Network architecture and System Equipment.

- Organizing the workshop for the licensees for the provision of digital terrestrial television network services in order to seek understanding on procedure and methods of radiocommunications licensing and radio frequency planning, on 18 March 2014 at the Office of NBTC.
- Organizing training for the manufacturers and importers of the iDTV and Set Top Box, and modern trade on 30 April 2014 at the Office of NBTC.
- Organizing the workshop on “the technical guidelines for the provision of digital terrestrial television services, on 24 December 2014. The participants to the workshop consisted of the representatives of the Office of NBTC, the working group on technical aspects for digital terrestrial television services, representatives of the licensees for the provision of digital terrestrial television network services, and representatives of the licensees for the provision of digital television services. The objectives of the workshop were to raise up the awareness and enhance understanding of the licensees on technical guidelines for the provision of digital terrestrial television services to be in the same direction.

*1 The workshop on “NBTC/ITU Workshop on Roadmap for Introduction of Digital Terrestrial Radio Services in Thailand”*







1, 2 Workshop on “the technical guidelines for the provision of digital terrestrial television services”

- Providing information in various activities, such as the Seminar on “Digital TV, What can the Consumers (the Deaf) get?” on 20 April 2014 at the Office of NBTC in which the Office of NBTC, in cooperation with the Bangkok Deaf Association, had held for protecting consumers in broadcasting and television services, particularly the deaf, to understand and prepare for the transition to digital TV switch over; the seminar on “Digital TV” on 12 June 2014 at the Faculty of Communication Arts, Chulalongkorn University; the Seminar and Academic Exhibition on “Towards the Era of Digital Television” on 17 June 2014 at the Faculty of Engineering, Chulalongkorn University, etc.
- Building knowledge of academic institutes on the transition to digital television switch over and establishing the public relations network as follows:
  - Chiang Mai Rajabhat University: titled “the transition to digital television switch over”, on 18 September 2014 and 9 November 2014.
  - Thammasat University: titled “Role of the Office of NBTC as the Regulator” on 4 November 2014.
  - Pathumthani University: titled “The Biggest Change of Thai TV Media, Analog to Digital TV, What would happen?” on 18 November 2014.
  - Rajamangala University of Technology Tawan-ok: Chakrabongse Bhuvanarth Campus: titled “From HD Screen to Digital TV” on 22 November 2014.



- Royal Air Force College, Education Department of the Air Force: titled “The Preparedness of Television Development, From Analog to Digital System” on 3 April 2014.
  - Providing information on the area coverage of digital TV coupons distribution in the meeting of the head of public agencies in provincial level such as Chiang Mai, Chon Buri, etc.
  - Organizing the meeting with entrepreneurs of real estates, condominium and Land Department to support the transition to digital television switch over for the users in condominium, on 6 November 2014 at the Office of NBTC.
- (2) Disseminating information on the transition to digital terrestrial television switch over in order to ensure the efficiency of the transition to digital terrestrial television, and the public has been informed of information relevant to digital TV. In 2014, the office of NBTC had conducted activities as follows:
- Having coordinated and supported the broadcasting of advertisement of digital TV through television stations such as publishing news ticker and 30-second spot advertisement via television stations, and the 45-second advertising movie on “Digital TV Coupons, All Homes Viewing”.
  - Conducting exhibition on Digital TV in the seminar on “59 years of Thai Television: from Analog to Digital TV” at the Public Relations Department Auditorium, Bangkok , on 24 June 2014. The participants to the seminar consisted of representatives of television stations, mass media, government officials of the Public Relations Department, etc.

1, 2 The Office of NBTC had provided information on the coverage areas of Digital TV distribution





1, 2, 3, 4 Digital TV  
Road Show

- Organizing Digital TV Exhibition in the occasion of the 24<sup>th</sup> Anniversary of National Broadcasting Services of Thailand during 11 - 13 July 2014 at the National Broadcasting Services of Thailand, Bangkok.
- Organizing Digital TV Road Show for disseminating information to the public on the viewing, devices and equipment, service areas, program content, demonstration channel for TV viewing. Details is shown in Table 44.

Table 44: Digital TV Road Show

No.	Dates	Venue
1	27 July 2014	The Mall Korat, Nakhon Ratchasima
2	20 - 24 August 2014	The Central Festival Chiang Mai
3	29 - 31 August 2014	Big C Extra Hat Yai, Songkhla

Source: Digital Broadcasting Bureau





## Strategy 7: Development of a Management System to Become an Efficient Regulating Organization

In 2014, having developed the management system to become an efficient regulating organization and following-up and evaluating the progress of implementation under the Broadcasting Master Plan No.1 (2012 - 2016), and the human resources development of the Office of NBTC in the broadcasting affairs department as follows:

### 1) Following-up and Evaluation on the Progress Implementation of the Broadcasting Master Plan No.1 (2012 - 2016)

The following-up and evaluation on the progress implementation of the Broadcasting Master Plan have to be done periodically and constantly in order to gather information for being used in the improvement of the implementation in the rest period of time of the Master Plan for the achievement of the goals. Each period of the follow-up may be adjusted or added some work models according to the context to be appropriate to the situation. In 2014, the progress of implementation is as follows:

- (1) The preparation of the book, “Manual for Following-up the Radio-Television Master Plan, the NBTC, Direction of Thai Radio-Television Media” so that the interested parties and the general public are able to understand the core content of the Master Plan, and targets in a given time so that they are able to follow-up, monitor or provide views or recommendations to the operation of the NBTC and the Office of NBTC on the basis of understanding of the Master Plan. The books had been designed in the form that help facilitate the access to content of the public.

1, 2, 3 Visit to the digital terrestrial television stations in category of national commercial services







- (2) The following-up and evaluation in the form of a visit to digital television broadcasting stations who won the auction in type of national commercial service in order to acknowledge of the operation and problems may arise and gather those information for resolving in further action. Details is shown in Table 45.

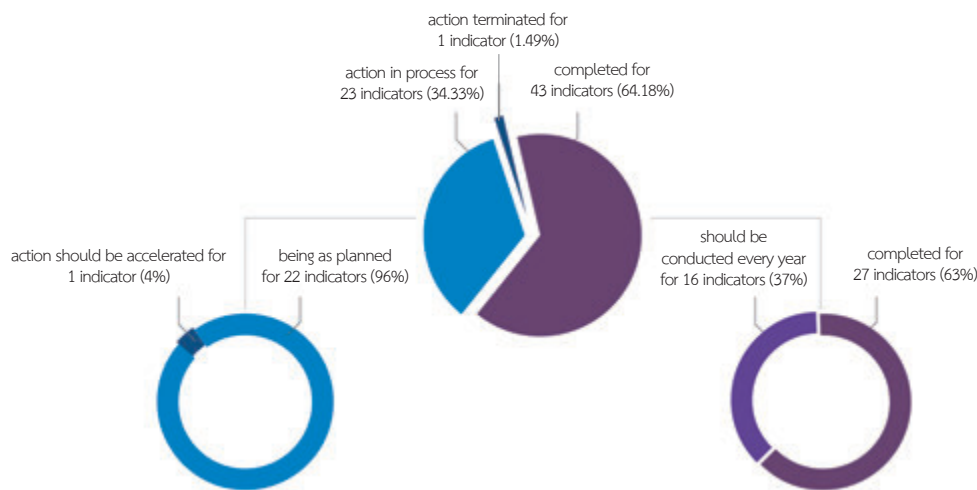
**Table 45:** Visit to Digital Terrestrial Television Station that provide the service in Category of National Commercial Service

No.	Operators	Dates
1	Spring News Television Company Limited	8 September 2014
2	NBC Next Vision Company Limited	9 September 2014
3	Voice TV Company Limited	10 September 2014
4	Thai TV Company Limited	20 November 2014
5	Triple V Broadcast Company Limited	20 November 2014
6	Mono Broadcast Company Limited	21 November 2014
7	Bright TV Company Limited	18 December 2014
8	DN Broadcast Company Limited	23 December 2014

- (3) Following-up and evaluation on the progress implementation of the Broadcasting Master Plan No.1 (2012 - 2016), which consisted of 67 indicators as details shown below:
- 43 completed implementing indicators, which can be divided into 27 indicators that were implemented completely in the given time of the Master Plan, and 16 indicators that need to be carried out in time series.
  - 23 in process implementing indicators, which can be divided into 22 indicators that were implemented on time of the given period of the Plan, and 1 indicator that need to be speeded up the operation.
  - 1 indicator that need to terminate the implementation due to external factor. Details is shown in Chart 6.



**Chart 6:** Progress of Implementation in the Year 2014 under the Broadcasting Master Plan



Data as of 18 February 2015

Source: Broadcasting Corporate Affairs Bureau

- (4) Preparing the report on “Changeable Circumstance of the Media, the Result from the Implementation of the Broadcasting Master Plan No.1 (2012 - 2016), which emphasized on qualitative analysis for evaluating the results after the implementation of the Master Plan if it has caused the structural changes in terms of generating benefits to broadcasting and television services or not, if so, in what dimension.

The implementation on broadcasting and television services as prescribed by the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010), has started in the initial stage (2012 to 2014) which is 3-year period. Therefore, in 2014 the Office of NBTC has carried out the activities for enhancing capabilities and build up knowledge body in regulating the broadcasting and television services. The activities also included the development of human resources constantly by reducing the gap from the result of personel performance evaluation through setting up a serie of training courses that can meet the purpose of the Individual Development Plan (IDP).

(4.1) Training course series for skills development which will help improve the operational efficiency (skill-based) such as

- Training course for developing communications, and leading the corporate to become an excellent organization.
- Training course on skills for solving problems and decision-making.
- Training course on the development of systematically thinking.



(4.2) Training course series for providing knowledge on the contents under the strategy (knowledge-based), such as

- a. Training course on regulating program content
- b. Training course on competition regulation in broadcasting and television services.



1 Follow-up and Evaluation on the Progress of Implementation under the Broadcasting Master Plan No.1 (2012 - 2016)



## Major Performances of TC

The Telecommunications Commission (TC) has implemented important activities under the Strategies of Telecommunications Master Plan No.1 (2012 - 2016) which consisted of 6 Strategies as follows:

### Strategy 1: Developing and Promoting Free and Fair Competition

The Strategy 1 has focused on regulating telecommunication business in a fair basis in the market where monopoly or restriction of competition exists, in either national and local levels by emphasizing on the prevention of the abuse of the market power by the incumbents or the dominant operators. This strategy is to push forward the free competition and enable the general public to use telecommunications services in a reasonable and fair price. In 2014, the TC had performed the tasks under the strategy as follows:

#### 1) Develop, review or improve rules and criteria which may be the barriers to free and fair competition in telecommunications services

- Having issued the NBTC Notification on Market Definition and Scope of Relevant Telecommunications Market B.E.2557 (2014) in order to designate the market in telecommunications market upon current situation for being used in the assessment of competitive conditions and determine specific measures in advance. This will be the prevention of the acts of monopoly or abuse of the market power by the licensees of telecommunications services with significant market power (SMP) and consistent with the principle of free and fair competition, as well as supporting the development of the telecommunications industry. The Notification has been published in the Royal Gazette on 18 September 2014.



1 Public Hearings Meeting on the (Draft) NBTC Notification on Reference Rate of Telecommunications Network Interconnection B.E. ....





- Having issued the NBTC Notification on Criteria and Process of Consideration of the Designation of the Market Dominance in Telecommunications Services B.E.2557 (2014) in order to be used as a ex-ante regulatory measures by preventing the operator with significant market power from using their power to reduce or restrict the competition in the market. The Notification is in line with the principle of promoting free and fair competition, and measures for preventing the acts of monopolies or leads to unfair competition in the telecommunications services. The Notification has been published in the Royal Gazette on 18 September 2014.

## 2) Develop or improve rules and regulatory criteria which promote the free and fair competition in telecommunications business

- Having issued the NBTC Notification on Reference Rate of Telecommunications Network Interconnection B.E. .... in order to support the regulatory guideline and determination of the telecommunication network interconnection rate which is fair to the telecommunications users and for the utmost benefit of the general public under the NTC Notification on the Calculation Standard of the Telecommunication Network Interconnection Rate which had been published in the Royal Gazette on 23 July 2014. Details is shown in Table 46.

**Table 46:** Telecommunication Network Interconnection Rate

Type of Service	Telecommunication Network Interconnection Service	Reference Rate in case of Dispute (2010)	Temporary Remuneration Rate for the licensees to use spectrum in band of 2.1 GHz (2013)	Reference Rate in 2014	
				23 July 2014 - 30 June 2015	1 July 2015 - 30 June 2016
Mobile Phone	Call Origination	0.50	0.45	0.45	0.34
	Call Termination	0.50	0.45	0.45	0.34
	Call Transit	0.20	0.06	0.06	0.04
Fixed Telephone	Call Origination	0.49	-	0.45	0.34
	Call Termination	0.36	-	0.45	0.34
	Call Transit	0.08	-	0.16	0.16

Remarks: unit baht/minute

Source: Telecommunications Access Bureau



- Having organized the training on “Strategic Costing and Business Planning for Quad Play” during 13 - 22 August 2014 and “Leveraging ICTs for Smart Sustainable Cities” during 29 September - 2 October 2014 with the objectives to develop knowledge body for staff of the Office of NBTC to be well-prepared for the change of technology whether in terms of knowledge, understanding, policy and regulations planning, and guideline for setting rules for competition, including to promote fairness among operators for the utmost benefit of the consumers. The training also focused on the regulation both in broadcasting and telecommunications services including new media which may arise in the future from the media convergence and the use of telecommunication technology and communication in laying telecommunication technology infrastructure of the country.

### 3) Promote and encourage the development of the operators’ competitiveness

Being in process of implementing the project to set up indicators of telecommunications operators’ efficiency in order to develop the decision support system in telecommunications policy for the NBTC and the Office of NBTC on the basis of having the indicators to measure the efficiency of telecommunication operators and indicators to measure telecommunications economy of Thailand that can be used for making policy on regulatory guidelines and promoting the development of telecommunications services in a positive impact both directly and indirectly under the free and fair competition.

### 4) Set up guidelines for the impartial regulation of wholesale and retail prices so that the market mechanism can operate effectively

- Having organized the Focus Group meeting for discussing the regulatory guidelines on telecommunications services rate with the telecommunications operators on 30 July 2014.
- Having organized the workshop for exchanging knowledge on the regulation of telecommunications services rate among countries in ASEAN members.



## 5) Regulation of telecommunications and radiocommunications services

In 2014, having regulated the telecommunications and radiocommunications services to be in accordance with the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010), the Telecommunications Business Act B.E.2544 (2001) and the Radiocommunications Act B.E.2498 (1955) and its addition, by conducting impartially investigation of the facts in the case of dispute which will help promoting free and fair competition among telecommunication operators, both the incumbent and new entrants, and protecting the users to be provided with efficient telecommunications services in fair price. Details is shown in Table 47.

Table 47: Telecommunications and Radiocommunications Regulation in 2014

No.	Activities/Projects	Outcome
1	Investigating the facts on the operation of telecommunications operators which may break the law, NBTC's notifications, rules, and regulations, and orders of the Office of NBTC.	17 cases
2	Investigating the facts as being requested or complained by telecommunications operators or the Resolution of the TC Meeting.	2 cases
3	Investigating the facts as having received the complaints on the acts which are offended according to the Radiocommunications Act B.E.2498 (1955).	8 cases
4	Inspecting the licensees to trade radiocommunications devices.	22 cases

Source: Telecommunications Enforcement Bureau

Moreover, the TC has regulated the quality of services of telecommunications operators to be in line with international standard under the NBTC Notification on Standard and Quality of Telecommunications Services (Voice) and the NBTC Notification on Standard and Quality of Telecommunications Services (Data) for Mobile Phone Network. Details is shown in Table 48.



**Table 48:** Telecommunications Regulation for Mobile Phone Network in 2014

No.	Activities/Projects	Outcome
1	Measuring and analyzing the quality and standard of mobile phone services in Bangkok and its vicinities, and provinces	110 provinces (repeated)
2	Measuring the quality of mobile phone services as having received complaints	8 complaints
3	Measuring the quality of mobile phone services in the same time of organizing “the TC Meets the Public Forum”	6 times
4	Measuring the quality of mobile phone services as special tasks assigned by the NBTC and Secretary-General of the NBTC	3 operators

Source: Telecommunications Enforcement Bureau

## Strategy 2: Spectrum Licensing and Telecommunications Business Licensing

The Strategy 2 has focused on granting licenses to new entrants based on free and fair competition; promoting licensing for services employing new technologies through technology-neutral doctrine; as well as on cooperating with relevant organizations to develop criteria and conditions for licensing the satellite communication service, with a view to fostering competition and promoting accessibility to telecommunication services. In 2014, the TC had performed the tasks under the strategy as follows:

- 1) Develop and review licensing rules and criteria which may be the barriers to the entry into the market of telecommunications service,** which includes reducing costs and processes of acquiring licenses of operators by setting up three (draft) NBTC Notifications consisted of the (draft) NBTC Notification on Criteria and Licensing Procedure of telecommunications Services Type 1, the (draft) NBTC Notification on Criteria and Licensing Procedure of telecommunications Services Type 2, the (draft) NBTC Notification on Criteria and Licensing Procedure of telecommunications Services Type 3. The Notifications are now in the process of proposing to the Deputy Secretary-General for consideration.
- 2) Encourage the market entry in order to benefit the telecommunications consumers of a variety of service options** by issuing 30 licenses for the provision of telecommunications services to the new entrants, and issuing 20 licenses for the provision of internet services to the internet service providers. Details is shown in Table 49.





**Table 49:** Statistic of Telecommunications and Internet Services Licensing in 2014

No.	Type of License	No. of License
1	Telecommunications Business License, Type 1	26
2	Telecommunications Business License, Type 2, without having own-network	1
3	Telecommunications Business License, Type 2, with own-network	0
4	Telecommunications Business License, Type 3	3
5	Internet Service Provision License, Type 1	14
6	Internet Service Provision License, Type 2 without having own-network	1
7	Internet Service Provision License, Type 2 with own-network	3
8	Internet Service Provision License, Type 3	2
<b>Total</b>		<b>50</b>

Source: Facilities - based Telecommunications Business Licensing Bureau, Service - based Telecommunications Business Licensing Bureau

During the year 2005 - 2014, the number of telecommunications operators and licenses for internet service provision has increased due to fair competition and a reduction of barriers to the market entry. There are 362 operators in telecommunications market as shown in Chart 7.

**Chart 7:** Number of Telecommunications Business Licenses (2005 - 2014)



Source: Facilities - based Telecommunications Business Licensing Bureau, Service - based Telecommunications Business Licensing Bureau



**3) Develop and improve rules, criteria and conditions for licensing telecommunications business which employ new technology**, including the provision of satellite communications service, by taking into consideration the technology neutrality and technology convergence in order to promote the competition and the distribution of telecommunications services.

- Formulating the (draft) NBTC Notification on Licensing Criteria, Procedure, and Conditions for the Provision of Satellite Communications Services. The Notification's content consisted of qualifications of license applicants, licensing procedure of consideration, criteria for licensing application, and three types of license which are type 1 license for provision of resale service of satellite communications without having own network, type 2 license for provision of satellite communications services with or without having own network, and type 3 license for provision of satellite channels with own network. The focus group meeting on the Notification was held on 31 January 2014 and it is now in the process of improving the Notification before further proposing to the Meeting of TC and NBTC for approval, respectively.
- Having prepared for the spectrum auction in the frequency bands of 900 MHz and 1800 MHz and setting up the licensing criteria to use the spectrum in the bands the 900 MHz and 1800 MHz which consisted of the (draft) NBTC Notification on Criteria and Licensing Procedure to Use the Spectrum for Telecommunications Services in the Frequency Bands of 897.5 - 915.0 MHz/942.5 - 960.0 MHz B.E. ...., the (draft) NBTC Notification on Radio Frequency Plan for International Mobile Telecommunications in the Frequency Bands of

*1 Focus Group Meeting to the (draft) NBTC Notification on Criteria, Licensing Procedures and Conditions for Telecommunications Business via Satellite Communications*



895 - 915/940 - 960 MHz, the (draft) NBTC Notification on Criteria and Licensing Procedure to Use the Spectrum for Telecommunications Services in the Frequency Bands of 1710 - 1722.5 MHz/1805 - 1817.5 MHz and 1748 - 1760.5 MHz/1843 - 1855.5 MHz B.E. ...., and the (draft) NBTC Notification on Radio Frequency Plan for International Mobile Telecommunications in the Frequency Bands of 1710 - 1785/1805 - 1880 MHz. More information has been presented in Part 2 “Mission and Major Projects in 2014” and Part 3 “Key Performances of NBTC in 2014”.

**4) Having assigned the spectrum for the use of radiocommunications services** by means of new spectrum assignment and spectrum refarming to the state-enterprises, social organizations, and private sector in order to support and promote the national special telecommunication services for totally 2,112 frequencies. Also, The TC has granted 188,521 licenses of radiocommunications, 5,063 certificates for radiocommunications operators, and 6,418,251 labels for indicating the compliance with standards. Details is shown in Table 50 - 52.

**Table 50:** Spectrum Assignment for Radiocommunications Services in 2014

No.	Organization	Bands	No. of Frequency in 2014
1	Public Agencies	VHF	9
2	State-Enterprises	UHF	6
		VHF	7
3	Private Sector	SHF	6
		UHF	8
		VHF	67
4	Private Organizations for Charity	VHF	11
5	Local Administration	UHF	51
		VHF	1,947
Total			2,112

Source: Radiocommunications Licensing Bureau



Table 51: Statistic of Radiocommunications Licensing in 2014

No.	Type of License	No. of License
1	Manufacture radiocommunications devices	312
2	Import radiocommunications devices	5,389
3	Export radiocommunications devices	2,100
4	Trade radiocommunications devices and trade for repairing	1,364
5	Use radiocommunications devices	106,110
6	Install radiocommunications stations	24,587
7	Possess radiocommunications devices	41,283
8	Radiocommunications operators	6,999
9	Receive news	-
10	Licenses Replacement	377
Total		188,521
11	Labels	6,418,251
Total		6,606,772

Source: Radiocommunications Licensing Bureau

Table 52: Statistic of Certificate Granting for Radiocommunications Officers in 2014

No.	Type of Certificate for Radiocommunications Officers	No. of Certificates
1	GOC and ROC operator certificate	435
2	Fishing boat certificate	-
3	Primary radio amateur certificate	2,842
4	Medium-class radio amateur certificate	-
5	Replacement certificate for primary radio amateur	176
6	Certificate for radiocommunication synthesizer	1,610
Total		5,063

Source: Radiocommunications Licensing Bureau





### Strategy 3: Efficient Utilization of Telecommunication Resources

The Strategy 3 has aimed to manage and authorize the use of telecommunications resources in an efficient manner, promote infrastructure and resources sharing with a view to achieving utmost benefits in both national and local levels in education, public health, cultures, security of the state, and other public benefits, such as the case of an emergency or disasters, according to the appropriateness, the necessity, the adequacy of the use, the advancement of modern technology; as well as to promote the utilization of telecommunications resources including radiocommunications and satellite communications efficiently and in compliance with international norms and commitments. In 2014, the details of activities are as follows:

- 1) **Improving and developing plans and criteria for the effective, transparent and fair telecommunications resources management and regulation including promoting the licensing to use telecommunication resources which can be used in telecommunications business to keep pace with the change of circumstances and technology.**
  - Having issued the NBTC Notification on Telecommunications Numbering Plan which has been published in the Royal Gazette on 7 May 2014 and the NBTC Notification on Criteria for Telecommunication Numbers Allocation and Management which has been published in the Royal Gazette on 7 May 2014. Both Notifications will help the NBTC in allocating telecommunications numbers to sufficiently support the increasing needs to use the numbers of the general public by allocating numbers in the group 06x-xxx-xxxx for mobile phones which made the telecommunications numbers increased of totally 50 million numbers from the numbers already prepared of 300 million numbers (including group 01x-xxx-xxxx).
  - Having drafted the Criteria on Mobile Phone Numbers Allocation for Pretty Numbers which the Office of NBTC has set aside since 2010 for totally not less than 10.32 million numbers.
  - Having allocated telecommunications numbers by categorized into type of services for 65,708,291 numbers consisted of 65,260,000 mobile phone numbers, 288 special 4-digit numbers, and 3 special 3-digit IDD numbers as shown in Table 53 and Chart 8.



Table 53: Telecommunications Numbering Allocation during 2008 - 2014

	2008	2009	2010	2011	2012	2013	2014
	Numbers	Numbers	Numbers	Numbers	Numbers	Numbers	Numbers
<b>Fixed-line numbers</b>							
Total accumulated numbers allocation	18,458,000	18,458,000	18,542,000	18,592,000	18,736,000	18,770,000	19,218,000
Annum numbers allocation	-	-	84,000	50,000	144,000	34,000	448,000
<b>Mobile phone numbers</b>							
Total accumulated numbers allocation	87,850,000	93,360,000	99,660,000	106,330,000	117,470,000	168,470,000	233,730,000
Annum numbers allocation	-	8,510,000	3,300,000	6,670,000	11,140,000	51,000,000	65,260,000
<b>VOIP numbers</b>							
Total accumulated numbers allocation	36,000	46,000	63,000	65,000	67,000	67,000	67,000
Annum numbers allocation	-	10,000	17,000	2,000	2,000	-	-
<b>Special 4-digit numbers allocated for public agencies, private sector, and reassign numbers</b>							
Total accumulated numbers allocation	297*	337	221**	311	330	362	650
Annum numbers allocation	(18+279*)	40	31	90	19	32	288
<b>Special 3-digit numbers</b>							
Total accumulated numbers allocation	3	8	8	8	8	10	13
Annum numbers allocation	-	5	-	-	-	2	3

Remarks: \* In 2010, the NTC had its meeting's solution to reassign 279 special numbers of TOT Public Company Limited which has come into effective since 28 August 2008.

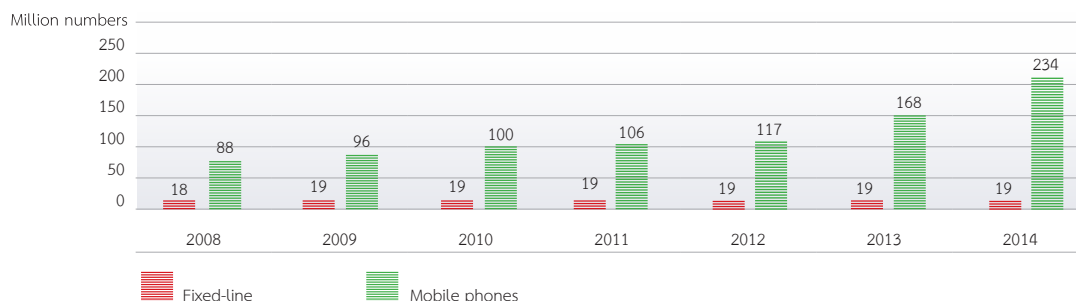
\*\* The NTC's Resolution on the special number reassign resulted in the cancellation and return of the special numbers of concerned organizations in 2010 and 2011 (continuously) to the NTC.

During the year 2010 - 2011, some organizations had been investigated the use of special numbers by the Office of NBTC.

Source: Numbering Management Bureau



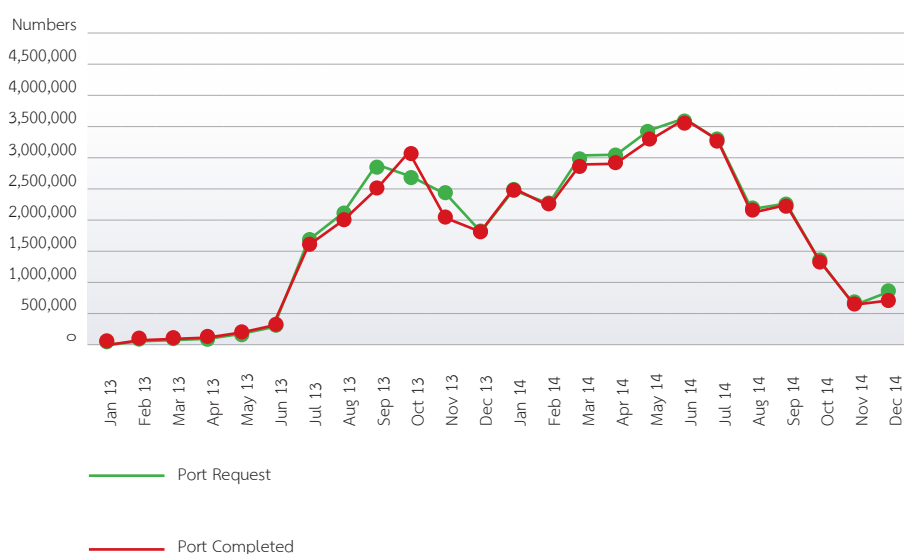
**Chart 8:** Accumulated Telecommunications Numbering Allocation for Fixed-Line and Mobile Phone Services (2008 - 2014)



Source: Numbering Management Bureau

- Having launched the Mobile Number Portability service which enables mobile phone users to retain their mobile telephone numbers when changing from one mobile network operator to another. When having considered the statistics of the service, it is found that during 2013 - 2014 the number of MNP service users has increased steadily. In the year 2013, a total number of porting request were 15,974,718 numbers and the numbers porting completely were 14,855,015 numbers. For the year 2014, a total number of porting request were 31,284,066 numbers and the numbers porting completely were 30,219,374 numbers. Details is shown in Chart 9.

**Chart 9:** Number of Users on Mobile Phone Numbers Portability (2013 - 2014)



Source: Numbering Management Bureau



**2) Promoting the use of telecommunications and radiocommunications resources in order to prepare the readiness for the case of emergencies and disasters or in the cases which are deemed as necessary, general public peacekeeping, national security, or economic stability, or prevention of the public interest as follows:**

- Having issued the NBTC Notification on Criteria for Amateur Radio Business Licensing and Regulation which has been published in the Royal Gazette on 23 July 2014 for encouraging individuals who are interested in amateur radio services and radio amateurs to have role in academic research on the communication with spectrum-used and developing technology which will be useful for communications as well as for the use of spectrum in disaster or emergencies situation.
- Having implemented the project for the establishment of the volunteer network of radio amateurs and general public in order to perform the tasks in case of disasters. Also, two trainings courses were organized and 252 participants have passed the trainings.
- Setting up the project on invention of radio amateurs innovation contest in the Week of the Radio Amateurs in honor of His Majesty the King 2014 during 8 - 13 December 2014. More information have been presented in Part 2: Mission and Major Projects in 2014.

**3) Promoting infrastructure sharing and rights of way, as well as encouraging the efficiency improvement and deployment of infrastructure for the provision of services, particularly the provision of broadband service as follows:**

- Having regulated the use of rights to set up or erect poles, lay lines or place ducts or install any other associated equipment for the provision of telecommunications services. In 2014, the TC had considered and approved the requests of 13 licensees to set up or erect poles, lay lines or place ducts or install any other associated equipment for the provision of telecommunications services to be in line with the NBTC Notification of Criteria and Procedure of the Use of Rights to Set up or Erect Poles, Lay Lines or Place Ducts or Install any other Associated Equipment for the Provision of Telecommunications Services by having approved 3727 applications, and 22,575 routes for laying optical fiber (OFC) (total distance of 96,251.09 kms.), network expansion for service provision to users through copper cables (COP) for 538 routes (total distance of 2,852.07 kms.), expansion for service provision through coaxial for 764 routes (total distance of 4,280.73 kms.). Total distance for laying network throughout the country is 103,383.88 kms., which can be categorized by region. Details is shown in Table 54 and Chart 10 - 14.



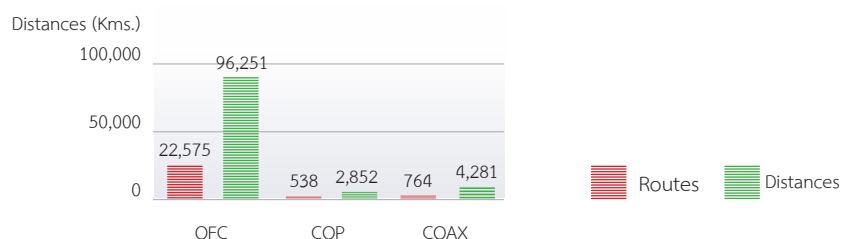


**Table 54:** Total Distance for Telecommunications Network Expansion of Thailand in 2014

Year	OFC (Route)	Distance (Kms.)	COPPER (Route)	Distance (Kms.)	COAXIAL (Route)	Distance (Kms.)
2014	22,575	96,251.09	538	2,852.06	764	4,280.73

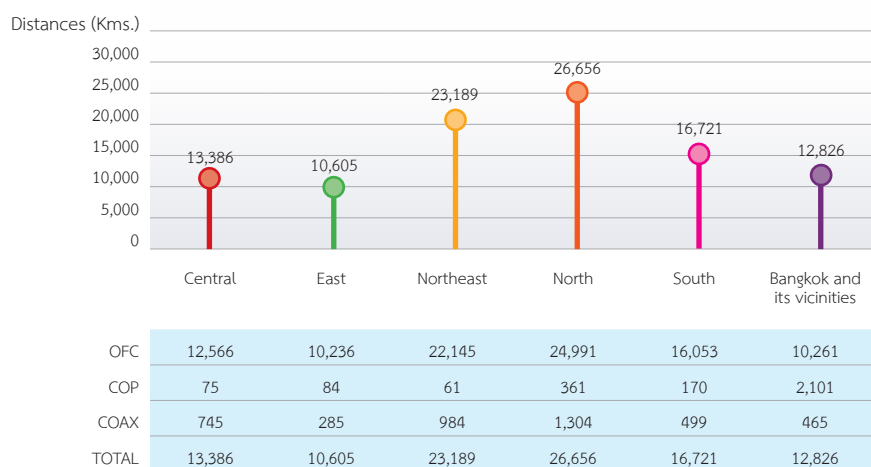
Source: Telecommunications Policy and Resources Management Bureau

**Chart 10:** Distances for Telecommunications Network Expansion in 2014



Source: Telecommunications Policy and Resources Management Bureau

**Chart 11:** Telecommunications Network Expansion Categorized by Region in 2014



Source: Telecommunications Policy and Resources Management Bureau



Chart 12: OFC Network Expansion Categorized by Region in 2014

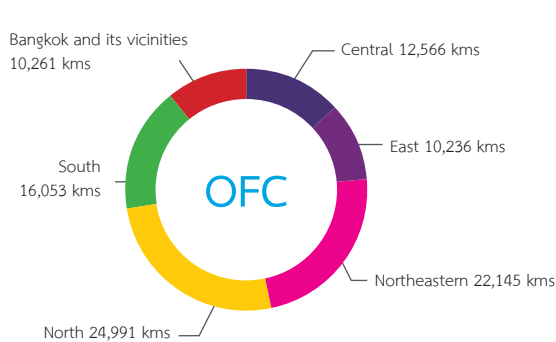


Chart 13: COP Network Expansion Categorized by Region in 2014

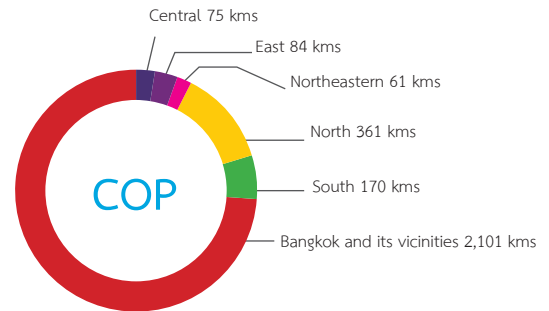
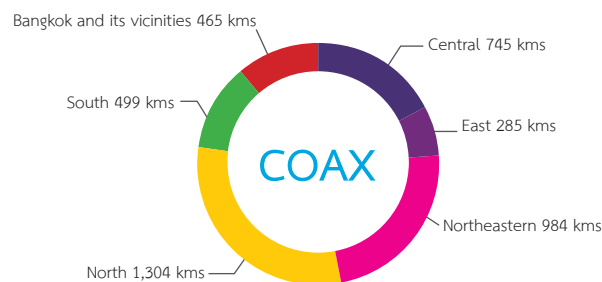


Chart 14: COAX Network Expansion Categorized by Region in 2014



Source: Telecommunications Policy and Resources Management Bureau

- Having improved the plan for telecommunication lines organization and positioning areas of installation of telecommunications cable underground B.E.2557 - 2561 (2014 - 2018), which help support the use of infrastructure sharing of telecommunication operators. This will result in the orderliness of the telecommunications lines attached to electricity poles and the safety to life and property of citizens. This will also promote the telecommunication lines organization with standard practices or be in the same direction of standard whether for the agency who owns the land or property or the operators.



- Promoting and Granting authorization to establish a Telecommunications Infrastructure Fund that is the Jasmine Broadband Internet Infrastructure Fund (JASIF) who have invested in optical fiber under 2 consitions as follows:
  - shall not be monopolized by a single operator and allow other operators to use the telecommunications infrastructure sharing.
  - shall comply with the criteria and conditions to be set by the NBTC in the future. The establishment of the fund will help support the operators for infrastructure sharing and reduce the duplication of investment in infrastructure, as well as enable the new operators to develop the network for the provision of telecommunications services without own poles (tower) or telecommunications network equipment.
- Following-up and regulating the telecommunication operation of the international mobile telecommunication (IMT) in the frequency band of 2.1 GHz in terms of telecommunications network installation and the provision of telecommunication network to be covered in all provinces. This will enable the public to access to information and knowledge body in areas of education, public health, agriculture, disasters and natural disasters monitoring and warning, and other services thoroughly and equally. From the follow-up and regulation of the 3 licensees to use the spectrum in the frequency band of 2.1 GHz consisting Advanced Wireless Network Company Limited (AWN), Real Future Company Limited (RF), and DTAC TriNet Company Limited (DTN) to be complied with the consitions attached to the licenses which prescribing that the licensee shall provide a telecommunications network for the provision of telecommunications services covering all provinces. The telecommunications network must also cover a population of not less than 50 percent of total population within 2 years and 80 percent within 4 years starting from the date of granting the licenses. It is found that within a period of two years from the date of issuance of license to use the spectrum for IMT in the frequency band of 2.1 GHz, the 3 licensees have been authorized to install 33,742 radiocommunications stations for IMT services in the frequency band of 2.1 GHz. Those stations consisted of 18,215 stations of AWN, 10,063 stations of DTN, and 5,464 stations of RF and all licensees have already installed the telecommunications network covering all provinces.



#### 4) Regulating telecommunications network access and interconnection

In 2014, the TC had investigated 4 offers telecommunications network interconnection which are in the process of proposing to the TC Meeting for consideration as shown in Table 55.

**Table 55:** Reference Telecommunications Network Interconnection Offers in 2014

No.	Company	Status
1	DTAC TriNet Company Limited	In the process of proposing to the TC for consideration
2	Total Access Communication Public Company Limited	In the process of proposing to the TC for consideration
3	Triple T Broadband Company Limited	In the process of proposing to the TC for consideration
4	Amnex Company Limited	In the process of proposing to the TC for consideration

Source: Telecommunications Access Bureau

For the reference access offer (RAO) the telecommunications business licensees with own network has submitted 17 RAOs to the TC for consideration and approval before having negotiated with other licensees for their access to the telecommunications network according to the NTC Notification on Telecommunications Network Access and Interconnection B.E.2549 (2006). Among those RAOs, 4 RAOs have already been approved by the TC and other 13 RAOs are still being in the process of investigation. Details are shown in Table 56 - 57.

**Table 56:** Reference Telecommunications Network Interconnection Offers which have been approved in 2014

No.	Company	Date of Approval
1	Total Access Communication Public Company Limited	TC Meeting's Resolution No. 19/2014 on 23 July 2014
2	DTAC TriNet Company Limited	TC Meeting's Resolution No. 19/2014 on 23 July 2014
3	Electricity Generating Authority of Thailand	TC Meeting's Resolution No. 23/2014 on 10 September 2014
4	Thaicom Public Company Limited	TC Meeting's Resolution No. 29/2014 on 23 December 2014

Source: Telecommunications Access Bureau





**Table 57:** Reference Telecommunications Network Interconnection Offers which are still being in the process of approval in 2014

No.	Company
1	Jas Tel Network Company Limited
2	Otaro Company Limited
3	Otaro World Corporation Company Limited
4	Triple T Broadband Public Company Limited
5	Provincial Electricity Authority
6	Elite Tech Telecom Company Limited
7	CS Loxinfo Public Company Limited
8	Symphony Communications Public Company Limited
9	United Information Highway Company Limited
10	China Sup Company Limited
11	BB Connect Company Limited
12	System Integration & Technology Company Limited
13	True International Gateway Company Limited

Source: Telecommunications Access Bureau

After the RAOs have been approved by the TC, the licensees who own the network must publish the approved RAOs to the public. In addition, if there is any operator requested for telecommunication network access, the licensees who own the network and the requested operator shall have their duties to negotiate for arranging the contract for telecommunication network access. If both parties are able to reach an agreement and have already arranged the contract, the contract must be submitted to the TC for approval as prescribed by the NBTC Notification on Telecommunications Network Access and Interconnection B.E.2549 (2006).

In 2014, four RAOs were investigated and approved as shown in Table 58.



Table 58: Telecommunication Network Access Contract in 2014

No.	Company	Date of Approval
1	Total Access Communication Public Company Limited	TC Meeting's Resolution No.6/2014 on 4 March 2014
	Symphony Communications Public Company Limited	
2	Total Access Communication Public Company Limited	TC Meeting's Resolution No. 13/2014 on 20 May 2014
	DTAC TriNet Company Limited (1 <sup>st</sup> Amendment)	
3	Total Access Communication Public Company Limited	TC Meeting's Resolution No. 13/2014 on 20 May 2014
	United Information Highway Company Limited	
4	Electricity Generating Authority of Thailand	TC Meeting's Resolution No. 29/2014 on 23 December 2014
	TOT Public Company Limited	

	Network providers/owners
	Network access requesters

Source: Telecommunications Access Bureau

Moreover, the licensees to use telecommunications network have their duties to disseminate the telecommunications network access contract to the public for ensuring of transparency and fairness among all licensees as well.

#### Strategy 4: Providing universal basic telecommunications service

In 2014, the TC has pushed up the implementation of Strategy 4 in the provision of universal basic telecommunications services which has aimed to improve quality of life of the general public by promoting the provision of basic telecommunications services with good quality for in an appropriate price for the society, education, public health, and national security. Also, the increase of potentials of telecommunications equipment manufacturers intended for the disabled and the underprivileged were supported.



**1. Implementing the Action Plan for the Provision of Universal Basic Telecommunications Services and Social Services (2012 - 2016) which the targets are shown in Table 59.**

**Table 59:** Goals for Basic Telecommunications Universal Services and Social Services Plan (2012 - 2016)

Goals for Basic Telecommunications Universal Services and Social Services Plan	
1	The population of no less than 95 percent of the country have access to the personal phone services
2	The population of no less than 80 percent of the country have access to high speed internet services (not less than 2Mbps)
3	Providing public telephone services of 1-2 numbers per village in areas with no commercial potential and no service.
4	Setting up the community internet centers, and providing internet service in schools, hospitals and healthcare centers in sub-district areas, etc., with the internet speed of no less than 2 Mbps in areas with no commercial potential and no service.
5	Setting up high speed internet services for households in commercially viable areas but still lack of services (no less than 50,000 households).
6	Enhancing skills and knowledge which will be useful to the public for not less than 500,000 people.
7	Conducting studies and analyzing approaches for the provision of emergency telephone numbers services by having included as part of the provision of basic telecommunications universal services and social services and the studies must be completed within one year.

**The important implementation for achieving the goals of Basic Telecommunications Universal Services and Social Services Plan (2012 - 2016) are as follows:**

- The project for the expansion of network for the provision of telephone and internet services throughout the country according to the target goal No.1 - 5, in 2014, the TC has implemented the project by means of beauty contest in two pilot provinces, Nong Khai and Phitsanulok, within the budget of 480.91 million baht in order to select an operator to carry out the installation of public telephones in the villages where no telecommunications service is provided by setting up community internet centers, and providing internet service in schools, hospitals and healthcare centers in sub-district areas, and Sub-district Administrative Organization in Phitsanulok and Nong Khai. The project will help reduce the gap of information access and raise up the quality of life of the general public. However, it was found from opening the bid of the project of



the Office of NBTC on 8 May 2014 that TOT Public Company Limited was the one who offered the minimum bid that passed the qualification required according to the announcement of the tender of the project. In addition, the TC has gathered information that is necessary to define the target areas in 73 provinces across the country, by using the application of geographic information systems (GIS). The data gathered had been used for analyzing and determining the target areas and the cost of telecommunications network expansion, which will effectively enable the expansion of telecommunication networks across the country. Moreover, the TC had held meetings with Sub-district Administrative Organizations and targeted organizations in order to clarify and build the understanding on the establishment of community internet centers in Nong Khai on 12 December 2014 at Panlaan Boutique Resort.

- Having organized seminars and trainings on report preparation for the delivery of USO fee on 22 December 2014 at the Sukosol Hotel, Bangkok.
- The project for establishing and enhancing potential of volunteer network (Target Goal No.6) to transfer knowledge on the use of information technology and communications and basic computer and internet use for the staff of community internet centers (USO Net) and other interested people . Commissioner General Sukit Khamasunthorn had visited the USO NET Centers and presided over the ceremony of certificates presentation to the volunteers (class 1) on 30 June 2014.
- The project for studying and analyzing approaches for designating the provision of emergencies telephone number as USO services (Target Goal No.7) in order to study the feasibility of the allocation of one single emergencies telephone number throughout the country (Thailand), and the use of spectrum in emergencies situation, as well as analyze the feasibility of technical operation, procedures and telecommunications technology and communications according to the recommendations of the Committee on Human Right, Liberty, and Consumer Protection.

*1,2 The ceremony of certificates presentation to the volunteers (class 1) The project for establishing and enhancing potential of volunteer network*







2. Promoting the development of products for universal basic telecommunications services and social services by supporting the telecommunications innovation in order to increase opportunities, bridge the gap, and support the disabled and the underprivileged to be able to access to the universal basic telecommunications services and services for society and education by having carried out important projects as follows:

- The project for the provision of information services through telecommunication network in Daisy systems in order to create opportunities for the visually impaired and the disabled to be able to access useful information in form of audio library through automatic telephone number 1414 and websites: [www.tab2read.com](http://www.tab2read.com). Therefore, the Office of NBTC and the Foundation for the Blind of Thailand have join the implementation of the project. In 2014, the telephone lines were expanded from 200 lines to 300 lines in order to support the increasing use of the disabled. Also, additional functions of the service provision and website management (Tab2Read) were developed by adding new functions in part of user interface to be more compact and modern, as well as producing the audio description and audio books to be published on the website constantly.
- The project for installing the Thailand Telecommunication Relay Service (TTRS) in 2014. Having implemented the project for supporting the hearing impaired and the speech impaired people to be able to access information through the TTRS which have been installed in 27 branches of Big C Supercenter throughout the country and developing the emergency medical system for receiving notification through 1669 as well as organizing the training on ITEMS programs of the emergency medical system in order to link with the working system of TTRS. Moreover, the Office of NBTC, in cooperation with the Foundation for the Disabled and Big C Supercenter had held the signing ceremony of memorandum of cooperation for the implementation of the project for installing the Telecommunication Relay Service (TTRS) for the hearing impaired in 27 pilot branches of Big C Supercenter throughout the country, on 18 July 2014 at Anoma Hotel, Bangkok.



1 The signing ceremony of memorandum of cooperation between the Office of NBTC and Big C Supercenter on 18 July 2014



2 The ceremony of certificates presentation for the teachers and students who had highest scores of the examination under the project to create young people of new generation to use ICT wisely, phase 2

- The project to create young people of new generation to use ICT wisely, phase 2 (NETGEN<sup>2</sup>) has its objectives to develop the IT potential of 800 teachers and students in Thailand to have a knowledge foundation on par with international countries. The project have achieved successful outcome. The closing ceremony of the project was done by inviting Commissioner General Sukit Khamasunthorn to be the Chairman of ceremony. Also, the ceremony of certificates presentation was held for the teachers and students who had highest scores of the examination in the course of Adobe Certified Associated (ACA) Certificate, Microsoft Office Specialist (MOS) Certificate and the Internet and Computing Core (IC<sup>3</sup>) Certificate in which 63 teachers and 89 students were awarded the certificates by Mr. Thakorn Tantasith, Secretary-General of the NBTC and the President of Computer Association of Thailand, on 20 November 2014 at the Auditorium of the Office of NBTC.

## Strategy 5: Protecting consumers in telecommunications

The Strategy 5 has focused on promoting consumers' awareness on their basic rights in telecommunications services and advantage of utilizing each type of telecommunications services, increasing consumers' capabilities in keeping pace with the changing technologies for efficient use, enhancing the users' understanding of their rights and freedom to use telecommunication services and be able to access to various channels for lodging the complaints effectively, as well as establishing measures for increasing ethical roles and social responsibilities of the operators. In 2014, the activities are as follows:

- 1) **Improving and enforcing the rules for the protection of consumers' privacy to be more effective** by drafting the NBTC Notification on Measure for the Protection of Consumers' Right in Telecommunications Services in terms of personal information, right to privacy, and freedom to communicate. The Notification is now in the process of consideration of the Sub-committee on Telecommunications Laws and Regulation Integration and Revision before proposing to the TC and NBTC for approval respectively.



2) Develop and improve standards of contract, standards for the provision of services including criteria, procedures and mechanisms for monitoring quality of service in order to protect the telecommunications users to receive standardized and better quality of services and use telecommunications equipment which have type approved as follows:

- Improving the NTC Notification on Standard and Quality of Telecommunication Service Provision (Voice) B.E.2551 (2008) by developing the (draft) NBTC Notification on Standard and Quality of Telecommunication Service Provision (Voice) B.E. .... which prescribing that the telecommunications business licensees shall conduct the measurement of quality of service and quarterly publish the result of the measurement of quality of service to the public via website of the licensees in order to protect the users to receive standardized and better quality of services as well as to support the development of national telecommunications network. The public hearing on the (draft) Notification was held on 28 October 2014.
- Having issued the Notifications for consumer protection as follows:
  - The NBTC Notification regarding Technical Standard of Telecommunications Equipment on Short Range Devices in the Frequency Band of 57 - 66 GHz for Wireless Local Area Network (WLAN) or Wireless Personal Area Network (WPAN) B.E.2557 (2014).
  - The NBTC Notification regarding Technical Standard of Telecommunications Device and Equipment for Radiocommunications, Base Station, and Repeater Station for International Mobile Telecommunications (IMT) Which Use Evolved Universal Terrestrial Radio Access (E-UTRA) Technology.
  - The NBTC Notification regarding Technical Standard of Telecommunications Device and Equipment for Radiocommunications Subscribers in International Mobile Telecommunications (IMT) Which Use Evolved Universal Terrestrial Radio Access (E-UTRA) Technology.
  - The NBTC Notification regarding Technical Standard of Telecommunications Device and Equipment for Radiocommunications for Vehicle Radar.

3) Develop and improve the complaint management system and the dispute resolution by mean of mediation

- After having launched the Telecommunications Mediation Center (TMC) for promoting the dispute resolution as an alternative option for resolving problems arising from the use of telecommunications services which has been recognized in both national and international levels as a better and efficient way. In mediation, there will be the mediator selecting from qualified persons to act impartially in mediation so that both parties are able to negotiate and reach satisfied agreement themselves. It has also been a channel for dispute resolution on the telecommunications services. Moreover, on 19 November 2013, the TC had organized a workshop for the telecommunications business licensees, scholars, consumers, mass media, the executives and staff of



the Office of NBTC in order to enhance knowledge and understanding on the concept, procedures, and method of mediation under the NBTC Regulation regarding Dispute Resolution between Telecommunications Business Licensees and the Complainants B.E.2555 (2012), and to gather comments and recommendation of the participants to the workshop for being used in the improvement of the operation of the TMC for more efficiency. From 19 November 2013 to December 2014, the TMC had conducted the mediation for 24 complaints (4 complaints in 2013, and 20 complaints in 2014) which 22 complaints were mediated completely. More details have been presented in Part 4: “Key Performances of the Office of NBTC in 2014”.

- Having revised the NTC Notification on Procedure of Users’ Complaints Receipt and Consideration B.E.2549 (2006) in order to reduce duplication of the authority of Sub-committee on Telecommunications Consumer Protection and the Office of NBTC in complaints management and consumer protection which will lead to the more swift and efficient consideration for resolving complaints of the TC on behalf of the NBTC.

4) Develop and disseminate the information on basic rights which the consumers in telecommunications should aware in forms of publication through NBTC website as follows:



In addition, the TC had issued the Declaration of Rights of the mobile phone service users and requested the mobile phone service providers' cooperation to provide the declaration of rights of the users in form of the announcing document to be posted at all service centers of all mobile phone service providers in order to raise awareness of the rights of telecommunications users especially on the use of pre-paid mobile phone services, post-paid mobile phone services, selection of using mobile phone services, mobile number portability, cancellation of SMS spam service, termination of roaming service, and complaint filing. More information have been presented in Part 2: “Mission and Major Projects in 2014”.





- 5) Developing criteria for the protection of the consumers' rights under section 31 paragraph 2 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication Service B.E.2553 (2010), by having revised the (draft) NBTC Notification on the action in any means which may be deemed as an exploitation to the consumers in telecommunication services by using their network or advertisement in the manner of undue profit making, or causing annoyance B.E. .... and proposing to the TC for consideration and approval.
- 6) Promoting consumer protection in telecommunications services by encouraging the learning process and strengthening the consumers' network for protection of their rights, and enhancing the public awareness of their rights to the use of telecommunications service, as well as supporting the general public participation by organizing activities for disseminating knowledge on roles and responsibilities of the TC and the Office of NBTC in the consumer protection in telecommunications services, including promoting the channel for filing complaints of the problems arising from the use of telecommunications services to the public as follows:

1, 2, 3, 4

The "Telecommunications Commission Meets the General Public Forum" Year 2/2014, in 5 regions



1



2



3



4



- Having organized the “Telecommunications Commission Meets the General Public Forum”, Year 2/2014, with the objectives to explaining the mission of the NBTC, roles and responsibilities in regulating telecommunications services to the public as well as to hearing problems and recommendations from the public in some provinces of five regions such as Prachuap Khiri Khan in the West, Chumphon in the South, Khon Kaen in the Northeastern, Chiang Rai in the North, Samut Songkhram and Bangkok in the Central Region. All information gathered from the forum will be used to improve the work of the Office of NBTC who acts as the organization responsible for consumer protection in telecommunications services and to response to the need of the public.
- Having organized 3 activities to enhance knowledge on consumers’ rights in telecommunications services which consisted of the activity for providing knowledge on consumers’ rights in telecommunications services to the academic institutes, the training workshop on the rights of consumers in telecommunication services that the consumers should know about, and the campaigning activity for providing knowledge on consumers’ rights in telecommunications services and hearing the problems and recommendations from the consumers in community. The participants to the activities were composed of students, teachers, chief of public agencies in provincial level, executives of local administration, leaders of communities, local consumer protection organizations, mass media, and other interested people. Details is shown in Table 60.

**Table 60:** Activities for Enhancing Knowledge on Consumers Rights in Telecommunications

No.	Region	Dates	Venue
1	Northeastern	6 - 8 August 2014	Roi Et
2	Central	2 - 4 September 2014	Nakhon Sawan
3	East	16 - 19 September 2014	Chon Buri
4	South	8, 10 - 11 November 2014	Phuket and Krabi
5	North	18 - 20 November 2014	Mae Hong Sorn

Source: Telecommunications Consumer Protection Bureau

- Having organized the workshop on promoting the youth network mechanism for the consumer protection in telecommunications services under the slogan “ Thai Telecom Go Forward Together”, with the objectives to enhance knowledge and understanding of the youth on the consumers’ rights in telecommunication services and are able to transfer the knowledge gained from the workshop to others. Details is shown in Table 61.



**Table 61:** Workshop on Promoting Youth Network Mechanism for Consumer Protection in Telecommunications

No.	Region	Dates	Venue
1	South	2 August 2014	Twin Lotus Hotel, Nakhon Si Thammarat
2	Northeastern	30 August 2014	Centara and Convention Center, Khon Kaen
3	North	27 September 2014	Amarin Lagoon, Phitsanulok
4	Central	22 October 2014	Century Park Hotel, Bangkok

Source: Telecommunications Consumer Protection Bureau

- Having organized the workshop on “developing the participation in the consumer protection network in telecommunications services” in order to establish the collaboration with citizen network which will be a medium between the Office of NBTC and the public users in passing on the knowledge information of consumers’ rights in telecommunications services. The participants to the workshop consisted of members of citizen network and community leaders from Khon Kaen and Surat Thani provinces.
- Having organized the exhibition on the use of roaming services and mobile phones service in the bordering areas with neighbor countries in Nakhon Phanom, and officially open the Information Center of the Office of NBTC at the Entrance No.6 of International Departure Hall, 4<sup>th</sup> Floor, Suvarnabhumi Airport, in order to provide information on the properly use of internet service and the methods to cancel or terminate data roaming service which will help preventing the users from being charged for international mobile phone roaming service without subscribing the services. More information have been presented in Part 2: “Mission and Major Projects in 2014”.

1, 2 Opening ceremony of “Using mobile phone on the bank of Mae Khong river, beware of being charged from roaming service”





7) **Promoting the use of telecommunications technology to improve the quality of life and the public participation** by setting up learning process for utilizing telecommunications technology, developing quality of learning, accessing to and utilizing of information, education of the public, occupation, public health, and provision of services for other public benefit for the safety of life and property as follows:

- Training project for promoting the application of telecommunications technology in education development on “NBTC Education Executive Roadshow 2014” for the school executives and teachers in the Department of Basic Education in 4 regions which were Bangkok in the Central, Petchburi in the West, Nakhon Ratchasima in the Northeastern, and Chiangmai in the North.
- Project for developing the capabilities of leading teachers to use ICT safely, creatively, and knowingly.

### Strategy 6: Preparation for joining the ASEAN Economic Community and promoting of international cooperation

The Strategy 6 has focused on promoting Thailand to have potentials and readiness for joining the ASEAN Economic Community in 2015 by fostering international cooperation in telecommunications, establishing networking mechanism in infrastructure, regulations, industry, research and development entities, regulators and the public, as well as promoting international cooperation in both bilateral and multilateral levels for the benefit of the nation. The activities in the year 2014 are as follows:

1) **Having established the working group for setting up measures for supporting the preparedness of telecommunications business regulation for joining the ASEAN Economic Community**, on 13 November 2014. The responsibilities of the working group are to study and analyze the readiness of Thailand in a comparison with other ASEAN member countries either in terms of infrastructure, area coverage of network and services (price and quality) which included the assessment of the readiness to use ICT, regulation, and potential of the operators, as well as to study and analyze the strengths, weaknesses, opportunities and threats of telecommunications business of Thailand in order to propose the recommendations on policy and regulation, and setting appropriate measures to accommodate and prepare for telecommunications liberalization under the ASEAN framework and to set up the action plan for the preparedness of the telecommunications business in the entering to the ASEAN community during 2015 - 2016.

At present, the working group is in the process of drafting the action plan for the preparedness of the telecommunications business to the ASEAN community during 2015 - 2016 and to support the Strategic Implementation Approach in Strategy 6 of the Telecommunications Master Plan No.1 (2012 - 2016).





1, 2, 3 Workshop on  
"Knowledge Sharing on Telecoms Price  
Regulation among  
ASEAN Community"  
during 20 - 21 November  
2014

- 2) Having promoted international cooperation in telecommunications under bilateral and multilateral levels frameworks by strengthening a good relationship with ASEAN regulators such as Ministry of Post and Telecommunications of Democratic Republic of Laos, and telecommunications regulators of the Kingdom of Cambodia, which leads to the establishment of cooperation framework in the future. In addition, Commissioner Dr. Suthipon Thaveechaiyagarn has proposed to the ASEAN Telecommunication Regulators' Council (ATRC) Meeting held in Champasak, Democratic Republic of Laos, during 12 - 14 August 2014 to consider the feasibility of having multilateral agreements in the case of charging a single roaming rate for international calls among ASEAN member countries which will help the consumers in the countries who have signed in the multilateral agreements for being charged in a reduced prices, and the meeting agreed with the proposed concept.





- 3) Developing, improving and setting up telecommunications rules and regulations to be in line with international commitment in which the Office of NBTC had signed in the memorandum of technical cooperation with the Electricity Generating Authority of Thailand (EGAT) for jointly consideration on the setting up of criteria and rules for regulating the communications business to be in line with the guidelines for the development towards Thailand Smart Grid and Smart ASEAN Power Grid.
- 4) Having pushed forward a mutual recognition agreement of standards and the conformity and assessment on telecommunications under cooperation frameworks by creating a connection between industry, conformity and assessment bodies, operators, regulators and consumers
- 5) Having encouraged telecommunications operators to prepare for the competitiveness in telecommunications industry, and to support the preparation for joining the ASEAN Economic Community in 2015 as follows:
  - Organizing seminar for raising awareness to become ASEAN Community 2015 on “Telecom Regulations in ASEAN: Best Practices and Success Stories”, with the objectives to encourage the inspiration of practitioners in telecommunications services, operators, government agencies, and private sector and to provide information on the best practices, the successful implementation in ASEAN and the appropriate approaches to telecommunications environment and local legislation of Thailand for the implementation and regulation, on 2 June 2014 at the Office of NBTC.
  - Organizing workshop on “Knowledge Sharing on Telecoms Price Regulation among ASEAN Community” during 20 - 21 November 2014 at the Sukosol Hotel, Bangkok. The participants to the workshop consisted of representatives from telecommunications regulators in ASEAN countries, telecommunications business operators, the executives and staff of the Office of NBTC.





# 4

*Major Performances of the  
Office of NBTC in 2014*







## The Management of the Office of NBTC in 2014

In 2014, the Office of NBTC had performed tasks under the authority and responsibility prescribed by the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010) such as setting up the strategic plan of the Office of NBTC, the preparation of the annual expenditure budget of the Office of NBTC, organization development, monitoring the use of spectrum, complaints receipt and consideration on the use of spectrum, the operation of broadcasting, television, and telecommunications services, etc. The major performances are as follows:

### 1. Setting up the strategic plan of the Office of NBTC

The Office of NBTC has its important roles in supporting the performance of the NBTC according to the law by implementing the NBTC's policies. The official policy models and instruments of the NBTC which are under the provisions of relevant laws are the Master Plans in which the NBTC have issued the NBTC Notifications on Spectrum Management Master Plan (2012), Broadcasting Master Plan No.1 (2012-2016), and Telecommunications Master Plan No.1 (2012-2016) for being guidelines in the management according to the power and responsibility of the NBTC for the tangible implementation. The Office of NBTC also set up the Strategic Plan of the Office of NBTC to be the guideline framework for implementation in 3 years (2014 - 2016) by considering roles, power and duties of the Office of NBTC in supporting the work of the NBTC as stipulated by law, and to implement the NBTC's policies on the regulation of broadcasting, television, radiocommunications and telecommunications services. The strategic plan of the Office of NBTC consists of vision, mission, core values, strategic issues, objectives, and the follow-up and evaluation as follows:

#### Vision

“The Office of NBTC is a leading organization in ASEAN in the regulation and development of communication services for the sustainable development of the country”

#### Mission

“The Office of NBTC has supported the NBTC in spectrum management, licensing and regulating the broadcasting, radiocommunications and telecommunications services in an efficient and transparent manner and be recognized in ASEAN level”.



## Core Value

To achieve the above vision effectively, the Office of NBTC has created corporate culture that is conducive to the operation of the Office by setting core values for those involved in the operation of the Office of NBTC to be used as guidelines for jointly working constructively and coordinating among each other for the successful outcome. The Office of NBTC has also promoted the corporate culture as being “**fast, accurate, team work, having good governance for the achievement of the vision of the Office of NBTC**”.

Core value of the Office of NBTC is as follows:

Thai Version	English Version	
ก้าวไกลสู่สากล	N	Navigating to International
สร้างสรรค์นวัตกรรม	B	Building Innovation
ทำงานเป็นทีม และโปร่งใส	T	Teamwork & Transparency
เชี่ยวชาญอย่างมืออาชีพ	C	Consistent Professionalism

## Strategic Issues

- Strategy 1** To Strengthen Administration in Line with Good Corporate Governance
- Strategy 2** To Manage Spectrum Allocation Efficiently, Consumer Protection, Create Equality in Communication Infrastructure Access and Digital Opportunity
- Strategy 3** To Develop Competition, Fairness and Efficiency in Communication Resource Management toward Thailand's Digital Community
- Strategy 4** To Support and Promote Innovation and Networking



## Objectives

1. Being the high performance organization (HPO), with good corporate governance and successful operation
2. Clients of the Office of NBTC are satisfied with the services provision of the Office of NBTC
3. Operational processes are efficient at the international level
4. Management factors are available
5. Communications services generate utmost social benefit and equality for the people and the public
6. Clients are satisfied with to be protected of basic rights by the Office of NBTC
7. National benefits in digital economy
8. Users of communications services have increased
9. Society and networks have confidence in the operation of the NBTC
10. The public have cooperated in the operation of the NBTC

## 2. The follow-up and evaluation

The Office of NBTC will follow-up and evaluate outcome of the Strategic Plan of the Office of NBTC (2014 - 2016) in overall yearly for following-up the progress of the implementation and analyzing the success of the Strategic Plan based on indicators and targets, prepare the annual report of the follow-up and evaluation on the implementation of the Strategic Plan of the Office of the NBTC and propose to the NBTC and the Office of NBTC to be used as information for the improvement of the work efficiency and the development of organization to achieve the vision as well as to be used for the preparation of the Strategic Plan of the Office of NBTC in the next period.

## 3. The preparation of the annual expenditure budget of the Office of NBTC

The Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010) Section 20 has stipulated that the NBTC shall approve the budget of the Office of NBTC budgets; however, for being deliberate, transparent, and efficient expenditure, the NBTC has appointed a Sub-committee to consider budget of the Office of NBTC consisted of the Director of Bureau of the Budget, and several qualified expertise from the Bureau of the Budget with responsibilities to scrutinize



1



the annual expenditure budget of the Office of NBTC to be used appropriately and necessarily before proposing to the NBTC for approval. In 2014, the NBTC has approved the guideline for preparing the expenditure budget in 2014 and assigned the Office of NBTC to prepare details of the proposed budget in 2014 to be in line with the guideline for preparing the expenditure budget and annual calendar for expenditure budget of the Office of NBTC and relevant regulations. The NBTC also acknowledged the estimation of revenue of the Office of NBTC in 2014 and on 12 February 2014 the NBTC had approved the annual expenditure budget in 2014 of the Office of NBTC as details shown in Part 7: Office of NBTC's Work Plan/Projects and Budget Plan in 2015.

#### 4. Organization development

##### 1) Setting up the NBTC KM Roadmap in 3-year period (2014 - 2016)

Knowledge body is a crucial basic factor that the staff and employees of the Office of NBTC need to be learning and self-developed constantly in order to keep pace with trends of transformation in the globalization towards digital society for survival and sustainable growth both for the organization and themselves. Knowledge Management (KM) system therefore is a powerful tool that helps support the organization with a good knowledge management system, ability to create new innovation continuously which generates value added in the work, including the organization development towards a learning organization, high performance organization, and happiness organization.

The Office of NBTC has set up the NBTC KM Roadmap in 3-year period (2014 - 2016) to be used as guidelines for knowledge management of the Office of the NBTC in 3 years (2014-2016) and the indicator to measure the performance of the Office of NBTC in 2014. The major essences are knowledge management (KM) and guidelines for developing personnel and KM roadmap of the Office of NBTC. In 2014, the Office of NBTC has implemented the NBTC KM Roadmap in the first year by having appointed CKO and KM Team, preparing the calendar of KM activities, publicizing activities, organizing trainings and seminars on KM for the targeted staff and employees, as well as implementing KM activities to encourage learning behavior culture. After that the CoPs have been set up for gathering and selecting knowledge body in order to create channels for knowledge access. In addition, knowledge database has also been built to be a platform for exchanging knowledge within the Office of NBTC. The Knowledge Management has been cooperated and successful.



1

1 Opening ceremony  
of Knowledge  
Management (KM)  
System





## NBTC KM Roadmap in 3-Year Period (2014 - 2016)

1 <sup>st</sup> Year (2014 )	2 <sup>nd</sup> Year (2015)	3 <sup>rd</sup> Year (2016 )
Objectives	Objectives	Objectives
<ol style="list-style-type: none"> <li>1. To raise awareness and understanding of knowledge management (KM)</li> <li>2. To establish the Community of Practice (CoP)</li> <li>3. To gather knowledge body under the KM processes</li> <li>4. To create channel for knowledge access/transfer</li> <li>5. To exchange knowledge among each other</li> <li>6. To promote a learning culture</li> </ol>	<ol style="list-style-type: none"> <li>1. To enhance understanding and raise awareness of KM</li> <li>2. To expand the area of CoP</li> <li>3. To gather knowledge body under the KM processes and knowledge database</li> <li>4. To promote mentors</li> <li>5. To have the best practice</li> <li>6. To promote/develop a learning culture</li> <li>7. To link KM system to other system</li> </ol>	<ol style="list-style-type: none"> <li>1. To expand/raise perception, understanding and awareness of KM process</li> <li>2. To gather knowledge body under the KM processes and knowledge database</li> <li>3. To expand the area of CoP</li> <li>4. To have more expert directory/mentors</li> <li>5. To have more best practices</li> <li>6. To promote the invention of innovation</li> <li>7. To promote/develop a learning culture</li> <li>8. To link KM system to other system</li> <li>9. To have a learning center</li> </ol>
Activities	Activities	Activities
<ol style="list-style-type: none"> <li>1. Appointing the CKO and KM Team</li> <li>2. Setting calendar of KM activities</li> <li>3. Publicizing KM activities</li> <li>4. Organizing trainings/seminar on KM for target groups</li> <li>5. Conducting KM activities/encouraging learning culture</li> <li>6. Setting up CoPs</li> <li>7. Gathering knowledge body, selecting knowledge body</li> <li>8. Creating channel for knowledge access/transfer</li> <li>9. Establishing knowledge database</li> <li>10. Exchanging knowledge within organization/ between organizations</li> <li>11. KM Plan in 3-Year Period (2014 - 2016)</li> <li>12. KM Day</li> </ol>	<ol style="list-style-type: none"> <li>1. Revise/improve KM Team/3-Year KM Plan</li> <li>2. Publicizing KM activities</li> <li>3. Organizing intensive trainings/seminar on KM</li> <li>4. Establish/expand the area of CoPs</li> <li>5. Provide Expert Directory, Mentor</li> <li>6. Establishing knowledge database</li> <li>7. Creating channel for knowledge access/transfer</li> <li>8. Search/present on the best practice</li> <li>9. Exchanging knowledge within organization/ between organizations/NBTC/other organizations</li> <li>10. KM Clinic Day/KM Day</li> <li>11. KM Award</li> <li>12. Enhancing/campaigning learning behavior/culture</li> <li>13. Linking KM system to other system</li> </ol>	<ol style="list-style-type: none"> <li>1. Revise/improve KM Team/3-Year KM Plan</li> <li>2. Publicizing KM activities</li> <li>3. Organizing intensive trainings/seminar on KM</li> <li>4. Establish/expand the area of CoPs</li> <li>5. Provide Expert Directory, Mentor, Trainer</li> <li>6. Establishing knowledge database/new innovation</li> <li>7. Expanding area of the best practices</li> <li>8. KM Clinic Day/KM Day/Innovation Day</li> <li>9. KM Award/Innovation Award</li> <li>10. KM Hall of Fame</li> <li>11. Enhancing/campaigning learning behavior/culture</li> <li>12. Linking KM system to other system</li> <li>13. Establishing learning centers</li> </ol>



## 2) Development of competency of the staff and employees of the Office of NBTC

The Office of NBTC has carried out the project for promoting competency communications for expression of the performance efficiency of the Office of NBTC staff, phase 1, in order to enhance knowledge, skills, abilities, expertise, motivation and the proper characteristics of the staff and employees of the Office of NBTC so that they can work successfully by applying 5 core competencies and 4 managerial competencies which will create benefits to society and the country in overall with the better communication, effectiveness, recognition, awareness raising, and having a clear understanding of the core competencies and managerial competencies, as well as to encourage the love and understanding of the organization, work ambition, and organization development for sustainable growth of the organization in long-term (employee engagement) for being unity according to the vision of the Office of NBTC.

1 Project on the promotion of competency communication for expression of the performance efficiency of the Office of NBTC staff (COMPETENCY)



## Follow-Up and Monitoring of the Spectrum Broadcasting, Televisions and telecommunications Services

In 2014, the Office of NBTC had monitored the use of spectrum in the broadcasting and telecommunications services to ensure that the spectrum has been used worthily for the utmost benefit and without interference and to control the use of radio spectrum to be in line with criteria, provisions and conditions of the license. In 2014, the Office of NBTC has set up plan for follow-up and monitoring the use of spectrum in broadcasting and telecommunications services which can be divided into the plan for monitoring radio frequency possession of 567,995 frequencies, the plan for monitoring radio frequency propagation standard of 4,956 frequencies, the plan for monitoring and resolving radio frequency interference for 1,500 frequencies, and the plan for monitoring unauthorized spectrum of 1,200 frequencies. The result of the spectrum monitoring is shown in Table 62 and Chart 15 - 19.

**Table 62:** Follow-up and Monitoring the Use of Spectrum in Broadcasting and Telecommunications Services in 2014.

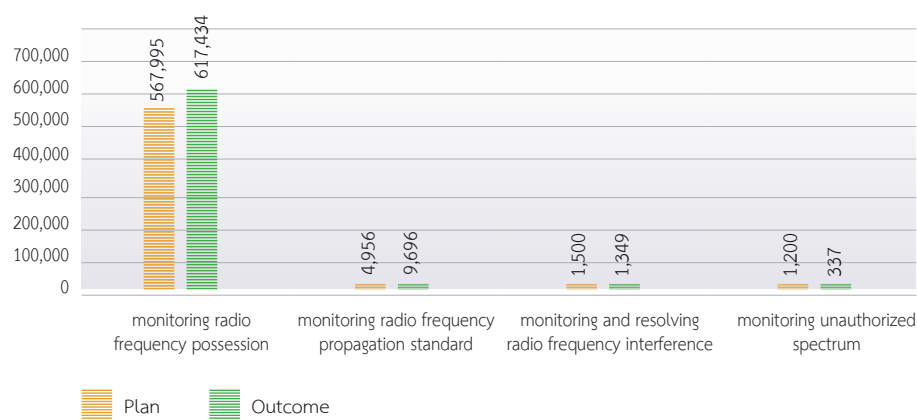
Unit: frequency

No.	Activities	Plan	Result
1	monitoring radio frequency possession	567,995	617,434
2	monitoring radio frequency propagation standard	4,956	9,696
3	monitoring and resolving radio frequency interference	1,500	1,349
4	monitoring unauthorized spectrum	1,200	337

Source: Radio Monitoring and Planning Bureau

Remarks: The monitoring and resolving radio frequency interference and monitoring unauthorized spectrum have less the result than scheduled due to less radio interference and unauthorized use of frequencies and the Office of NBTC has monitored continuously. Therefore, the statistics of illegal use of unauthorized frequencies are obviously less than the past which resulting in the reduction of frequencies interference.

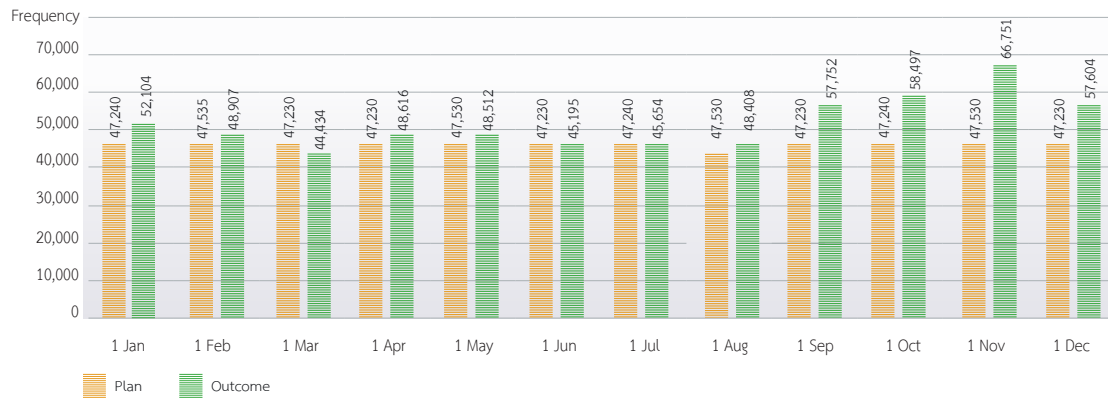
**Chart 15:** Follow-up and Monitoring the Use of Spectrum in Broadcasting and Telecommunications Services in 2014



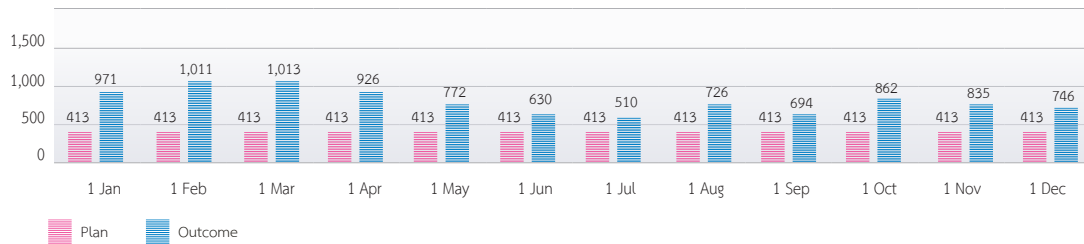
Source: Radio Monitoring and Planning Bureau



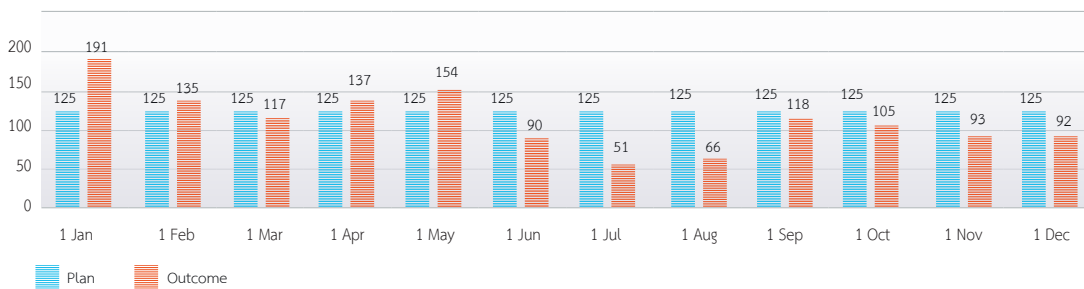
**Chart 16:** Comparison of Plan and Result of the Radio Frequency Possession Monitoring in 2014



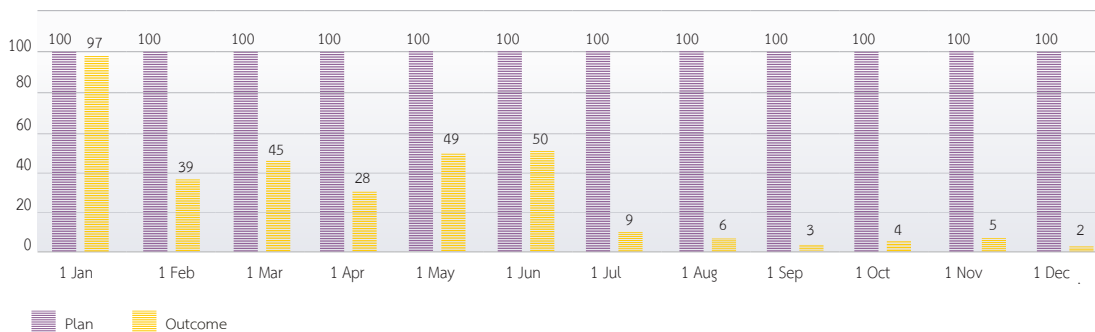
**Chart 17:** Comparison of Plan and Result of the Radio Frequency Propagation Standards Monitoring in 2014



**Chart 18:** Comparison of Plan and Result of Frequency Interference Resolution in 2014



**Chart 19:** Comparison of Plan and Result of Unlicensed Frequency Monitoring in 2014

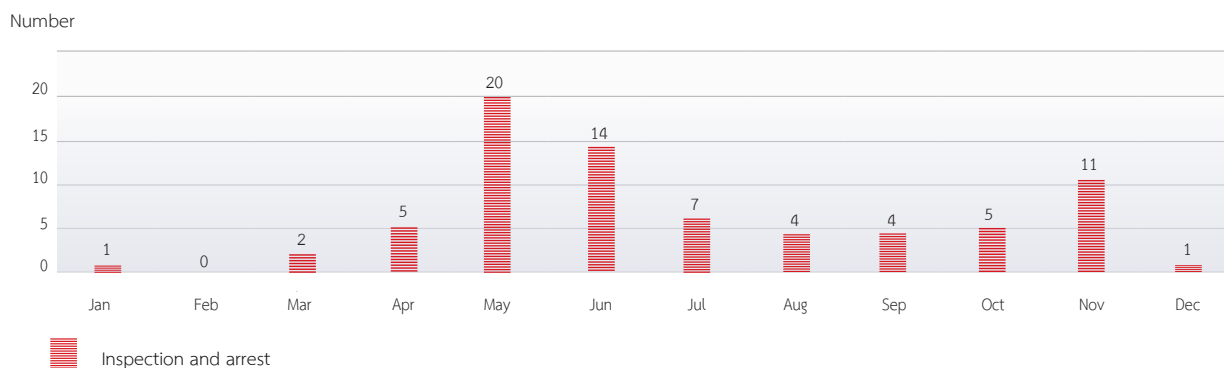


Source: Radio Monitoring and Planning Bureau





**Chart 20:** Statistics of the Inspection and Arrest of Radio Broadcasting Stations for Trial Operation who made offense in 2014



The Office of NBTC, in cooperation with the police officers had inspected and arrested the radio broadcasting stations for trial operation due to illegal broadcasting without the applying for providing the trial broadcasting service and causing the propagation which interfered aviation communication network and other communications networks. In 2014, 74 radio broadcasting stations had been inspected and arrested as shown in Table 63 and Chart 20.

**Table 63:** Statistics of the Inspection and Arrest of Radio Broadcasting Stations for Trial Operation who made offense in 2014

Activities	Year 2014												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Inspection and Arrest	1	0	2	5	20	14	7	4	4	5	11	1	74

Source: Radio Monitoring and Planning Bureau



## Complaints Receipt on Broadcasting and Telecommunications Services

In 2014, the Office of NBTC had resolved the complaints of telecommunications users or those who suffered from the use of telecommunications services, and the complaints or suggestion in broadcasting and television services related to the provision of advertisement on food, drugs and health products such as illegal advertisement of food, drugs, and health products or the act in any way which may be deemed to exploit the consumers in broadcasting and telecommunications services including the operation in response to the complaints in case of TV programs and contents as follows:

### 1. Complaints management and recommendations related to the actions which may be deemed to exploit the consumers in broadcasting and television services

To resolve complaints and recommendations related to the actions which may be deemed to exploit the consumers in broadcasting and television services such as the provision of services and advertisement on food, drugs and health products, in 2014 the Office of NBTC had considered under the provisions of relevant NBTC Notifications consisted of the NBTC Notification on Procedure and Timeframe for Consideration of the Complaints or Requests in Broadcasting and Television Services B.E.2555 (2012) and the NBTC Notification on the Actions which may be deemed to exploit the Consumers in Broadcasting and Television Services B.E.2555 (2012), and the Office of NBTC Notification on Guidelines for the Consideration of the Action which may Exploit the Consumers in Broadcasting and Television Services under Item 5 (12) of the NBTC Notification regarding the Action which may Exploit the Consumers in Broadcasting and Television Services B.E.2555 (2012). From the following Table, it is clearly seen that 90.32 percent of the total complaints and recommendations had been resolved/completed and some examples of the complaints are the complaints in the case that the users were unable to watch the World Cup for all 64 matches, the complaints concerning satellite Set-top Box, the complaints on the provision of satellite TV programs via foreign satellites, etc. The focus groups were also held, in cooperation with the satellite Set-top Box suppliers to seek for the guideline for consumer protection and resolving problems from the use of satellite Set-top Box. Details are shown in Table 64 and Chart 21.

**Table 64:** Statistics of complaints consideration and recommendation concerning the action which may be deemed to exploit the consumers in broadcasting and television services

Type of service	Complaints and recommendation	Resolved/completed		In process	
		No.	%	No.	%
Satellite TV	108	99	91.67	9	8.33
Cable TV	8	7	87.50	1	12.50
Free TV	2	1	50.00	1	50.00
Radio	4	3	75.00	1	25.00
Other	2	2	100.00	-	-
<b>Total</b>	<b>124</b>	<b>112</b>	<b>90.32</b>	<b>12</b>	<b>9.68</b>

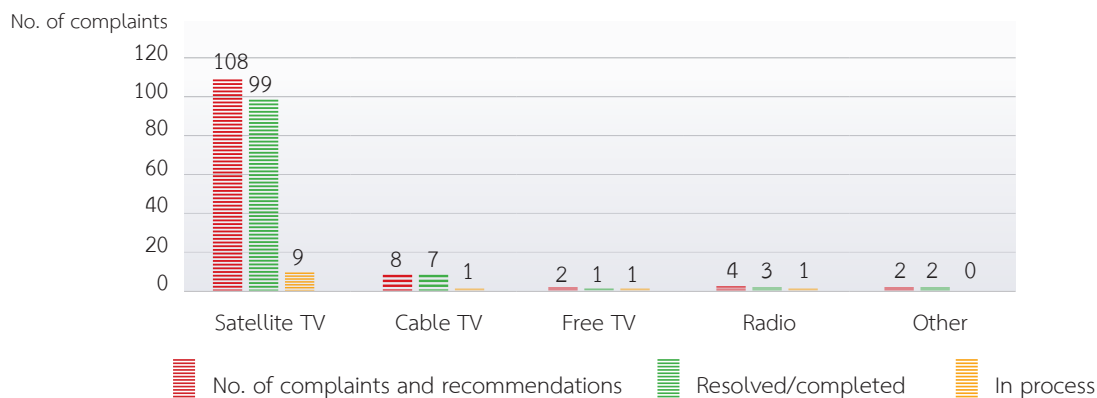
Remarks: Data taken during 1 Jan - 30 Sep 2014 due to the operation framework were about 2 - 3 months.

However, during 1 Oct - 31 Dec 2014 there were 55 complaints/recommendations.

Source: Broadcasting Consumer Protection Bureau



**Chart 21:** Statistics of Complaints Consideration and Recommendation concerning the Action which may be deemed to Exploit the Consumers in Broadcasting and Television Services



Source: Broadcasting Consumer Protection Bureau

- The consideration of complaints and recommendations received concerning programs and contents had been done under the Broadcasting Business Act B.E.2551 (2008) Section 37 since the program containing content which be within the scope of Section 37 shall be considered as a “forbidden” content to broadcast, including the relevant NBTC Notifications comprising the NBTC Notification on Criteria for Programming for the Provision of Broadcasting or Television Services B.E.2556 (2013) (and No. 2), the Office of NBTC Notification on Guidelines for Setting Rates of TV Programs under the NBTC Notification on Criteria for Programming of Radio Broadcasting or Television Services B.E.2556 (2013), the NBTC Notification on Procedures and Resolution Period for Complaints Consideration in Broadcasting and Television Services, the NBTC Notification on Criteria and Methods for Gathering Facts concerning the Illegal Actions in Broadcasting and Television Services in which the Administrative Sanction are applied B.E.2556 (2013), and other Laws such as Child Protection, Alcohol, Gambling, etc. Some examples of the complaints on program schedules and contents are such as the case that some channels broadcasted the movies with contents that have serious impact on mental deterioration of people, the presentation of program content that have an impact on public order or public morals, or have serious impact on mental deterioration, and the presentation of program content which are prohibited according to Section 37 of the Broadcasting Business Act B.E.2551 (2008) and without carefulness in monitoring or suspending the broadcasts, and so on. However, from the following Table, it is clearly seen that 97.73 percent of the complaints and recommendations could be resolved/completed within the given period. Details are shown in Table 65 and Chart 22.



**Table 65:** Statistics of complaints consideration and recommendation concerning programs and content

Type of service	Complaints and recommendation	Resolved/completed		In-process	
		No.	%	No.	%
Free TV	19	19	100.00	-	-
Cable TV	-	-	-	-	-
Satellite TV	12	11	91.67	1	8.33
Radio	3	3	100.00	-	-
Community radio	8	8	100.00	-	-
Others	2	2	100.00	-	-
<b>Total</b>	<b>44</b>	<b>43</b>	<b>97.73</b>	<b>1</b>	<b>2.27</b>

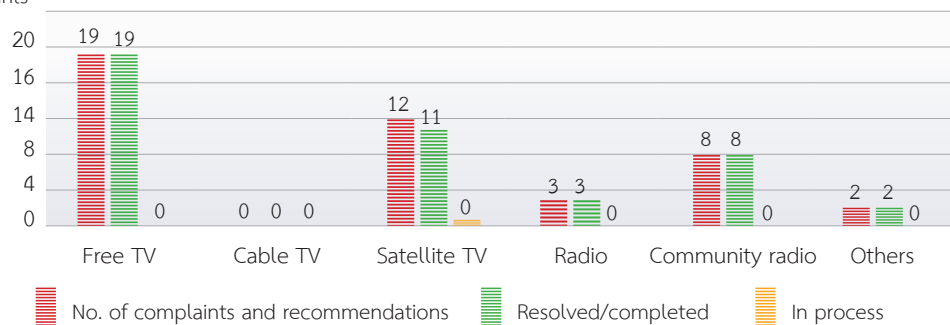
Remarks: Data taken during 1 Jan - 30 Sep 2014 due to the operation framework were about 111 days

However, during 1 Oct - 31 Dec 2014 there were 17 complaints/recommendations.

Source: Broadcasting Consumer Protection Bureau

**Chart 22:** Consideration and Recommendation of Complaints on Programs and Content

No. of complaints



Source: Broadcasting Consumer Protection Bureau

- Having provided information to the public via CALL CENTER 1200 in 2014 for totally 246,651 issues in which most of inquiries were about the broadcasting and television services in consumer protection especially the distribution of digital TV coupons. Details are shown in Table 66.





**Table 66:** Provision of Information to the Public through Call Center 1200 in 2014

No.	Type of Inquiry in 2014	Total	Percentage
1	<b>Inquiry on telecommunications services</b>	15,836	100
	Licenses	12,657	80
	Standard type approval	791	5
	Telecommunications resource	617	4
	Consumer protection	31	0.7
	Follow-up of the progress	23	0.3
2	<b>Inquiry on broadcasting/television services</b>	106	1
	Broadcasting services	980	6
	Television services	631	3
	Consumer protection (distribution of digital TV coupons)	224,490	100
3	<b>Inquiry on policy</b>	223,155	98.9
	Number portability	244	0.08
	SMS cancellation	91	0.02
4	<b>Inquiry on laws</b>	1,000	1
	Telecommunication laws	1	100
5	<b>Inquiry on other organizations</b>	1	100
	Advice/channel for contacting telecommunication services	0	0
	Advice/channel for contacting Broadcasting services	0	0
<b>Total</b>		<b>246,651</b>	

Source: Data Operation Center Bureau



## 2. Complaints handling in telecommunications services

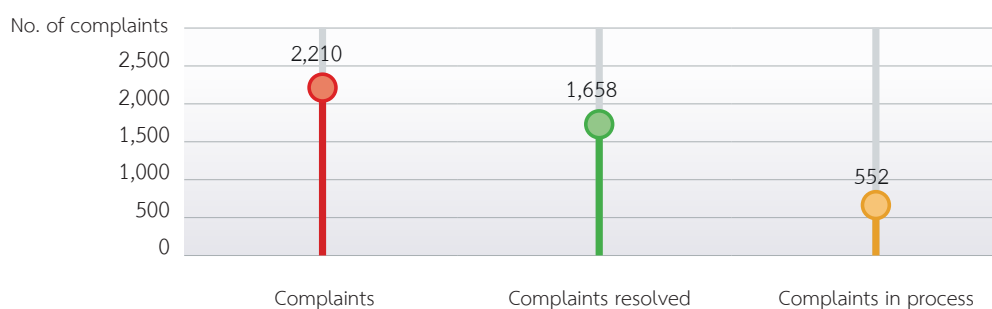
- Having received the complaints of telecommunications service users or those who suffered from the provision of telecommunications services under the NTC Notification on Procedure for Receipt and Consideration of Service Users' Complaints from 1 January 2014 to 31 December 2014 for totally 2,210 complaints, in which 1,658 complaints were completely resolved or accounted for 75.02 percent, and 552 complaints are in the process of consideration or accounted for 24.98 percent. Details are shown in Table 67 and Chart 23 - 24.

**Table 67:** Status of Complaints Resolution Categorized by Services in 2014

Type of services	Complaints		Resolved		In-process	
	No.	Percent	No.	Percent	No.	Percent
Mobile Phones	1,648	74.57	1,292	78.40	356	21.60
Internet	405	18.33	309	76.30	96	23.70
Radiocommunications station	108	4.89	22	20.37	86	79.63
Fixed-line	42	1.90	28	66.67	14	33.33
PCT	1	0.05	1	100.00	0	0.00
Public phones	1	0.05	1	100.00	0	0.00
Others	5	0.23	5	100.00	0	0.00
<b>Total</b>	<b>2,210</b>	<b>100.00</b>	<b>1,658</b>	<b>75.02</b>	<b>552</b>	<b>24.98</b>

Source: Telecommunications Consumer protection Bureau

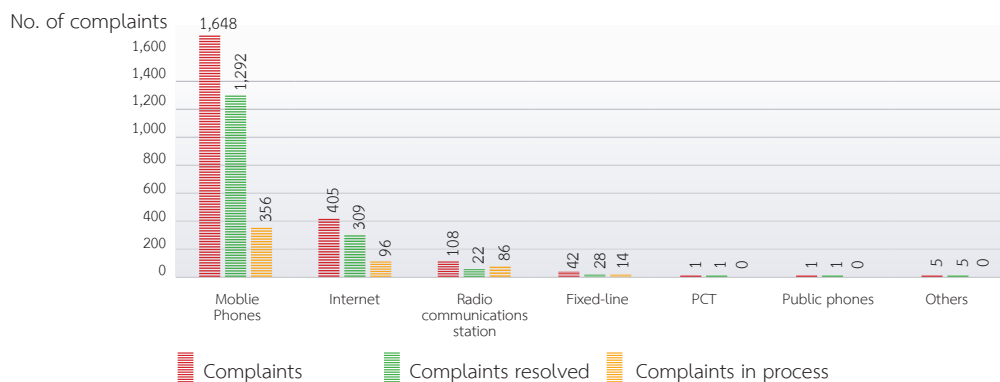
**Chart 23:** Status of Complaints Resolution in 2014



Source: Telecommunications Consumer protection Bureau



**Chart 24:** Status of Complaints Resolution Categorized by Services in 2014



Source: Telecommunications Consumer Protection Bureau

- For the complaints handling on international mobile telecommunication service in the frequency band of 2.1 GHz, in 2014, (included in the type of mobile phone services complaints) the Office of NBTC had received totally 73 complaints, in which 58 complaints have been officially received by the Office of the NBTC, while other 15 complaints have not yet officially received as complaints due to insufficient documents for further action. The most complaints are about speed quality of signal (31 complaints), followed by incorrect billing (16 complaints) and validity of pre-paid mobile phone usage (11 complaints) respectively. In addition, all complaints could be categorized by service providers, in which 25 complaints were on AWN, 22 complaints were on DTN and 2 complaints were on RF. Details are shown in Table 68.

**Table 68:** Complaints Resolution Categorized by Issues

No.	Type of issues	Service providers				Total
		AWN	DTN	RF	TOT	
1	Reduction of 3G service charge for 15 percent	0	0	0	0	0
2	Speed quality of signal	10	14	2	5	31
3	Traffic of 3G data services was limited	0	0	0	0	0
4	Validity of pre-paid mobile phone usage	1	0	0	10	11
5	Incorrect billing	7	8	0	1	16
Total		18	22	2	16	58

Source: Telecommunications Consumer Protection Bureau



- The Office of NBTC has carried out its mission on dispute resolution under the NBTC Regulation regarding Dispute Resolution between Telecommunications Business Licensee and Complainant B.E.2555 (2012) by focusing on the arrangement of providing dispute mediation as requested by the complainant, promotion and dissemination of alternative option of dispute resolution especially the mediation and dispute resolution, preparation of directory and expression of mediation case, making report on information and statistics on the mediation service as well as the evaluation of the mediation and monthly propose to the NBTC for acknowledgement. Moreover, the Office of NBTC has prepared the registration and list of mediators and coordinated with other organizations concerning the methods for carrying out alternative dispute resolution process, including facilitated the parties in arranging the dispute mediation under the NBTC Regulation. During 1 January - 31 December 2014, there are 276 complaints that the parties had requested for a mediation process which can be divided into 4 cases as shown in Table 69.

**Table 69:** Complaints that the Parties had requested for a Mediation Process

	Type	No. of Complaints	Result of Mediation			
		276	Success and resolved	Percent	Failure	Percent
1	Complaints which have been in the mediation process	20	18	90	1*	10
2	Complaints that both parties had negotiated and ended the dispute before mediation	102	-	-	-	-
3	Complaints that any party refuse to be in mediation process and requested for further proceeding under the NTC Notification on Procedure for Receipt and Consideration of Service Users' Complaint	105	-	-	-	-
4	Complaints that are in the process of consideration of any party to be in mediation process	49	-	-	-	-

Remarks \* A complaint which was failed to mediate, will be further proceeded under the NTC Notification on Procedure for Receipt and Consideration of Service Users' Complaint

Source: Telecommunications Consumer Protection Bureau





The Issues that were complained and the parties had requested for a Mediation Process in 2014 are 20 issues as shown in Table 70.

Table 70: Issues that were complained and the parties had requested for a Mediation Process

	Issues that were complained and the parties had requested for a mediation process	No. (issues)
1	Incorrect billing of roaming service	3
2	Service charge is not based on an maximum rate.	3
3	Incorrect billing	2
4	Mobile number portability	2
5	Being charged from unsubscribed SMS service	1
6	The user wanted to cancel internet service	1
7	Mobile phone base station installation	1
8	Being charged for the paid service after service cancellation	1
9	Being charged for the service during service suspension	1
10	Being charged for the internet service that the user was unable to access to the internet	1
11	Problem on the termination of 1800 MHz concession	1
12	Unable to subscribe new number (SIM card)	1
13	Number in use was violated by re-registration	1
14	Seizures of balance in the system after canceling service.	1
Total		20

Source: Telecommunications Consumer Protection Bureau



## Management of the Broadcasting and Telecommunications Research and Development Fund for the Public Interest

The Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010) Section 52 has stipulated that there shall be a fund established within the Office of NBTC called the Broadcasting and Telecommunications Research and Development Fund for the Public Interest, with 5 objectives as follows:

1. Manage the Fund for people to have universal access to services
2. Promote and support research and development
3. Promote and support human resource development
4. Support, promote, and protect consumers; and
5. Allocate funding for the Safe and Creative Media Development Fund

The Fund Management Committee has been appointed on 20 January 2012 consisting of 11 members as follows: the Chairman of the NBTC as the chairperson; 4 representatives from public agencies: Permanent Secretary of the Office of the Prime Minister, Secretary-General of the National Economic and Social Development Board, Director-General of Comptroller's Department, Director of the National Electronic and Computer Center; 5 experts who have knowledge and experiences in areas related to the Fund's objectives, and the Secretary-General of the NBTC as a member and secretary. Later on, on 9 July 2014, the National Council for Peace and Order (NCPO) had issued the NCPO Announcement No.80/2014 on the Amendment of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services which contains the significant changes in the objectives and composition of the Fund Management Committee as follows:

1) To add another objective of the Fund in Section 52 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010) as follows: "(6) Promote support budget to the Ministry of Finance so that the Ministry of Finance can borrow money from the Fund to be used in other affairs of the state for the public benefit".

2) To abolish the Fund Management Committee in Section 54 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010), and replace by appointing new Fund Management Committee consisting of 9 members as follows: the Chairman of the NBTC as the chairperson; 6 representatives by position from public agencies: Permanent Secretary of the Office of the Prime Minister, Permanent Secretary of Ministry of Defense, Director of Budget Bureau, Secretary-General of the National Economic and Social Development Board, Director-General of Comptroller's Department, and Director of the National Electronic and Computer Center; and 2 experts who have been selected by the Fund Management Committee by position, and the Secretary-General of the NBTC as a member and secretary.



The duties and responsibilities of the Fund Management Committee are to provide recommendations related to the allocation of the Fund for expenditure according to the objectives to the NBTC for its approval, disclose details of the Fund allocation to the public through electronic media of the Office of NBTC, and set up regulations related to the maintenance, expenditure, financial report and accounting system of the Fund and the operation of the Fund Management Committee. The Office of NBTC shall be responsible for the administrative work of the Fund Management Committee. List of the Fund Management Committee is shown in Table 71.

**Table 71:** List of Management Committee of the Fund

	Name	Position
1	Air Chief Marshal Thares Punsri Chairman of the NBTC	Chairman
2	Permanent Secretary of Prime Minister's Office	Member
3	Permanent Secretary of Ministry of Defense	Member
4	Director of Budget Bureau	Member
5	Secretary General of National Economic and Social Development Board	Member
6	Director-General of the Comptroller's Department	Member
7	Director of National Electronic and Computer Technology Center	Member
8	Prof. Dr.Nilawan Petcharaburanin, Expert	Member
9	Dr. Rom Hiranpruk, Expert	Member
10	Mr. Takorn Tantasith Secretary-General of the NBTC	Member and Secretary
11	Mr.Trirath Viriyasirikul Deputy Secretary-General of the NBTC	Assistant Secretary

## 1. Fund Management

The Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010) Section 55 stipulated that the Fund Management Committee shall have the duties and powers in the management of the fund and provide recommendations on the fund allocation for the objectives outlined in Section 52 to the NBTC for its approval. In the case where the NBTC's opinions differ from those of the Fund Management Committee, the NBTC shall give reasons for further consideration.

The Fund Management Committee shall disclose details of fund allocation and performance under paragraph one to the public through electronic media of the Office of NBTC by giving information about request entities and recipients including the total amount of funds allocated.



Maintenance, expenditures, financial reports and accounting system shall be in accordance with the rules prescribed by the Fund Management Committee.

#### 1) Policy and Strategic Plan

The Fund Management Committee has set up policy direction of the Fund management by formulating the policy and strategic plan of the Fund (2014-2016) to be used as guideline framework for the Fund management and allocation for the stability and the response to the requirements of the citizen and operators of the broadcasting, television, and telecommunications services for the public benefit, as well as keeping up-to-date with rapid change of technology, economy and society. The mechanism to support the work of the Fund Management Committee includes the Sub-committee, working groups, and the Research and Development Fund Bureau.

In order to efficiently perform the duties to support the Fund's mission and be in line with the changing environment, the Fund Management Committee has set up its vision, mission, objectives, goals and indicators including strategies in 5 areas for accommodating the implementation of tasks, activities and projects to meet the objectives of the Fund as follows:

#### ● Vision

To be a push mechanism and support the citizen to be protected and able to utilize the broadcasting, television and telecommunications services for public interest thoroughly with fairness and transparency.

#### ● Mission

- (1) Provide advices and recommendations on the Fund allocation to the NBTC for supporting the citizen to have access to broadcasting, television and telecommunications services, develop communication resources, research and development, media literacy, frequency usage technology, information technology, supporting technology for the disabled, the elderly, and the underprivileged, as well as telecommunications industry and downstream industry, human resources development, including providing support to the institution that performs the duty of setting ethical and professional standards or legal professions in broadcasting and television services laws, consumers protection, and support the implementation of legal operation under the Act on Safe and Creative Media Development Fund for the worthiness and efficiency.
- (2) Disclose details of fund allocation to the public through electronic media of the Office of NBTC.
- (3) Manage the Fund in maintenance, expenditure, accounting, accounting system, financial report, and audit finance and account to be transparent and accountable, stable and self-reliant.
- (4) Monitor and evaluate the project that received funding support.





## Strategic Plan of the Fund (2014-2016)



**Being mechanism for driving and supporting the citizen to be protected and able to utilize the broadcasting, television and telecommunications services for the public benefit in a thorough, fair and transparent manner.**

Propose recommendations on the Fund monetary allocation under the objectives to the NBTC.

Disseminate information on the Fund monetary allocation and the operation to the public

Manage the Fund to be transparent, accountable, secure, and self-reliant

follow-up and evaluate the outcome of the projects supported by the Fund

### Objectives

Provide the support to the public to be able to universal access to the broadcasting, television and telecommunications services, and promote communities as well as support community services operators under Section 51

Promote and support the development of communication resources, research and development in broadcasting, television and telecommunications services, including the ability for media literacy, technology, spectrum usage, information technology, facilities for the disabled, the elderly or the disadvantaged, as well as telecommunications industry and related industries.

Promote and support the development of human resources in broadcasting, television and telecommunications, and information technology, as well as the operation of organizations with duties to set up the ethical standards according to the law.

Support, promote and protect the consumers in broadcasting, television and telecommunications services

Support the operation under the Act on Safe and Creative Media Development Fund by allocating money to the Safe and Creative Media Development Fund

provide financial support to the Ministry of Finance by allowing the Ministry to borrow money from the Fund to be used in the government service for public benefit

### Targets

Target group are able to access the service thoroughly

The communities with its readiness are granted of licenses

Communications resources are developed, and the research are utilized and the service is provided with quality and modern technology

personnels are equipped with potential, knowledge, and able to operate the services efficiently

Organizations who set up the ethical standards have the quality and effective performance

The Fund is able to allocate money for supporting projects according to the intention of laws efficiently

People outside the Plan are able to access to the universal service

The community service operators are able to sustainable operate the service on self-reliant

Consumers are aware of rights and guidelines for filing complaints

People are satisfied with the operation of the Safe and Creative Media Development Fund

The Fund's financial position is secure

## 2) Action Plan of the Fund in 2014

The Research and Development Fund Bureau has set up the Action Plan of the Fund in 2014 in which details are as follows:

### ● Objective

To promote and support the implementation according to objectives of the Fund, Section 52 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication Services B.E.2553 (2010), and framework of budget allocation in 2014 to be efficiently and beneficial to the general public in overall.

### ● Target

#### (1) Financial management

Having provided the maintenance, expenditure, accounting, accounting system, financial report and finance and account audit for the transparency and accountability.



(2) Provision of services to the public

Having promoted and supported money from the Fund to the public according to the objectives of the Fund by

- Allocating budget for the projects proposed by those who requested for financial support from the Fund (Project Type 1) within the overall budget framework of 500 million baht and not more than 125 million baht for each objective.
- Allocating budget for the projects set and announced by the Fund Management Committee (Project Type 2) in order to promote and support the projects under the guidelines and policy framework set by the NBTC or the Fund Management Committee such as promoting and supporting the projects under the USO Plan, promoting and supporting plans or projects under the Master Plans of the NBTC and projects under policy framework of the Fund Management Committee.
- Disclosing information on the Fund's direction for financial promotion and support.

(3) Follow-up and evaluation of the Fund expenditure

Monitoring and evaluating the projects which were promoted and supported by the Fund in order to encourage the efficient expenditure of the Fund as being planned and achieve the objectives.

(4) Learning and development

Developing human resources of the Research and Development Bureau by learning from the past performance in terms of the success and failures and apply to the operation for more efficient. Also, it is proposed to review and improve the policy framework, the issuance of notifications, criteria, procedures related to the Fund expenditure and allocation, and a framework for monitoring and evaluation of the project which were promoted and supported by the Fund as well as the development of operating the Fund to be more efficient and up-to-date with a professional working system.

(5) Mechanism for supporting the operation

The Fund Management Committee has established a mechanism for supporting its operation by appointing 3 Sub-committees as follows:

- The Sub-committee for policies-driven and strategic plans of the research and development of broadcasting, television, and telecommunications services for public interest, supporting the implementation of the policy-driven and strategic plans of the Fund, reviewing relevant rules and regulations, and the Fund management.



- The Sub-committee for scrutinizing projects and budget supported by the Broadcasting and Telecommunications Research and Development Fund for the Public Interest, supporting the operation on scrutinizing projects and budget that have requested for financial support from the Fund.
- The Sub-committee for follow-up and evaluation of the projects of the Broadcasting and Telecommunications Research and Development Fund for the Public Interest, supporting the operation on the follow-up and evaluation of the projects to be smoothly and more efficiently.

3) The major performances in 2014 are as follow:

(1) The financial management of the Fund

Financial status

The money collection of the Fund has been done in the form of deposition in 8 domestic commercial banks of both public and private banks, as defined in the Regulation of the Fund Management Committee regarding the collection, expenditure, accounting and accounting system B.E.2555 (2012) by having provided opportunity for any bank to offer its interest rates and the Fund will consider depositing money in a bank that has offered a reasonable rate of return on the acceptable risk. In 2014, the Fund had received an average rate of return at 2.89 percent, decreasing from the year 2013 which was 3.11 percent due to the reduction of interest rate policy of the Monetary Policy Committee, and the deflation of the national economy. However, the Fund has a cash balance as of 31 December 2014 for totally 27,246 million baht, which increased 308.08 percent from the year 2013. Details are shown in Table 72 and Chart 25.

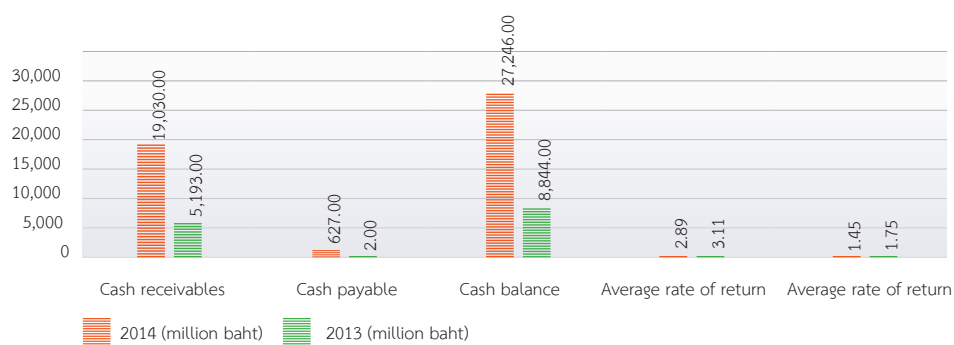
Table 72: Financial Status of the Fund in 2014 compared with the Year 2013

Lists	2014 (million baht)	2013 (million baht)
Cash receipts	19,030.00	5,193.00
Cash disbursement	627.00	2.00
Cash balance	27,246.00	8,844.00
Average rate of return	2.89	3.11
Average deposit rate of return of the 5 ranking commercial banks	1.45	1.75

Source: Research and Development Fund Bureau



**Chart 25:** Financial Status of the Fund in 2014 compared with the Year 2013



Source: Research and Development Fund Bureau

For the accounting, accounting system, and financial report, the Fund has set up the performance manual and internal control on accounting and finance including the monitoring mechanism by the internal audit committee of the Office of NBTC. The Fund has prepared its financial statements to show the results of performance and financial position according to international accounting principles which has been certified by the Office of the Auditor General of Thailand (OAG). In 2014, the total revenue of the Fund was 9,487.37 million baht, more than total revenue in 2013 which was 5,927.71 million baht, or 41.96 percent increase due to the increase revenues especially revenues from the licensees' contributions for the provision of universal services. For the Fund's expenditure, in 2014 there was totally 1,256.93 million baht, more than the expenditure in the year 2013 which was 952.52 million baht or 31.96 percent increase due to an increase of the disbursement of the projects type 2. The Fund's financial status is in a secured position with a debt ratio<sup>5</sup> of 0.36: 1 which is in accordance with the accounting criterion that specified for being less than 2:1, and a current ratio<sup>6</sup> of 45: 1. Moreover, the Fund has its total assets over debts for 20,173.55 million baht. Details are shown in Table 73.

**Table 73:** Results of Operations and Financial Status of the Fund in 2014 compared with the Year 2013

Unit: Million baht

	2014	2013
Operation Statement		
Total revenue	9,487.37	5,927.71
Operating expense	1,256.93	952.52
Percent of expense per revenue	13.25	16.06
Financial Statement		
Cash at bank	27,246.40	8,844.57

<sup>5</sup> Debt Ratio = total liability / total assets

<sup>6</sup> Current Ratio = current assets / current liability





**Table 73:** Results of Operations and Financial Status of the Fund in 2014 compared with the Year 2013 (cont.)

Unit: Million baht

	2014	2013
Current assets	31,441.52	11,991.61
Total assets	31,445.34	11,992.18
Current liability	693.03	951.66
Total liability	11,272.78	1,000.06
Financial Ratio		
Debt Ratio	36.48 percent	8.34 percent
Current ratio	45.07: 1	12.60: 1

Source: Research and Development Fund Bureau

#### Disbursement of the Fund

The Fund had planned for the disbursement in the year 2014 for totally 5,606.64 million baht but was able to disburse for only 1,259.82 million baht or 23 percent mostly because of the project for supporting the public in the transition to digital terrestrial television in which the disbursement was only 14 percent, falling short than plan due to the number of coupon to be exchanged for the Set-top Box was lower than target set, and the delay and complexity of coupon verification procedure for reimbursement. This also included the disbursement of the USO projects 2013 which was only 48 percent as 2 of 5 projects were postponed by the order of the National Council for Peace and Order. Details are shown in Table 74.

**Table 74:** Expenditure of the Fund compared with the Budget Plan

Unit: Million baht

Details	Disbursement plan	Disbursement including committed budget	Percent
<b>Project Type 1 in 2013</b>	19.53	14.61	75
<b>Project Type 2 in 2013</b>			
- Projects under USO Plan in Telecommunications in 2013	380.35	182.74	48
<b>Project Type 2 in 2014</b>			
- Project for supporting the public in the transition to digital terrestrial television	4,836.90	692.61	14
- Financial support to enable the citizen to access the general television services in the “Final World Cup in 2014”	369.86	369.86	100
<b>Total</b>	<b>5,606.64</b>	<b>1,259.82</b>	<b>23</b>



Allocation budget unit: million baht	
Project Type 1	500.00
Project Type 2	17,603.11
Projects under the USO Action Plan in 2014	1,432.25
Projects to support the citizen in the transition to the digital switch over	15,801.00
Supporting the citizen to access the television service for the Final Football World Cup	349.26

## (2) Provision of services to the public

### Conclusion for the Fund expenditure

The Fund Management Committee, by the approval of the NBTC, had given its support to the projects which were in line with the objectives of the Fund for the provision of public services in 2014 as follows:

- Open call for proposal of projects in type 1 in 2014 within the budget framework of 500 million baht for those who were interested to submit project proposals being in line with the objectives of the Fund and beneficial to the public in overall for the Fund allocation according to the NBTC Meeting's Resolution No.3/2014 on 19 March 2014 during 1 May - 23 June 2014. The amount of budget allocation for each project was less than 10 million baht, with not more than 2-year period of implementation. The Fund had received 268 projects requesting for financial support with the total amount of 1,893.42 million baht. At present, the projects are in the process of consideration of the Sub-committee for scrutinizing projects and budget supported by the Fund.
- Fund allocation to the projects in type 2 for the total amount of 17,603.11 million baht, in order to support the provision of services which is beneficial to the public under the policy framework. The major operation is as follows:



- 15 Projects and 1 job under the USO Plan in 2014 for 1,432.25 million baht, which is under the Plan for the Provision of Basic Universal Telecommunications Services and Social Services (2014-2016) of the NTC. However, the projects are now postponed the implementation according to the policy of National Council for Peace and Order and the NBTC Meeting's Resolution No.6/2014 on 25 June 2014.
- Project for supporting the public in the transition to digital terrestrial television within the budget of 15,801.00 million baht has aimed for supporting the discount coupons to purchase the Set-top Box to 22.9 households. The implementation of the project is accordance with the Order of National Council for Peace and Order No.521 dated 29 August 2014 and currently in the process of distributing the coupons. At present, a total of 14.72 million coupons were already distributed in 45 provinces across the country. However, the coupons distribution will be done additionally by the Office of NBTC to the households in areas with a digital TV signal coverage of not less than 80 percent.
- Providing financial support of 369.86 million baht to enable the citizen including the disabled, the people with low income, and the underprivileged, to access the general television services in the "Final World Cup in 2014" during 12 June - 13 July 2014 through TV stations which have provided the general services, Royal Thai Army Radio and Television (Channel 5) and National Broadcasting Services of Thailand (Channel 11), according to the NBTC Meeting's Resolution No.9/2014 on 17 September 2014.
- Disclose of details on the Fund allocation in order to publish information related to the expenditure of the Fund to the public by displaying information of those who requested for the financial support and have been allocated budget from the fund including total allocated money on the projects through electronic media of the Office of Research and Development Fund Bureau, the Office of NBTC at <http://btfp.nbtc.go.th>.
- Dissemination of knowledge body on the direction of providing promotion and financial support of the Fund, so that those involved and the interested people are able to obtain useful information related to the Fund. The activities are as follows:
  - Project on the Fund roadshow to disseminate information and guidelines for applying for financial promotion and support from the Fund, and to provide information, knowledge and understanding which will be beneficial to the public in applying for financial promotion and support from the Fund, especially the online application submission that has been brought into service for the first year. The roadshow was held on 6, 10 and 12 June 2014 in Phitsanulok, Khon Kaen and Songkhla, respectively with 223 participants. Also, an evaluation on satisfaction of the participants was conducted after the completion of the project and it is found that the participants' satisfaction average is good.



- Meeting for clarifying on guidelines for follow-up and evaluation of the projects for those who have been allocated money from the fund, as well as to explain and enhance the understanding of the guidelines and practices of 10 organizations who have been promoted and supported by the Fund for projects in type 1 in 2013, as the Fund Management Committee, by the approval of the NBTC, has approved for a total amount of 32.53 million baht.
- Publishing books for distributing to the public in order to enhance knowledge and understanding and preparing for the transition to digital terrestrial television switch over. The books have also been distributed to government agencies, academic institutions, associations, foundations, and the general public.

(3) Follow-up and evaluation on the Fund expenditure

To efficiently manage the expenditure of the Fund and for the maximum benefit, the Fund Management Committee had its resolution in the Meeting No.4/2011 on 25 November 2014 approved guideline framework, procedures, models, tools and timeframe for following-up and evaluating the project which consisted of 3 approaches: the follow-up of implementation of the projects approved by the NBTC, the evaluation of the projects' outcome, and the evaluation of the Fund's implementation under the Action Plan, and each project shall submit the report of the projects follow-up and evaluation in the following format.

- Project progress report within 15 days starting from the ending date of each quarter
- Annual report on the project implementation within 30 days starting from the ending date of the year
- Final report within 60 days starting from the ending date of the project

(3.1) Status of the follow-up and evaluation of the projects supporting by the Fund in 2014 can be concluded as follows:

- a. Having followed-up of 10 projects that requesting for promotion and financial support of the Fund in type 1 in 2013 which had been approved by the NBTC's Resolution in the special meeting No.2/2013 on 24 December 2013 within the budget of 32.53 million baht, it is found that from the plan on disbursement in 2014 for 19.53 million baht, the actual disbursement was 14.61 million baht or 74.84 percent. In addition, there were 8 projects that had the disbursement as planned while other 2 projects have been delayed of the plan.
- b. Having followed-up the projects under the USO Plan in 2013 in which the Fund Management Committee has its resolution in the meeting No.1/2014 on 31 January 2014 to approve the adjustment of the expenditure plan of 5 projects and 1 task that has planned on the expenditure for 380.35 million baht but the actual disbursement was only 182.74 million baht or 48.05 percent due to the





projects postponement according to the Order of the National Council for Peace and Order to postpone the implementation of the USO Plan and the NBTC Resolution in the Meeting No.6/2014 on 25 June 2014.

- c. Having followed-up the project for supporting the public in the transition to digital terrestrial television within the budget of 15,801 million baht and it is found that the Office of NBTC has started the distribution of digital TV coupons to 22.9 million households since 10 October 2014 onwards. In 2014, the coupons were already distributed for 7.01 million coupons but only 1 million coupons or 14 percent have been disbursement. At first glance, the problem of incomplete documents and evidence was found such as there was no certification of the (copy) of house registration, etc., which resulted in the delay of the coupons disbursement, but those coupons were able to be disbursed within the time limited.
- d. Having followed-up the project for supporting the citizen to access to the provision of general television services in the “Final World Cup in 2014” during 12 June - 13 July 2014, at the amount of 369.86 million baht to the Royal Thai Army Radio and Television (Channel 5) according to the NBTC Resolution in the Meeting No.9/2014 on 17 September 2014. The Channel 5 had already paid for the copyright charge and other expenses to the owner of the copyright and broadcasted the TV program in those times.
- e. Having operated and coordinated with the Ministry of Information and Communications Technology (Ministry of ICT) to return money of 950 million baht to the Fund since the Ministry of ICT has been unable to comply with the memorandum of agreement made with the Office of NBTC regarding the implementation of the project for the provision of broadband services with Wi-Fi technology at no cost to the public interest, dated 28 October 2013. The Ministry of ICT has already returned money to the Fund on 20 August 2014.

- (3.2) Limitations in the follow-up and evaluation of projects
- The delay of procedure of consideration of the Fund approval resulted in the delay of the implementation of the projects which received financial support from the Fund and none of the project has yet completed the implementation. The Fund Management Committee therefore has not yet evaluated the success of the projects in result level. The presentation of this report is only focusing on the follow-up the operation, problems and obstacle of projects implementation, recommendations and efficiency of the expenditure when compared to the plan.



(4) Learning and development

(4.1) Updating rules and regulations, announcements and criteria to be in line with the current situation and leading to the efficient allocation of the Fund. In 2014, the activities are as follows:

- a. Having reviewed and issued the Fund Management Committee Announcement on criteria, procedure, and condition for the Fund expenditure, follow-up, and evaluation of the Fund's finance which has been published in the Royal Gazette on 23 April 2014 to provide a transparent and efficient guidelines for scrutinizing the projects that requested for financial support of the Fund.
- b. Having issued the Fund Management Committee Announcement on budget framework, procedure of consideration for the Fund allocation and applying for financial support dated 30 April 2014 to provide information for those who are interested of the conditions and procedure of consideration of the Fund allocation, and guidelines for applying for financial support so that they can apply correctly and effectively.
- c. Defining methods and procedures of scrutinizing the projects in type 1 in 2014 according to the Fund Management Committee Resolution in the Meeting No.4/2014 on 24 November 2014.
- d. Setting up the guideline framework, model and procedures for the follow-up and evaluation of the projects according to the Fund Management Committee Resolution in the Meeting No.1/2014 on 22 October 2014.

(4.2) The development of information technology system to facilitate operation. The year 2014 was the first year that the information technology system has been developed and used for facilitating those who requested for financial support of the Fund in submitting the application form via the Fund on-line and for statistic data collection and analysis to be used in the consideration of relevant issues.

(5) The Research and Development Fund Bureau human resource development

Having organized training courses on "Potential development of research and development promotion and research and development management in broadcasting, television and telecommunication services" in order to develop the staff to have a better understanding of research and development work, including the effective co-operation. The study visit on innovative research had also been held in Seoul, Republic of Korea as well as the on-the-job training of the staff who have supported or operated in collaboration with the Fund Management Committee or Sub-committees in all activities which could be a direct learning and development from working.



## 2. Performance Efficiency and Effectiveness Evaluation

Details are shown in Table 75

**Table 75:** Comparison of Action Plan and Implementation of the Fund in 2014

Implementation		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Efficiency
Review and formulation of relevant policies	Plan													Within the time planned
	Outcome													
Project Type 1 in 2014	Plan													Later than the time planned
	Outcome													
Projects under USO Plan	Plan													Project postponed
	Outcome													
Project for supporting the public in the transition to digital terrestrial television	Plan													Within the time planned
	Outcome													
Project for supporting the public in the transition to digital terrestrial television	Plan													Within the time planned
	Outcome													

### 1) Efficiency evaluation

The activities and operation of the Fund in each project are diversified and independent to each other, and the operation under some objectives have several limitation and it resulted in the failure to implement the project concretely. Thus, the efficiency evaluation of the Fund will evaluate the activity or operation that the Fund could carry out within a specified period. In the year 2014 the Fund had projects and activities for totally 5 activities in which 3 projects/activities could be implemented completely within a specified period or accounted for 60 percent.

### 2) Effectiveness evaluation

Although the operation of the Fund in 2014 had been delaying in some activities due to the change of composition of the Fund Management Committee and other relevant environment, the Fund



was able to carry out the activities until it achieved the objectives of each activity as planned such as the review of announcement and criteria for the Fund allocation of the projects in type 1 in 2014, or the new Fund Management Committee including the Sub-committee have accelerated the scrutinization of the projects to be completed, etc. The expenditure of the Fund in 2014 has put some impact to the society in overall such as the resuction of burden of the citizen in the transition to digital television switch over, or the citizen are able to access and watch the Final World Cup 2014 without any charges applied, and so on. In addition, the result of the expenditure of the Fund in the previous times has pushed forward the development of the broadcasting, television, and telecommunications services of Thailand in many areas such as the provision of information service center (USO NET), the prototype research (engineering design guide) of the Set-top Box, or the trainings of personnel in the broadcasting and television services, etc. It, therefore, can be concluded that the performance of the Fund, although a delay was occurred due to uncontrolled factors, can achieve the objectives and targets as planned.

3) Progress of the Strategic Plan of the Fund B.E.2014 - 2016

Having measured the progress of the Fund in the implementation of the Strategic Plan of the Fund in 3-year period (2014 - 2016) according to 18 indicators, it is found that, in the year 2014, the Fund has carried out the projects to achieve the target as planned for 3 indicators consisted of setting up budget framework for supporting the researches, not less than 25 percent of the budget framework in each year, setting up a surplus budget, and the management of the return of the Fund. For the rest indicators, they could not be evaluated due to relevant environmental factors, such as time usage for the follow-up and evaluation of the projects, or relevant criteria for the Fund allocation, etc. The summary of the progress of implementation of the Strategic Plan are shown in Table 76.





**Table 76:** Progress of Implementation under the Strategic Plan of the Fund (2014 - 2016)

Indicators under the Strategic Plan	Progress
<b>Objective 1, Section 52 (1)</b>	
1) The proportion of people who have been provided the broadcasting, television and telecommunications services per population of the target set.	<ul style="list-style-type: none"> <li>The telecommunications services has been postponed by the Order of the National Council for Peace and Order (NCPO).</li> <li>The broadcasting and television services have been waiting for the Action Plan from the NBTC.</li> </ul>
2) The proportion of people outside the plan for the provision of universal broadcasting and television services, the USO Plan (2012 - 2016) have been provided the services and utilized the services per all population outside the plan in 2016.	<ul style="list-style-type: none"> <li>The Announcement of the NCPO No. 80/2014 have changed some objectives and composition of the Fund Management Committee which resulted in the financial allocation especially the projects in type 1 that were unable to complete the allocation within 2014.</li> </ul>
3) The proportion of community that have been developed of the potential and granted licenses for broadcasting or television services in category of community service according to the criteria and procedures prescribed by the NBTC per total communities with readiness.	<ul style="list-style-type: none"> <li>The NBTC is in the process of arranging the organization of community radio and setting up the criteria for the promotion under Section 51.</li> </ul>
4) The proportion of the broadcasting or television operators in category of community service that are sustainable self-reliance per total broadcasting or television operators in category of community service.	<ul style="list-style-type: none"> <li>The NBTC is in the process of arranging the organization of community radio and setting up the criteria for the promotion under Section 51.</li> </ul>
<b>Objective 2, Section 52 (2)</b>	
1) Research and Development projects under the Fund's objectives has been promoted and supported by the Fund of no less than 25 percent of the budget framework in each year.	<ul style="list-style-type: none"> <li>In 2014, the budget allocation framework of 500 million baht were set up and divided by objectives into 4 objectives which is accounted for 125 million baht or 25 percent of the allocation budget.</li> </ul>
2) Number of research and development projects under the Fund's objective that were promoted and supported by the Fund have been utilized no less than 100 percent of the total projects.	<ul style="list-style-type: none"> <li>In process of the follow-up and evaluation of the projects</li> </ul>
<b>Objective 3, Section 52 (3)</b>	
1) The number of personnel in broadcasting, television and telecommunications services and information technology, who have been developed for the operation, has increased no less than 5 percent per year.	<ul style="list-style-type: none"> <li>The Announcement of the NCPO No. 80/2014 have changed some objectives and composition of the Fund Management Committee which resulted in the financial allocation especially the projects in type 1 that were unable to complete the allocation within 2014.</li> </ul>
2) The number of personnel in broadcasting, television and telecommunications services and information technology, who have been developed for the operation, can utilize the knowledge in the operation no less than 50 percent of all developed personnel.	<ul style="list-style-type: none"> <li>In process of the follow-up and evaluation of the projects</li> </ul>



Indicators under the Strategic Plan	Progress
3) The number of organizations which have responsibilities to set up the ethical standards having the performance with quality and efficiency, have increased no less than 5 percent per year.	• In process of setting up the criteria and procedures as prescribed by the NBTC.
4) The proportion of organizations which have responsibilities to set up the ethical standards having the performance with quality and efficiency to all organizations which have responsibilities to set up the ethical standards.	• In process of setting up the criteria and procedures as prescribed by the NBTC.
<b>Objective 4, Section 52 (4)</b>	
1) The proportion of consumers that have been developed obtaining knowledge increased about consumer rights, media and technology, and the use of broadcasting, television, and telecommunications services as well as be acknowledged of the channels for lodging complaints no less than 80 percent of total consumers who have been developed.	• In process of setting up the criteria and procedures as prescribed by the NBTC.
2) The number of consumer groups in the broadcasting, television, and telecommunications services who have been promoted and supported has strong and efficient operation increased no less than 5 percent per year.	• In process of setting up the criteria and procedures as prescribed by the NBTC.
<b>Objective 5, Section 52 (5)</b>	
1) The level of people's satisfaction to the operation of the Safe and Creative Media Fund as stipulated by law in each year.	• No budget allocation for the Fund in 2014 until the relevant law has come into effective.
<b>Fund management</b>	
1) The finance proportion of the Fund which are able to disburse for all projects that have been approved within a specified period.	• The disbursement has been done for only 36 percent due to the adjustment of the Plan to be in line with the NCPO's policy.
2) The proportion of period of time for the consideration of all applications for promotion and financial support per time frame prescribed in the Announcement of the Fund Management Committee regarding criteria, procedures, and conditions of the expenditure, follow-up, and evaluation of the Fund.	• There is a change in some objectives and composition of the Fund Management Committee which resulted in the delay of the implementation.
3) The proportion of the projects that the NBTC have requested the Fund Management Committee to consider and propose recommendation on the financial allocation according to Section 55, in addition to the projects that the Committee has already proposed the recommendations.	• No additional project that the NBTC requested for consideration.
4) The Fund budget is balanced or in surplus, with the ratio of revenues to expenditures of not less than 1.	• The Fund's revenues over expenditure for 30 times.
5) The rate of return of the Fund in each type of deposit is no less than the average rate of return on deposits of 5 top commercial banks in each category.	• The fund has an average return on deposits for 2.89 percent which is more than the average rate of return on deposits of 5 top commercial banks that are 1.45 percent.



### 3. Operation guideline framework in 2015

#### Objective

To promote and support the implementation according to objectives of the Fund, Section 52 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunication Services B.E.2553 (2010), and framework of budget allocation in 2015 to be efficiently and beneficial to the general public in overall.

#### Target

##### 1) Financial management

Having provided the maintenance, expenditure, accounting, accounting system, financial report and finance and account audit for the transparency and accountability.

##### 2) Provision of services to the public

Having promoted and supported money from the Fund to the public according to the objectives of the Fund by setting budget framework for allocation in 2015 as follows:

- Allocating budget for the promotion and financial support of the projects under the guideline and budget framework for supporting the Project Type 2 within the overall budget framework of 700 million baht.
- Allocating budget for the promotion and support the projects under the annual USO Plan, and the projects under policy framework of the NBTC.
- Allocating budget for supporting the operation according to the Act on Safe and Creative Media Development Fund.
- Allocating budget for supporting the Ministry of Finance to loan for the operation for the public interest.

##### 3) Follow-up and evaluation of the Fund expenditure

- Monitoring the projects which were approved by the NBTC
- Evaluation of the outcome of the projects
- Evaluation of the Fund's operation under the Strategic Plan

##### 4) Learning and development

- Reviewing and formulating policy framework or work plan, issuance of notification on criteria and procedure relating to the Fund's budget expenditure and allocation including guideline framework for the follow-up and evaluation of the projects supported by the Fund.
- Developing capabilities of human resources in all area of work constantly including the working system of the Research and



Development Fund Bureau to be able to support and respond to policies of the Fund Management Committee efficiently.

- Establishing the internal audit system, risk management system, accounting system, and self-assessment system for the Fund Management Committee, Individual Committee, and staff of the Research and Development Fund Bureau.

#### 4. Mechanism for supporting the operation

The Fund has been managed in form of the Committee and Sub-committee by having the Research and Development Fund Bureau as a secretary unit. The Fund Management Committee, by the approval of the NBTC, has appointed 4 Sub-committees to support its tasks in managing the Fund as follows:

1) The Sub-committee for policies-driven and strategic plans of the Fund for supporting the implementation of the policy and strategic plan of the Fund which leads to the review and improvement of policy and strategic plan of the Fund, the formulation of the draft annual Action Plan, and the driving of strategic plan of the Fund efficiently.

2) The Sub-committee for scrutinizing projects and budget supported by the Fund for supporting the operation on scrutinizing projects and budget including proposing recommendations on the formulation of criteria, procedures, and consideration process of the projects that requested for financial support by the Fund.

3) The Sub-committee for follow-up and evaluation of the projects of the Fund for supporting the operation on the follow-up and evaluation of the projects to be in line with the Fund's objectives and the work plan including proposing guideline for improvement to be more efficient.

4) The Sub-committee for financial risk management of the Fund for supporting the formulation of the policy framework, criteria, and practical guidelines for the investment of the Fund, follow-up and control the financial management of the Fund in order to ensure the transparency and accountability of the Fund's operation and be on par with international principles.



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MEKRE MESSEMPFÄNGER · TEST RECEIVER · 9kHz-30MHz · 100V

RF-EMPFANG  
RF-ATTENUATION

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ANZEIGE  
INDICATION



ARBEITSBEREICH  
OPER. RANGE

20 dB  
40 dB  
60 dB

MW AV  
SP-PEAK  
CISPR  
MIL

# 5

*The Report of Market Environment  
and Competition in Broadcasting  
and Telecommunications Services  
in 2014*



## Market Environment and Competition in Broadcasting and Telecommunications Services

### 1. Market environment and competition in broadcasting services

The structure of television business industry in Thailand in 2014 has been transformed into the digital television broadcasting system (digital TV). Since 1 April 2014 until now there are totally 27 channels broadcasting on digital TV in which 6 channels have been switching from analog system and broadcasting in parallel in both digital and analog (traditional TV) systems. 3 of those 6 channels broadcasting in category of public service are Royal Thai Army Radio and Television Channel, National Broadcasting Services of Thailand (NBT) and Thai PBS, while the other three channels broadcasting in category of general program in high definition are Thai Television Channel 3, Bangkok Broadcasting TV Channel 7, and Modern 9 TV. For other 21 new channels which can be divided into 4 categories of commercial services consisted of 3 channels for children, youth, and family programs (3 FAMILY, MCOT Kids & Family, and LOCA TV), 7 channels for news and documentaries (Nation TV, VOICE TV, Thai TV, Spring News, TNN 24, New TV, and Bright TV), 7 channels for general program in normal definition (SD) (Workpoint TV, True4U, GMM Channel, 3 SD, 86, Mono 29, and NOW), and 7 channels for general program in high definition (HD) (3 HD, PPTV, 7 HD, Thairath TV, MCOT HD, AMARIN TV HD, and ONE). Moreover, there are other 733 channels of cable TV and satellite TV<sup>7</sup>

For the year 2014, according to Nielsen data, it is found that Thai people have an average of 247 minutes per day watching television which increased by 3 percent from a year earlier, and among those, the average of traditional TV watching is 177 minutes per day, new digital TV channels is 40 minutes a day, and cable and satellite TV is 117 minutes per day. For the advertising value of the existing terrestrial television channels, digital TV channels, cable TV and satellite TV, in 2014, the proportion of advertising value is 50.2 percent, 9.5 percent and 5.7 percent of total value of advertisement in all media, respectively.

The transition to digital television transmission in 2014 results in the growth of all sectors in broadcasting industry especially the value of advertisement which has been increased as well as an increase of a variety of channels for accessing to information of the public.

For the radio broadcasting service, the data from Nielsen has shown that at present, 40 main radio stations in FM system (87.5 MHz - 107.0 MHz) in Bangkok and its vicinities have advertising value at 4.4 percent of total value of advertisement in all media this year.

<sup>7</sup> Information of the number of licensees in broadcasting or television services for the provision of broadcasting or television service for non-spectrum used (channel) as of 31 December 2014



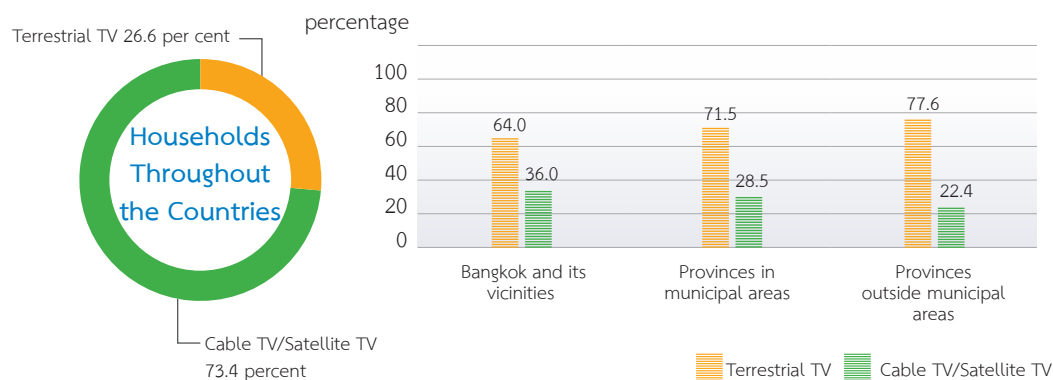


## Market situation in broadcasting and television services in 2014<sup>8</sup>

### ● Television market situation

The transition to digital terrestrial TV viewing has started in April 2014 and it has also brought in the change in the television viewing of Thai people in any channels. In overall, Thai people have watched television in all channels throughout the year in a total average of 247 minutes per day, or about 4.12 hours per day. Among those, the average of traditional TV watching (6 channels) is 177 minutes per day, digital TV channels is 40 minutes per day, and cable and satellite TV is 117 minutes per day.

Chart 26: Ratio of Thai's Household Access of Television Viewing Channel in 2014



Source: Broadcasting Policy and Research Bureau with referencing to Nielsen

The proportion of the access to Thai households of television service according to the broadcasting methods has shown that the channels for television viewing of the households are done through terrestrial television by using antenna or installing cable TV or satellite TV. It is to consider on the platform to view the television not on the program channel such as the household that installed cable TV may have viewed the channel programs either through cable TV or satellite TV and in this case, the household will be counted in the proportion of cable TV and satellite TV. In overall of 2014<sup>9</sup>, it is found that 73.4 percent of all households have watched television through cable and satellite networks, and 26.6 percent of all households have watched television through antenna (terrestrial TV). In the past, the growth of the access to cable and satellite networks was likely to increase steadily. However, having considered in each area of residence it is found that each area has watched television through the networks in different proportions. In Bangkok and its vicinities, the proportion of television viewing through cable and satellite network is less than the viewing in the provincial areas. The details are shown in Chart 26.

<sup>8</sup> Data on television (terrestrial TV, cable TV, and satellite TV) has been collected by Nielsen on the population with the age of 4 years old or more and data on broadcasting service has been surveyed by Nielsen on the population with the age of 12 years old or more

<sup>9</sup> From the latest survey result of Nielsen in August 2014



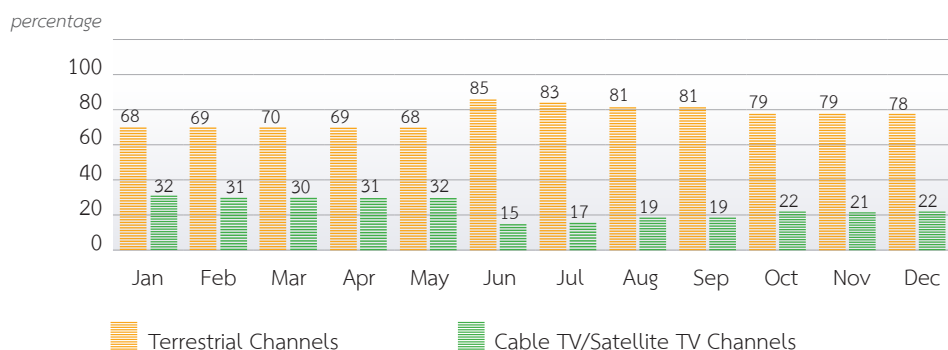


However, it is expected that the proportion of access will be changed significantly since the beginning of coupons distribution to support the transition to digital terrestrial television viewing in the 4<sup>th</sup> quarter of 2014 as it may help encourage the more viewing of people to digital terrestrial television via the Set-top Box and antenna.

- Percent share of TV channel viewers<sup>10</sup>

The percent share of the viewers of terrestrial television and cable TV and satellite TV when considering the overall of movement of the viewing of channels in each platform, it is seen that the percent share between terrestrial television channels and cable TV and satellite TV has been gradually changed after the trial operation of digital TV broadcasting in April 2014 in which the viewing of digital terrestrial television channels percent share has increased from 68 percent at the beginning of the year to 78 percent, while the cable and satellite TV channels, on the contrary, is likely to decrease. The percent share between the viewing of digital terrestrial television channels and cable and satellite TV channels at the end of 2014 was 78 percent to 22 percent. The details are shown in Chart 27.

Chart 27: Proportion of Viewers on Terrestrial Television, Cable TV, and Satellite TV in 2014



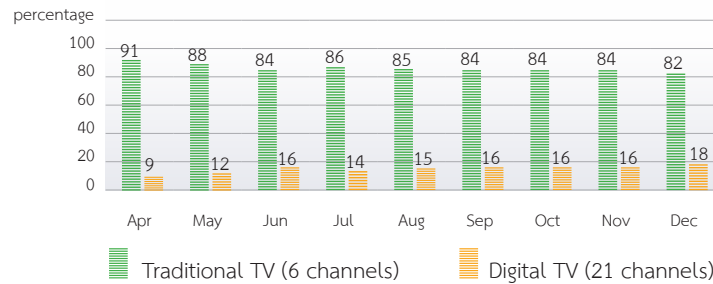
Source: Broadcasting Policy and Research Bureau with referencing to Nielsen

Having considered the percent share of the viewers of 6 terrestrial television channels (traditional TV) and 21 digital TV channels, it is seen that for the terrestrial television channels, the percent share of the viewers between traditional TV channels is gradually decreasing since April where the new channels of digital TV have been launched. This shows the intention of the viewers which turned into 21 new digital TV channels. The proportion of the viewers of new digital TV channels is increased from 9 percent in April to 18 percent in December, which is accounted for a 2-fold growth during the 9-month period. The details are shown in Chart 28.

<sup>10</sup> taken from the number of the channel's viewers per minute in average, divided by the total number of the TV viewers at that time which considered on the program channel only, not on channel for viewing.



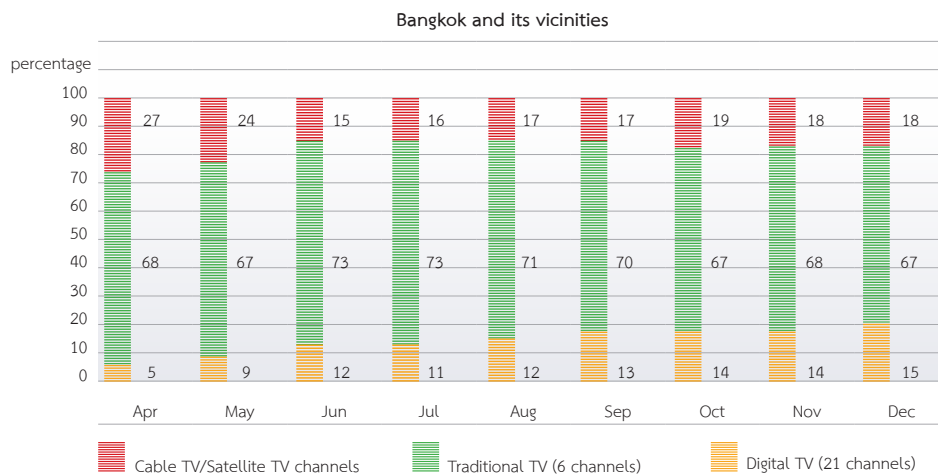
**Chart 28:** Proportion of Viewers on Terrestrial Television and Digital Television



Source: Broadcasting Policy and Research Bureau with referencing to Nielsen

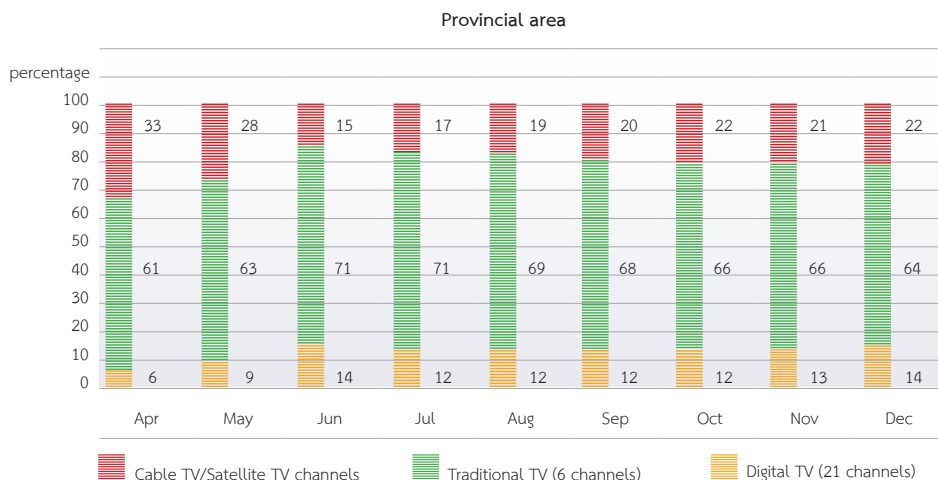
Proportion of viewers on existing channels, new digital channels, cable TV, and Satellite TV which is categorized by residential zone

**Chart 29:** Proportion of viewers on existing channels, new digital channels, cable TV, and Satellite TV categorized by Residential Zone (Bangkok and its vicinities)



Source: Broadcasting Policy and Research Bureau with referencing to Nielsen

**Chart 30:** Proportion of Viewers on Existing Channels, New Digital Channels, Cable TV, and Satellite TV categorized by Residential Zone (Provincial Area)



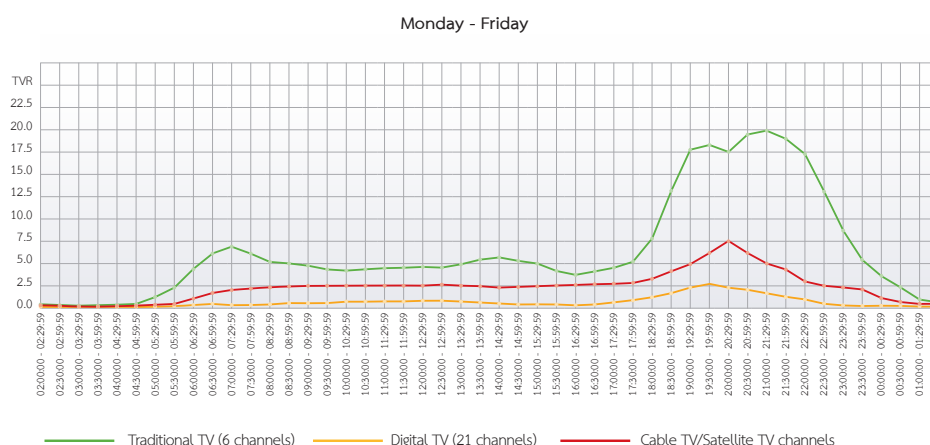
Source: Broadcasting Policy and Research Bureau with referencing to Nielsen



From the number of percent share of the viewers in Bangkok and its vicinities and in the provinces, it is shown that the number of viewers of new digital TV channels in Bangkok and its vicinities and the provinces has the same proportion with the same direction of trends by having increased steadily in every month until December in which the percent share of the viewers in both areas were 15 percent and 14 percent respectively. This could be said that the growth of the percent share is quite high within 9 months, while the traditional TV channels have still maintained the highest percent share in 3 channels. However, the interesting trend in the provincial area is that the percent share of the viewers of traditional TV channels has increased from 61 percent in April to 64 percent in December. Unlike the cable TV and satellite TV which the percent share of the viewers dropped significantly as it is the result from the changing way of viewing of households to be viewing via Set-top Box or iDTV. In Bangkok and its vicinities, the percent share of viewers is also decreasing from 27 percent in April to 18 percent in December. However, the percent share of the viewers in provincial areas has been in higher proportion than in Bangkok and its vicinities which shown that the viewers of cable TV and satellite TV channels have still been in provincial areas more than Bangkok and its vicinities. The details are shown in Chart 29-30.

- Popularity of TV viewing<sup>11</sup> (TV Rating)
  - The rating of TV viewing of half-hour TV program, the average rating of TV viewing in a year during Monday - Sunday are high during Prime-time which is in the evening of the day around 18.00 hrs. until midnight. From Monday to Friday, the period of 21.00 - 22.00 hours has higher viewers in traditional TV channels and new digital TV. Later, the period of 20.00 - 20.30 hours becomes the period that cable TV and satellite TV have attracted more viewers from other channels. However, the period of 6.30 - 8.00 hours has an outstanding of viewers in traditional TV channels more than other channels. The details are shown in Chart 31.

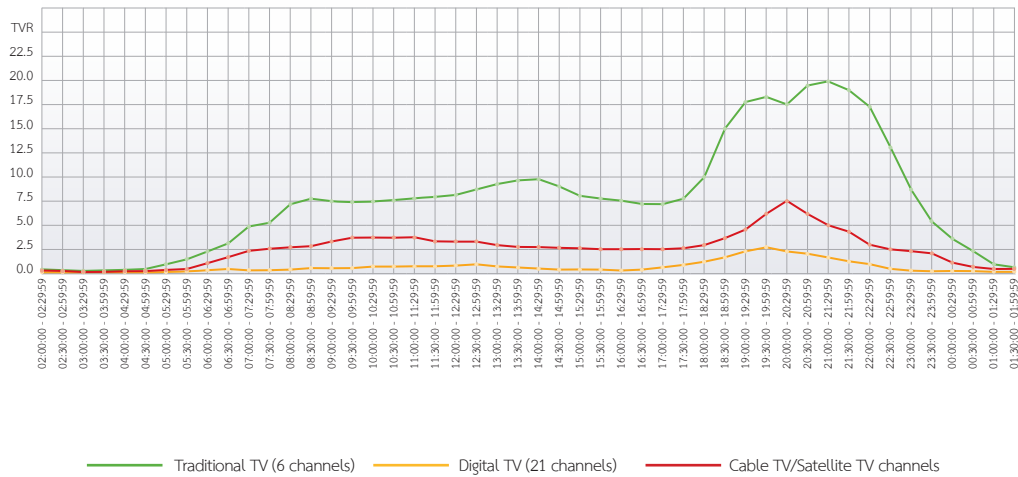
Chart 31: Popularity of TV Program Viewing Categorized by Days (Monday - Friday, Saturday - Sunday)



<sup>11</sup> taken from the average number of viewers per minute divided by the number of target groups, such as the rating of viewing Tv channels in overall viewers throughout the country during 07.00 to 08.00 hours, which calculated from the average number of viewers per minute during 07.00 to 08.00 hours divided by the number of all people throughout the country.



## Saturday - Sunday

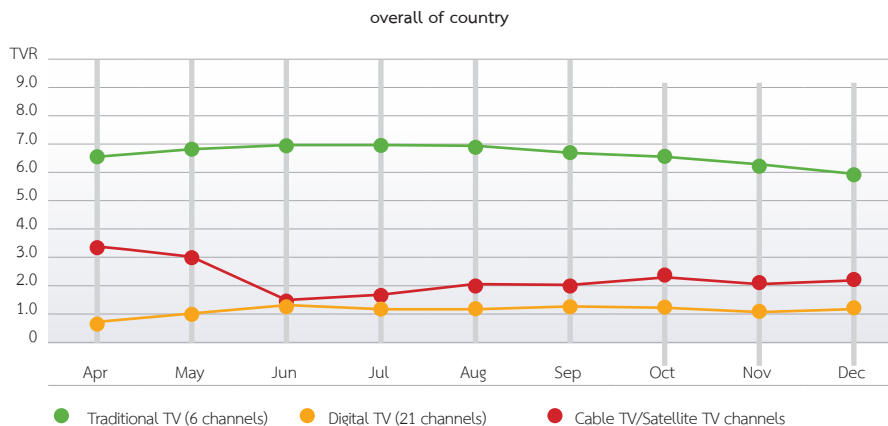


Source: Broadcasting Policy and Research Bureau with referencing to Nielsen

In the weekend, it is found that the rating of TV viewing tended to be higher than on weekdays since approximately 07:30 hours to 18.00 hours, and after that the rating is getting higher as weekdays trend. For the 6 traditional TV channels, the highest rating of viewing is in the period of 21.00 - 21.30 hours, a bit higher than the same period in weekdays and weekends which the highest average rating of viewing throughout the year is 19.98 and 20.87 respectively.

This highlights the average rating of TV viewing in the whole day of cable TV/satellite TV on weekdays and weekends was 2.31 and 2.63, while the traditional TV was 6.40 and 7.78, and new digital TV was 0.72 and 0.76. The details are shown in Chart 32.

Chart 32: Popularity of TV Program Viewing Categorized by Residential Zone

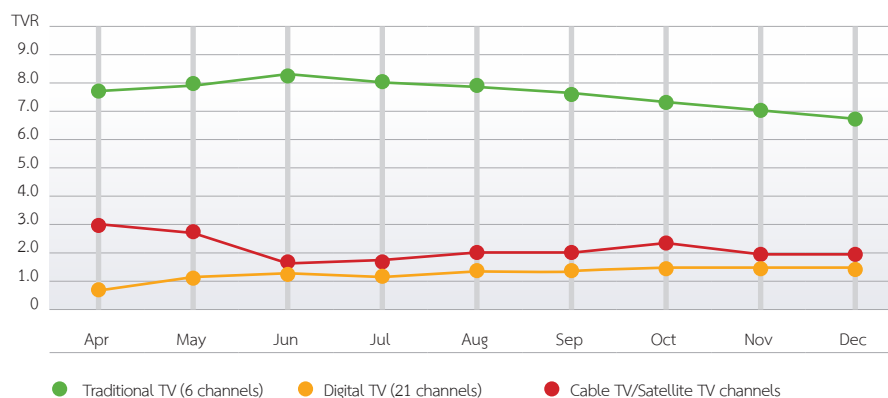


Source: Broadcasting Policy and Research Bureau with referencing to Nielsen



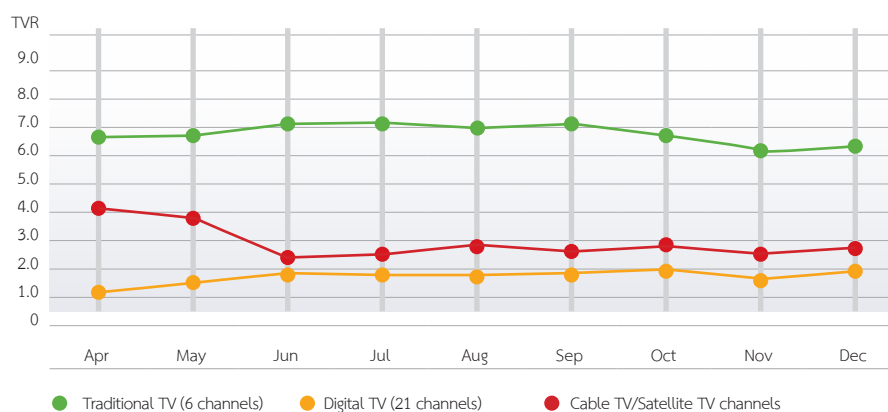


Bangkok and its vicinities



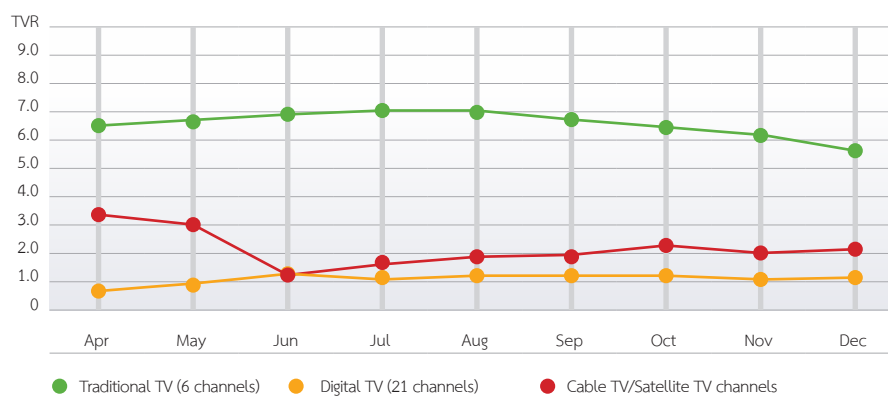
Source: Broadcasting Policy and Research Bureau with referencing to Nielsen

Provincial areas in municipality



Source: Broadcasting Policy and Research Bureau with referencing to Nielsen

Provincial areas outside municipality



Source: Broadcasting Policy and Research Bureau with referencing to Nielsen



- The rating of viewing TV channels categorized by residential area, considering the rating of TV viewing of all people of the whole country on a monthly basis since the launching of digital TV, it is found that the rating of cable TV and satellite TV is clearly seen declining in June which is opposite to the new digital TV channels. Besides, the rating of traditional TV channels viewing has been clearly seen declining in October which may be resulting from the increase of viewers of digital terrestrial TV who received the digital TV coupons that started distributing since October. It was therefore a driving force to encourage the public to change their behavior to install and view television via Set-top Box or iDTV so that they have more opportunity to view digital TV channels.

However, having considered the residential area, it is seen that the decline of the rating of traditional TV channels viewing has subjected to the group of people living in Bangkok and its vicinities, including those living in the provinces outside the municipalities areas as well. It, therefore, can be said that the more options there are, the more behavior changes of the viewers to digital TV. However, the overall rating of cable TV and satellite TV viewing after June was relatively stable after the rapid decline, but in the provinces and municipalities that originally the rating of viewing of cable TV and satellite TV was higher than other areas, it is found that the decline is likely to gradually climb up and the rating of viewing the existing program channels is gradually falling.

- Broadcasting market situation

*The number of listeners to the main radio stations in areas of Bangkok and its vicinities*

From the results of the survey of the listening to 40 FM radio stations (87.5 MHz - 107.00 MHz) at the end of 2014, it is found that the period of time that attracting more listeners is in the morning between 8.00 - 11.00 hours, and between 14.00 - 17.00 hours. Most of them listened to the radio station in category of entertainment and traffic reports. In addition, if the listening was categorized by the venue, it is found that most of the listeners access to the radio from their houses, followed by in vehicles, and working place. The most devices used to listen to the radio is radio equipment, followed by mobile phone and tablet respectively.

- Market value of broadcasting and television services in 2014<sup>12</sup>

In overall of 2014, the value of terrestrial television service has increased from the cost of advertisement of digital TV channels, which is accounted for 9.5 percent of advertising in all media.

<sup>12</sup> Information taken from Nielsen and Media Agency Association and Media Business of Thailand



However, the advertising in the old channels were decreased at 7.9 percent comparing with the previous year but the proportion of advertising in all media still be 50.2 percent, decreasing from the year 2013 which was at 53 percent while the value of advertising on cable TV/satellite TV has changed dramatically from the year 2013, by decreasing 39.4 percent. The proportion of total advertising value also decreased from 9.1 percent in the year 2013 to 5.7 percent in the year 2014. For broadcasting services, the value of advertising declined 11 percent from the year 2013 and the proportion of advertising value comparing to the total advertising value in the same year was 4.4 percent, slightly decrease from the previous year which was 4.8 percent. The details are shown in Table 77.

**Table 77: Value of Advertisement through Media**

Type of media	2013		2014		Change during 2013 - 2014
	Million baht	Percent	Million baht	Percent	
Traditional TV (6 channels)	69,249	53.0	63,775	50.2	-7.9
Digital TV (21 channels)	-	-	12,071	9.5	-
Cable TV/Satellite TV*	11,853	9.1	7,177	5.7	-39.4
Radio**	6,321	4.8	5,625	4.4	-11.0
Other media	43,306	33.1	38,429	30.2	-11.3
<b>Total</b>	<b>130,729</b>	<b>100.0</b>	<b>127,077</b>	<b>100.0</b>	<b>-2.8</b>

\*excluded TrueVisions

\*\*excluded value of advertising that the media owner advertised in own media

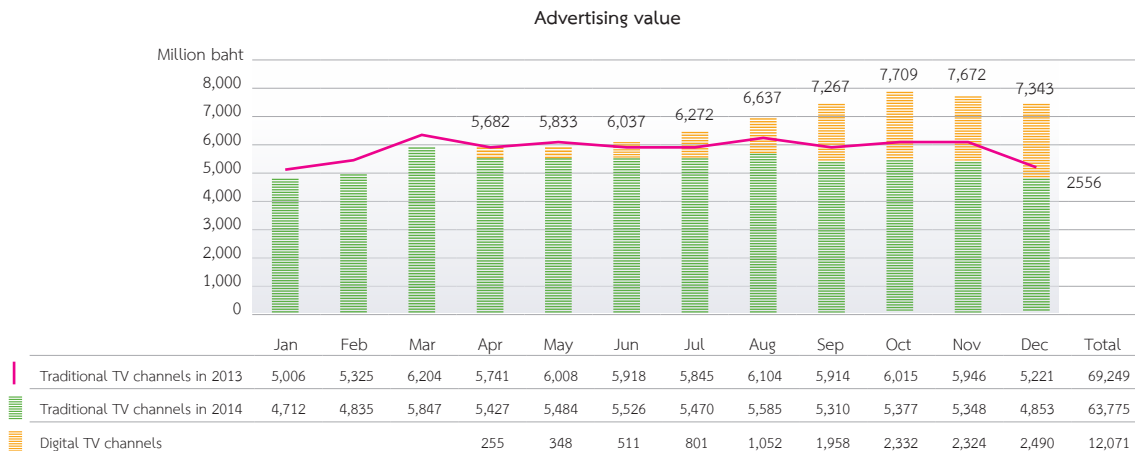
Source: Broadcasting Policy and Research Bureau with referencing to Nielsen

#### ● Market value of terrestrial television

For the advertising value of terrestrial TV channels in 2014, it is found that the emergence of digital TV has increased the total market value. In overall of the year 2014, the value of advertising was totally 75,846.77 million baht rising up 9.53 percent from the previous year. However, the trend of advertising value of the 6 traditional TV channels in each month has been fluctuated like it did last year but less value. On the other hand, the emergence of advertising in new digital channels had significantly increased the value of advertising in terrestrial television channels based on the increasing amount of minutes of advertising on the increasing number of channels. It is also expected that the value of advertising in terrestrial television service in 2015 will be rising steadily due to the increase of rating of digital TV viewing and it resulted in the increased number of the advertising buyers. The details of advertising value and minutes used in the advertisement in each month are shown in Chart 33 and 34.

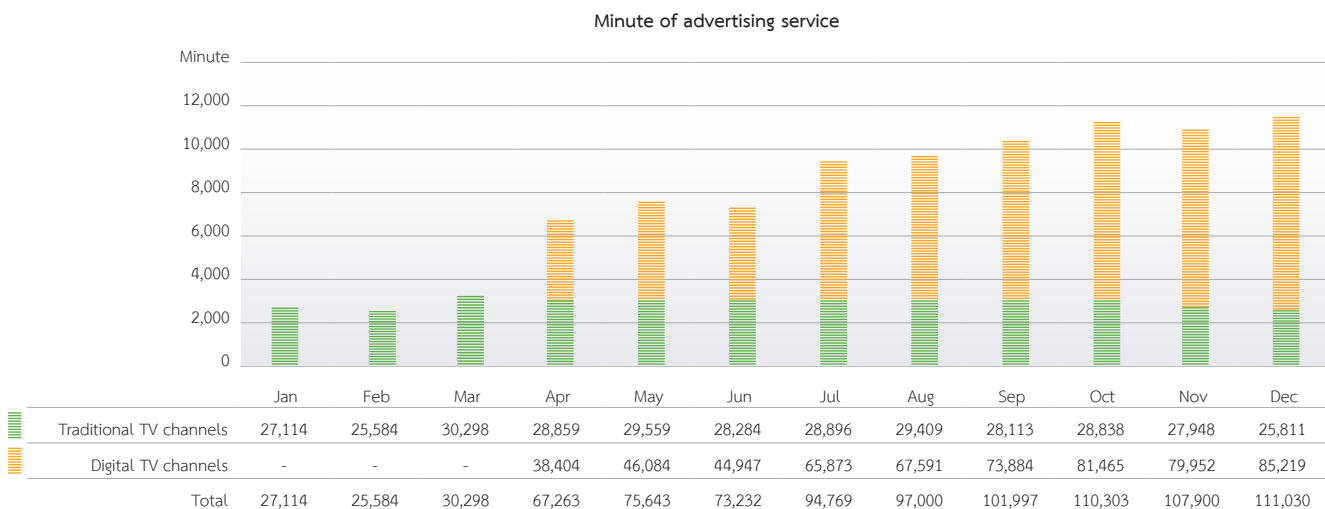


Chart 33: Advertising Value of Terrestrial Television Market during 2013 - 2014



Source: Broadcasting Policy and Research Bureau with referencing to Nielsen

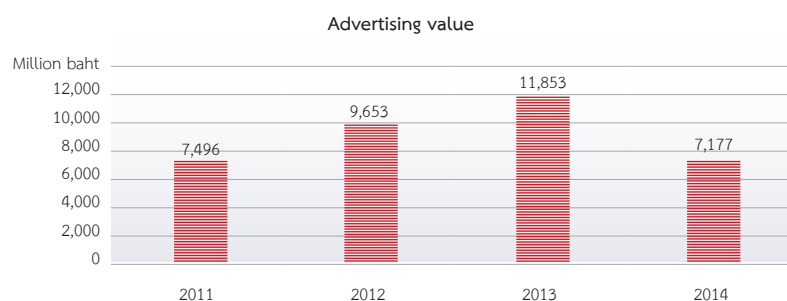
Chart 34: Advertising Minute of Terrestrial Television Market in 2014



Source: Broadcasting Policy and Research Bureau with referencing to Nielsen

- Market value of cable and satellite television  
In the previous time, trends on advertising via cable TV and satellite TV had grown up constantly, but the trend in 2014 has a different direction of movement. It is found that the value of advertising has 4,676 million baht declined from the previous year, or is accounted for 39.4 percent, from the higher growth rate in 2013 (which was 22.79 percent growth from the year 2012). The details are shown in Chart 35.

Chart 35: Advertising Value of Cable TV and Satellite TV during 2011 - 2014



Source: Broadcasting Policy and Research Bureau with referencing to Nielsen

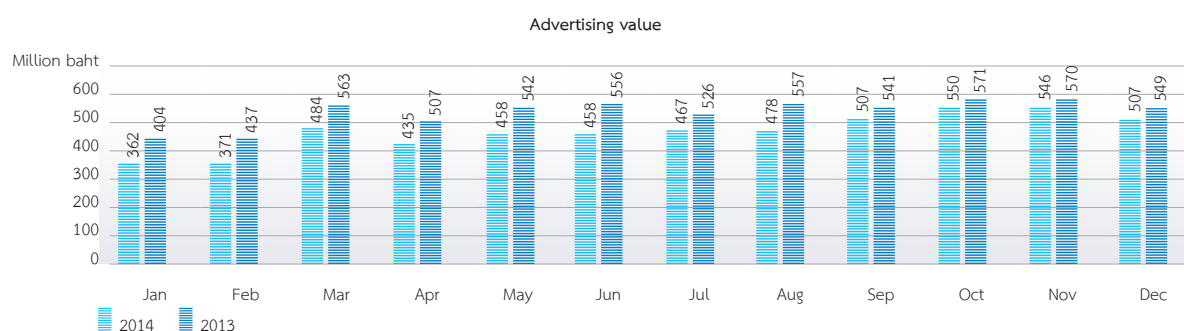




- Value of advertising via radio broadcasting stations

The total value of advertising via the main radio broadcasting stations in FM system in Bangkok and its vicinities in 36 stations (88.0 - 91.5 MHz, 93.0 - 103.5 MHz and 104.5 - 107.0 MHz) throughout the year was 5,624.57 million baht. Having considered the cost of advertising via radio in 2014 comparing to the year 2013, it is shown that the value of advertising in 2014 was lower throughout the year and it decreased 696.73 million baht from the 2013 (in which the total value of advertising was 6,321.30 million baht) or is accounted for 11 percent. The details are shown in Chart 36.

**Chart 36:** Cost of Advertisement on Primary Radio Broadcasting Stations in Bangkok and its Vicinities (2013 - 2014)



Source: Broadcasting Policy and Research Bureau with referencing to Nielsen

- The level of competition in the relevant markets in the broadcasting and television services under Section 32 of the Broadcasting Business Act B.E.2551 (2008) and Section 27 (11) of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010) prescribing that the NBTC shall set up measure for the prevention of anti-competitive conductor unfair competition in broadcasting, television and telecommunications services, and subsequently, the NBTC has issued the NBTC Notification on criteria for determining the providers with significant market power in the relevant market in the broadcasting and television services and specific measures to prevent the acts of monopoly or causing unfair competition B.E.2557 (2014). Besides, Article 14 of the Notification has prescribed that the Office of NBTC must prepare the report of analysis on level of competition in the relevant market and identifying those with significant market power in each relevant market. In some cases, the Office of NBTC may propose specific measures on ex-ante regulation to the Broadcasting Commission or BC within 180 days from the date that the Notification becomes effective. The report under the Notification consists of relevant markets as follows:



- 1) Wholesale Market, divided into 3 markets consisted of
  - (1) Wholesale market for the provision of television broadcasting transmission via terrestrial network service means the provision of broadcasting transmission service, analog or digital television and facilities service on terrestrial network to other licensees within the geographic scope of market in domestic level, consisting of 2 sub-markets as follows:
    - The wholesale market for the provision of digital TV services via terrestrial network means the wholesale market for the provision of digital TV services in terrestrial network to other licensees within the geographic scope of market in domestic level.
    - The wholesale market for the provision of facilities service for the main stations in the digital terrestrial network means the wholesale market for the provision of facilities service in the main stations of digital terrestrial television network to other licensees within the geographic scope of market in domestic level.
  - (2) Wholesale market for the provision of signal transmission and facilities services via fiber optic cable network means the wholesale market for the provision of radio and television signal transmission and facilities services in fiber optic cable network to other licensees within the geographic scope of market in domestic level.
  - (3) Wholesale market for the provision of signal transmission via satellite network means the wholesale market for the provision of radio and television signal transmission and facilities services in satellite network to other licensees within the geographic scope of market in domestic level, consisting of 2 sub-markets as follows:
    - The market for the provision of signal transmission service via the subscription satellite network means the market for the provision of signal transmission service via the subscription satellite network or other charges.
    - The market for the provision of signal transmission service via the non-subscription satellite network means the market for the provision of signal transmission service via the non-subscription satellite network or other charges.
- 2) Retails Market, considering only the retails market for the provision of television service for non-spectrum used means the retails market for the provision of television service in analog and digital system to end users via fiber optic cable network or satellite network, both for no service fee and monthly fee within the geographic scope of market in domestic level.



However, due to the announcement of the NBTC Notification which has been published in the Royal Gazette and come into effective since 15 August 2014, in 2014 the Office of NBTC has therefore been in the process of preparing report of analysis on level of competition in the relevant market as well as determinating the providers with significant market power in each relevant market within 180 days starting from the date that the Notification has come into effective for proposing to the BC according to the procedure prescribed in the Notification.

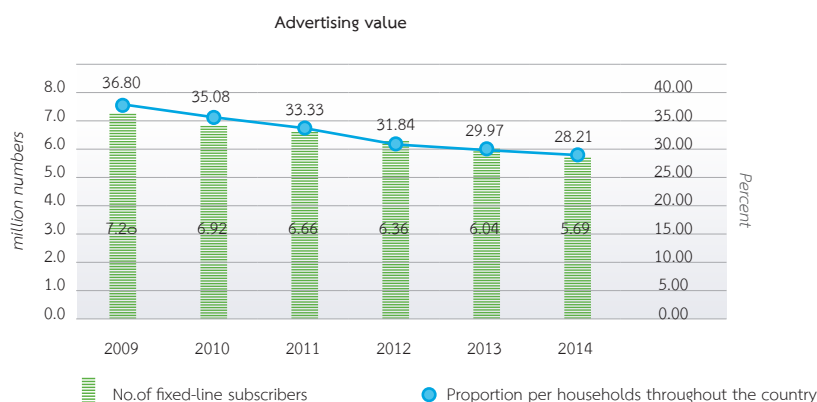
## 2. Market Environment and competition in telecommunications services

The Office of NBTC has conducted an analysis of market situation and competition in telecommunications service in Thailand in 2014 of 3 major markets which are fixed-line service, mobile phone service, and internet service as follows:

### 1) Market of fixed-line services

At present, there are 5 providers for the provision of fixed-line service in the fixed-line market of Thailand consisting of TOT Public Company Limited who provides fixed-line service covering all areas throughout the country, True Corporation Public Company Limited who provides fixed-line service in areas of Bangkok and its vicinities, TT&T Public Company Limited who provides fixed-line service in provincial areas. Both companies are fixed-line service providers under the concession of TOT Public Company Limited, and other 2 new fixed-line service providers<sup>13</sup> namely Triple T Broadband Company Limited (license granted on 23 February 2006) and True Universal Convergence Company Limited (license granted on 8 December 2006) for providing fixed-line services both in Bangkok and its vicinities and provincial areas. At present, there are 5.69 million fixed-line subscribers which is decreased from 6.04 million fixed-line subscribers in 2013 or 5.79 percent. The details are shown in Chart 37.

Chart 37: Number of Fixed-Line Subscribers during 2009 - 2014



Source: Telecommunications Policy and Resources Management Bureau

<sup>13</sup> Both companies have been arisen from the expansion of business operating scope of the existing companies to be able to provide services outside the framework of the concession contract.



In the saturated situation of the market which the growth rate has decelerated and deteriorated from several reasons whether in terms of product life cycle of PSTN technology or the substitution of technologies that effectively support the needs of service users, and it is also in accordance with the daily lifestyles that have changed from specific qualification of fixed-line service to the substituted services in terms of comfortability, a variety of services, and trend of service charge which is likely to be reduced or decreased, the fixed-line service providers have to improve their marketing strategies to keep the market share of the fixed-line service. This could be reflected by the strategy on prices of the service providers who tried to stimulate the service usage by setting price levels in form of service promotion to be closed to the behavior of mobile phone users continuously.

However, if the fixed-line service market was classified by area of service, it is found that the fixed-line users in area of Bangkok and its vicinities are approximately 2.99 million subscribers, while the users in the provincial areas are approximately 2.70 million subscribers, or accounted for 52.55 percent and 47.45 percent respectively. The details are shown in Table 78.

**Table 78:** Number of Fixed-line Subscribers (2009 - 2014)

Number of Fixed-line Subscribers	2009	2010	2011	2012	2013	2014
Bangkok and its vicinities (million numbers)	3.70	3.57	3.48	3.37	3.10	2.99
Regional areas (million numbers)	3.50	3.35	3.18	2.99	2.95	2.70
<b>Total (million numbers)</b>	<b>7.20</b>	<b>6.92</b>	<b>6.66</b>	<b>6.36</b>	<b>6.04</b>	<b>5.69</b>
Growth rate (percent)		-3.89	-3.81	-4.46	-5.05	-5.84
Proportion of fixed-line subscribers per 100 population (percent)	10.77	10.50	10.06	9.57	9.05	8.49
Bangkok and its vicinities (percent)	32.18	24.45	23.48	22.47	20.36	19.45
Regional areas (percent)	6.32	6.54	6.19	5.81	5.72	5.22
Proportion of Fixed-line Subscribers Per households (percent)	36.80	35.08	33.33	31.84	29.97	28.21
Bangkok and its vicinities (percent)	125.03	119.88	118.28	114.39	104.99	101.56
Regional areas (percent)	21.08	20.01	18.68	17.38	17.12	15.66

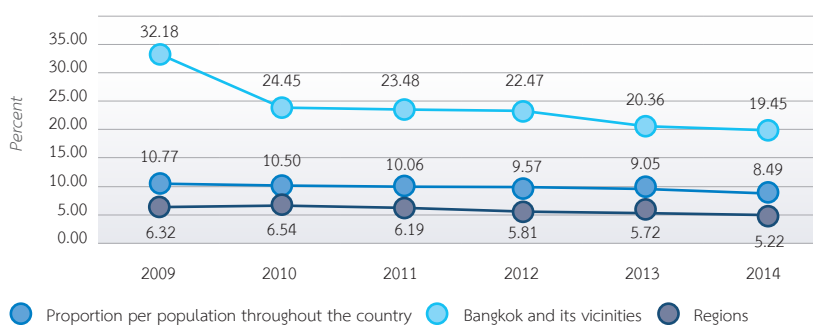
Source: Telecommunications Policy and Resources Management Bureau





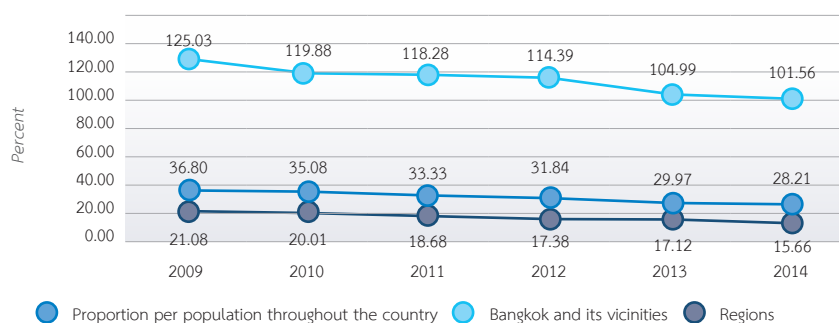
The number of fixed-line service subscribers categorized by area of services during 2009 - 2014, considering from the diffusion indicator, it is found that the proportion of fixed-line service subscribers per 100 population (fixed-line penetration rate) throughout the country is between 8 - 11 numbers per 100 population. This rate is considered low when compared to the average rate at the world's level. According to the ITU data, it is expected that in 2014, the world average diffusion in overall would be approximately 15.84<sup>14</sup> numbers. The reason of having low diffusion is that the proportion of fixed-line subscribers in regional areas was lessened by having between 5 - 6 numbers to 100 population as shown in Chart 38, which draw up the picture of inequality of access and usage of fixed-line service between the users in urban areas and regional areas. However, having considered the number of fixed-line service per household, it is found that there is at least one number of fixed-line in areas of Bangkok and its vicinities while there is about 6 - 7 households per 1 number of fixed-line service in regional areas. The details are shown in Chart 39.

Chart 38: Proportion of Fixed-line Subscribers Categorized by Service Area per 100 Population (2009 - 2014)



Source: Telecommunications Policy and Resources Management Bureau

Chart 39: Proportion of Fixed-line Subscribers Categorized by Service Area per Number of Households (2009 - 2014)



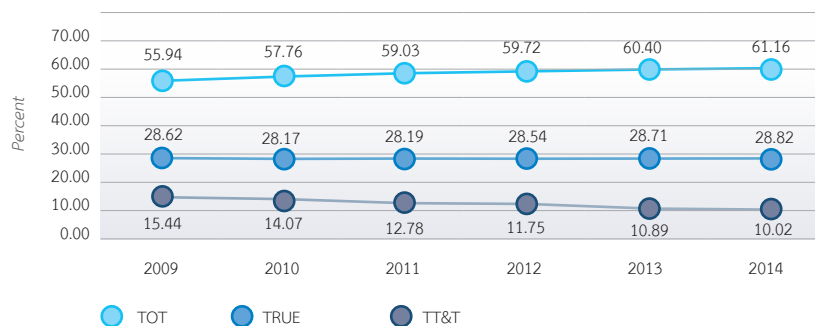
Source: Telecommunications Policy and Resources Management Bureau

<sup>14</sup> ITU World Telecommunication / ICT Indicators database.



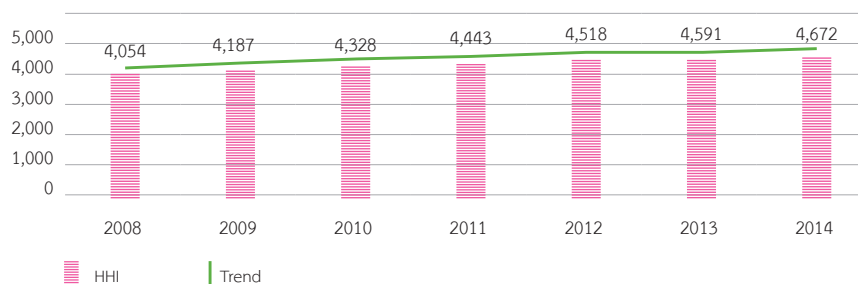
During the year 2008 - 2014, the market share of TOT and TRUE rose by an average of 1.80 percent per year and 0.14 percent per year, respectively; while the market share of TT&T decreased by an average of 8.29 percent per year, as shown in Chart 40. The nationwide HHI value in 2014 was 4,672, as shown in Chart 41, with no new service providers in the market. It is shown that the concentration of the provision of fixed-line services in the market is relatively high and belongs to the incumbent. The main reasons are because of the business nature of the provision of fixed-line service which requires high amount of investment and it thus results in a natural monopoly of the incumbent. The reasons also included the competitive restrictions under contract condition of new service providers which results in the commercial analysis for the investment in fixed-line business of the unworthy investment. Besides, the other reasons are because of a saturated situation of the market and the changing behavior of users that accepted the substituted technologies service in order to achieve communication objectives for reasons of convenience and lower service charge rates.

**Chart 40:** Market Share Statistics and Trend of Fixed-line Service in Thailand Categorized by Service Provider (2009 - 2014)



Source: Telecommunications Policy and Resources Management Bureau

**Chart 41:** Herfindahl Hirschman Index (HHI) Value of Fixed-line Market



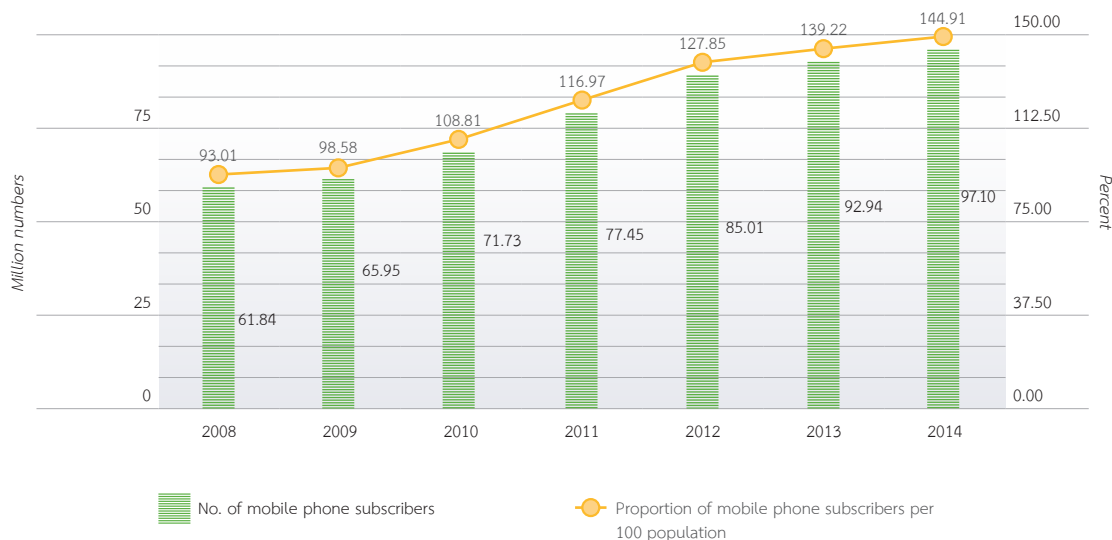
Source: Telecommunications Policy and Resources Management Bureau



## 2) Market of mobile service

The number of mobile phone subscribers in 2014 was 97.10 million numbers which is risen comparing to the year 2013 that was 85.01 million numbers, or the growth rate increased 4.48 percent. The details are shown in Chart 42.

Chart 42: Number of Mobile Phone Service Subscribers (2008 - 2014)



Source: Telecommunications Policy and Resources Management Bureau

Having categorized the number of mobile phone services subscribers by the type of service usage, it is found that in 2014 the number of mobile service subscribers were 97.10 million numbers, in which 84.24 million numbers, or 86.76 percent of total mobile phone subscribers, were subscribed for prepaid mobile service, while the rest 12.86 million numbers, or 13.24 percent of total mobile phone subscribers were subscribed for postpaid mobile service and this made the difference of 7-fold. The proportion of prepaid mobile service subscribers was slightly declined comparing to the year 2013 which the number of prepaid mobile service subscribers was about 81.66 million numbers or representing 87.86 percent of the total mobile service subscribers. The number of postpaid mobile service subscribers was slightly increased or accounted for 12.14 percent. The details are shown in Chart 43.



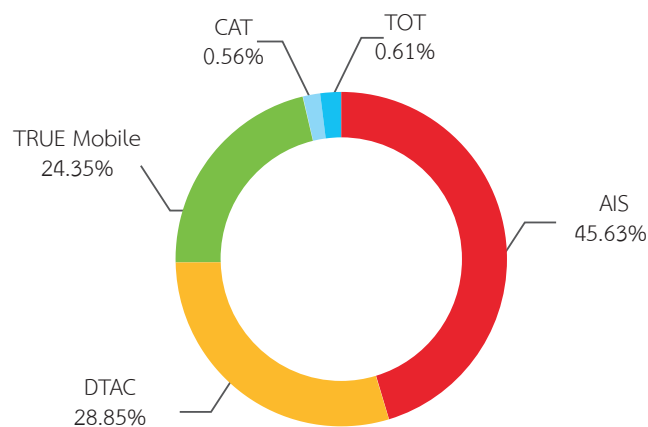
**Chart 43:** Proportion of Pre-paid and Post-paid Mobile Phone Service



Source: Telecommunications Policy and Resources Management Bureau

Having considered the market share of mobile phone services in 2014, it is found that the AIS group holds the highest market share of 45.63 percent ranks, followed by the DTAC group who has the market share of 28.85 percent, and the HHI value of the mobile phone service market in 2014 was 3,508. The details are shown in Chart 44.

**Chart 44:** Market Share of Mobile Phone Service in all Categories in 2014



Source: Telecommunications Policy and Resources Management Bureau

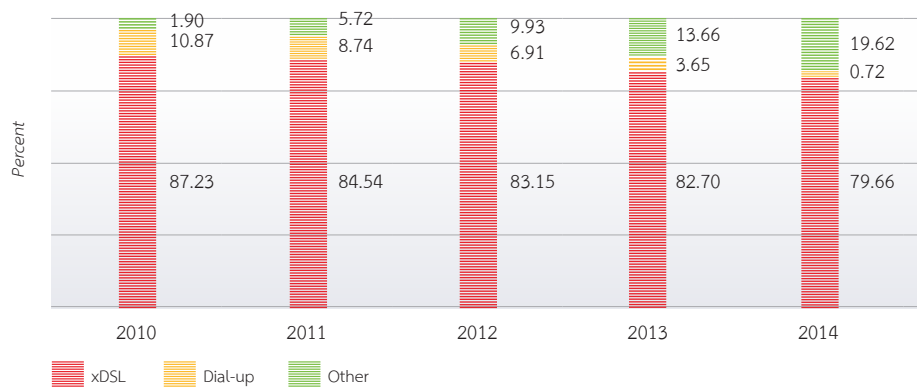




### 3) Market of internet service

The internet service in Thailand has been developed and changed its form of service provision and usage in various ways. The internet service provider (ISP) provides service directly to subscribers or provides the access to internet services of the network provider in the route for the provision of service to end users and international internet gateway (IIG) service providers that links internet users in Thailand to the international internet network. At present, the market of narrowband internet service is about to disappear from the internet service market with only 0.72 percent of the total usage of internet services in the year 2014. Meanwhile, the broadband internet service has decreased to 79.99 percent of all internet services usage and it is likely to fall when compared to the year 2010 - 2013. On the contrary, the use of internet service through other services has become more popular, especially the FTTP and Cable Modem which increased to 200.96 percent and 51.71 percent respectively comparing to the year 2013.

Chart 45: Proportion of Value of Internet Connection during 2010 - 2014

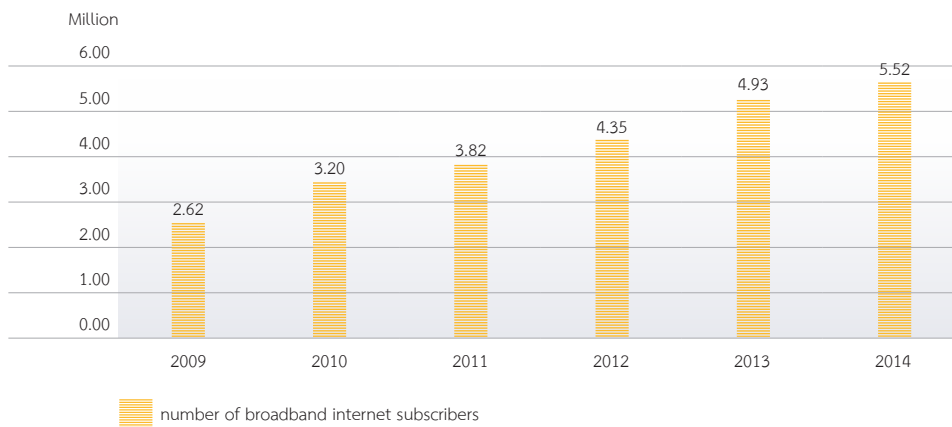


Source: Telecommunications Policy and Resources Management Bureau

The rapid growth of the number of broadband internet service subscribers has made the number of broadband internet service subscribers increased to 5.52 million subscribers in 2014 and the increase of broadband internet service subscribers has compensated the reducing number of narrowband internet service. In other words, some subscribers of the narrowband internet service have cancelled the service and subscribed the broadband internet service instead which made the proportion of broadband internet service subscribers reached 8.23 subscribers per 100 populations, or 27.36 households that have subscribed broadband internet service per 100 households throughout the country. The details are shown in Chart 46 and 47.

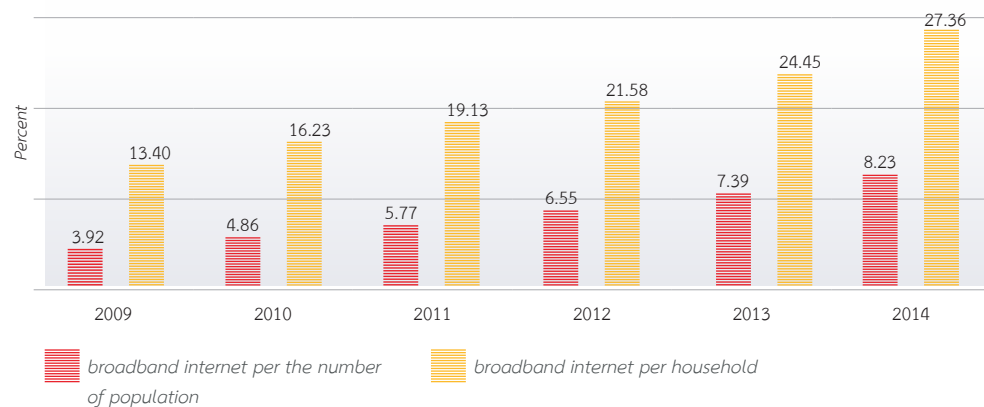


**Chart 46:** Number of Broadband Internet Subscribers during 2009 - 2014



Source: Telecommunications Policy and Resources Management Bureau

**Chart 47:** Number of Broadband Internet Subscribers per Number of Population and Households (2009 - 2014)



Source: Telecommunications Policy and Resources Management Bureau

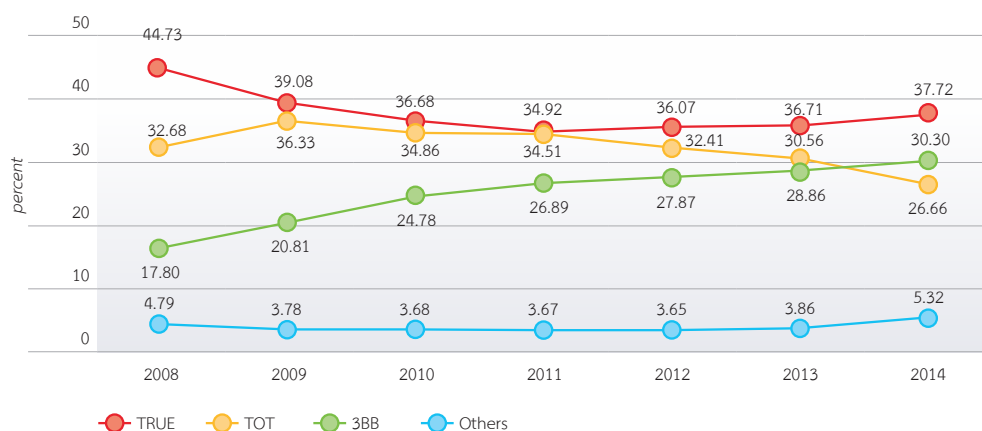
From the analysis of competition environment in the broadband internet market nowadays, it is found that the major service providers still are in the group or service of fixed-line service providers by establishing their sub-companies for providing internet service and the internet service of network providers who own the network and have the rights in the network according to the joint venture contract. These have brought the service providers the advantages in terms of cost of providing services in which the services could be provided at no cost for network rental or being charged for the network access at low cost, as well as be able to provide the services to their service users continuously. In the market share of the xDSL internet interconnection service providers, the incumbent has its connection with the fixed-line service providers.



During the year 2009 - 2014, True Internet Company Limited (TRUE) is the leader in broadband internet market in 2014 with the market share of 37.72 percent, which is increased when compared to the year 2013 that the proportion was 36.71 percent, followed by the 3BB group that the market share was 30.30 percent, which is increased when compared to the year 2013 that the proportion was 28.86 percent. In addition, TOT Public Company Limited, the service provider, has a market share decreased from 30.56 percent in the year 2013 to 26.66 percent.

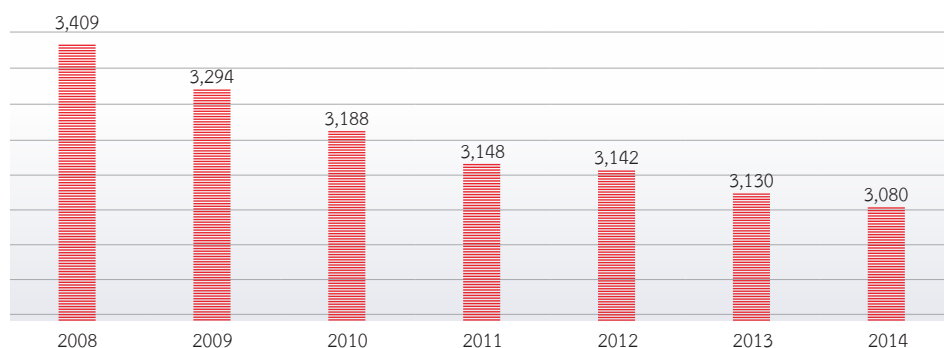
The other internet service providers (ISPs) who have not concerned with the provision of PSTN network service have the market share in 2014 of 5.32 percent, increasing when compared to the year 2013 the market share was only 3.86 percent, details are as shown in Chart 48, and the HHI value is likely to decline continuously, and by the end of the year 2014, the HHI value is 3,080. Details are shown in Chart 49.

Chart 48: Market Share of Broadband Internet Service (2008 - 2014)



Source: Telecommunications Policy and Resources Management Bureau

Chart 49: Herfindahl Hirschman Index (HHI) Value of Broadband Internet Market



Source: Telecommunications Policy and Resources Management Bureau



### 3. The notice on the action in the nature of dominance in broadcasting and telecommunications services

- 1) The notice on the action in the nature of dominance in broadcasting services

The NBTC has formulated the (draft) NBTC Notification on Nature and Measure for Regulating the Mergers, Cross-Shareholding, and Dominance in the Broadcasting and Television Services B.E. .... in order to determine the nature of mergers, rights possession across media, or dominance in broadcasting and television services with spectrum-used among mass media or others which will be the obstruction to the freedom to perception of information or block of obtaining various information of people.

- 2) The notice on the action in the nature of dominance in telecommunications services

In 2014, the Office of NBTC had carried out the operation concerning mergers under the NBTC Notification on Criteria and Procedures of Mergers and Cross-Shareholding in Telecommunications Service B.E.2553 (2010) as follows:

The Super Broadband Network Company Limited has notified of having mergers with Information Highway Company Limited by the acquisition of Information Highway Company Limited in the proportion of 29 percent of total shares at the amount of 14.5 million baht. The company had paid 25 percent of the registered value for the shares accounted for 3.625 million baht and it was considered receiving assets from another licensee with the value not more than 50 million baht and in accordance with the provision of the Notification, Article 4, Paragraph 2. The merger has not affected the competition and the Office of NBTC already informed the company of the result of consideration for its acknowledgement.

### 4. Report on quality of service and telecommunications service rates

#### Quality of service

To protect consumers to get a quality telecommunications service and to be in line with the NTC Notification on Standard and Quality of Telecommunication Service Provision (Voice), and the NBTC Notification on Standard and Quality of Telecommunication Service Provision (Data) for Mobile Phone Network, by setting the indicators for measuring quality of service to be applied to the operators. Moreover, the Office of NBTC has investigated and analyzed the standard of quality of service in whether voice service which consisted of mobile phone services, fixed-line services, and public phone services, or monitoring the quality of mobile phone service (data).





The Office of NBTC will conduct the random inspection of quality of mobile phone services in all provinces across the country<sup>15</sup> at least twice a year and investigating from the report on quality of services provided by the operators which must be submitted to the Office of the NBTC on a quarterly basis, as detailed below.

- 1) Investigation of quality of service (voice) by having the operators submitted their reports on the quality of service to the Office of NBTC according to the indications of quality of services (voice) in each type of services as follows:

- Mobile phone services have been measured for the quality of service such as a success call ratio in case of calls within the same operator's network, a success call ratio in case of calls across different operators' network, a success call ratio per total number of calls, ratio of the dropped calls, rate of complaints about billing errors, and waiting times for being served by the call center agents.

- Fixed-line services have been measured for the quality of service such as duration for service subscription, percentage of a success service installation within a given time, duration for repairing, a success call ratio in case of calls within the same operator's network and calls across different operators' network, billing errors, and waiting times for being served by the call center agents.

- Public phone services have been measured for the quality of service such as service availability of public phones equipment, a success call ratio in case of calls within the same operator's network and calls across different operators' network, and waiting times for being served by the call center agents.

- Long distance call services via satellite communication have been measured for the quality of service such as duration for service subscription, percentage of a success installation of service within a given time, duration for repairing, percentage of duration that has been affected by the damage of network equipment, an unsuccess call ratio in case of calls within the same satellite network, duration for call interconnection, billing errors, and waiting times for being served by the call center agents.

<sup>15</sup> The Office of NBTC has divided the areas for measuring the mobile phone quality of services into 7 areas as follows:

1. Some areas of Bangkok and its vicinities consisting of Bangkok, Nonthaburi, Pathum Thani, Samut Prakan, and Ayutthaya.
2. Some areas of Central region consisting of 7 provinces which are Ayutthaya, Ang Thong, Lop Buri, Sing Buri, Chai Nat, Saraburi, and Suphan Buri.
3. Some areas of North region consisting of 17 provinces which are Chiang Mai, Phitsanulok, Nakhon Sawan, Chiang Rai, Phrae, Nan, Phayao, Uttaradit, Mae Hong Son, Lamphun, Lamphang, Kamphaeng Phet, Tak, Sukhothai, Phichit, Phetchabun, and Uthai Thani.
4. Some areas of East region consisting of 9 provinces which are Chon Buri, Pattaya, Rayong, Nakhon Nayok, Prachin Buri, Chachoengsao, Sa Kaeo, Chanthaburi, Trad.
5. Some areas of Northeast region consisting of 20 provinces which are Nakhon Ratchasima, Ubon Ratchathani, Khon Kaen, Udon Thani, Buri Ram, Surin, Si Sa Ket, Yasothon, Chaiyaphum, Amnat Charoen, Nong Bua Lam Phu, Maha Sarakham, Roi Et, Kalasin, Sakon Nakhon, Nakhon Phanom, Mukdahan, Bueng Khan, Nong Khai.
6. Some areas of South region consisting of 7 provinces which are Phuket, Surat Thani, Hat Yai, Nakhon Si Thammarat, Chumphon, Ranong, Phang-Nga, Krabi, Trang, Phatthalung, Satun, Songkhla.
7. Some areas of West region consisting of 7 provinces which are Prachuap Khiri Khan, Nakhon Pathom, Samut Sakhon, Ratchaburi, Kanchanaburi, Samut Songkhram, Phetchaburi.



The Office of NBTC has investigated the quality of telecommunication services (voice) of service providers in each type as shown in Table 79.

Table 79: Telecommunications Service Providers

No.	Service	Service Providers
1	Mobile phone service	CAT Telecom Public Company Limited
		Real Move Company Limited
		Advance Info Service Public Company Limited
		Total Access Communication Public Company Limited
		True Move Company Limited
		Real Future Company Limited
		DTAC TriNet Company Limited
		Advance Wireless Network Company Limited
2	Fixed-line service	True Corporation Public Company Limited
		CAT Telecom Public Company Limited
		True Universal Convergence Company Limited
3	Public phone service	True Public Communication Company Limited
		True Corporation Public Company Limited
4	Distance phone service via satellite communication	ACeS Regional Services Company Limited

Data as of 3<sup>rd</sup> quarter of 2014

Source: Telecommunications Standard and Technology Bureau

In the 3<sup>rd</sup> quarter of the year 2014, the overall standards and quality of telecommunications service (voice) of each telecommunications service provider have met the minimum standards and quality of service at a relatively high standard as set by the NBTC Notification. However, some service providers such as CAT Telecom Public Company Limited still have the parameters value of telecommunications quality of service (voice) below the standards and those parameters are the waiting times for being served by the call center agents which was measured in this quarter at 110 seconds while the Notification prescribed that the waiting time must be less than 60 seconds. Details are shown in Table 80.



**Table 80:** Telecommunications Quality of Service (Voice) that failed to meet the Required Standards

Service Provider	Type of Services	Parameters which are not conformed to Standard	Target	Measurable Average Value	Explanation
CAT Telecom Public Company Limited	Mobile Phone	Waiting time for having been served by call center	Standard value under the Notification shall not exceed 60 seconds	The average value measured in the quarter is 110 seconds	<u>Company's explanation</u> The company had explained that due to the change of service promotion on My and the operation and maintenance system has not supported some functions, having sent SMS to suspend debt on My service, clients who use the My SIM Card for their Tablets were unable to top up by themselves so they have to call the Call Center to ask the agents for providing top up service, and those made the longer time of the service.

Data as of the 3<sup>rd</sup> Quarter of 2014

Source: Telecommunications Standard and Technology Bureau

- Monitoring of the quality of telecommunications services (data) for the mobile phone network by requesting 7 service providers prepare their reports on quality of service measurement and submit to the Office of NBTC. Details are shown in Table 81.

**Table 81:** Telecommunications Service Providers (Data) for Wireless Network

Service	Service Providers
Data for mobile phone network	CAT Telecom Public Company Limited
	Advance Info Service Public Company Limited
	Total Access Communication Public Company Limited
	Real Future Company Limited
	DTAC TriNet Company Limited
	Advance Wireless Network Company Limited
	TOT Public Company Limited

Source: Telecommunications Standard and Technology Bureau



The indicators of quality of service that are defined in the NBTC Notification on Standards of Quality of Telecommunications Services (Data) for Mobile Phone Network include duration for internet service subscription, duration for call waiting for service inquiries/service charges/advice on services from an agent, percentage of complaints on billing accuracy, duration for resolving complaints from users, and percentage of duration that the service have not been available for the provision via radio frequency.

In the 3<sup>rd</sup> quarter of the year 2014, the overall standards and quality of telecommunications service (data) of each telecommunications service provider have met the minimum standards and quality of service at a relatively high standard as set by the NBTC Notification. However, some service providers, such as CAT Telecom Public Company Limited, still have the parameters value of telecommunications quality of service (voice) below the standards and those parameters are the waiting times for being served by the call center agents which was measured in this quarter at 110 seconds while the Notification prescribed that the waiting time must be less than 60 seconds. Details are shown in Table 82.

**Table 82:** Telecommunications Quality of Service (Data) that failed to meet the Required Standards

Service Provider	Type of Services	Parameters which are not conformed to Standard	Target	Measurable Average Value	Explanation
CAT Telecom Public Company Limited	Mobile Phone	Waiting time for having been served by call center	Standard value under the Notification shall not exceed 60 seconds	The average value measured in the quarter is 110 seconds	<u>Company's explanation</u> The company had explained that due to the change of service promotion on My and the operation and maintenance system has not supported some functions, having sent SMS to suspend debt on My service, clients who use the My SIM Card for their Tablets were unable to top up by themselves so they have to call the Call Center to ask the agents for providing top up service, and those made the longer time of the service.

Data as of 3<sup>rd</sup> quarter of 2014





Source: Telecommunications Standard and Technology Bureau





- 3) Monitoring of the quality of telecommunications services by the Office of NBTC
- (1) In 2014, the Office of NBTC had conducted the test of quality of telecommunications services (voice) in type of Mobile to PSTN on 3G 2.1 GHz network and it is found that True Move Company Limited has failed to meet the standard on a success call ratio in case of calls within the same operator's network. In other words, a success call ratio in the 1<sup>st</sup> half year was less than 90 percent due to the network coverage of TRUEMOVE-H 3G 2100 MHz are not covered all areas. However, in the 2<sup>nd</sup> half year, the network coverage has been improved and provided for service usage. The details are shown in Table 83.

**Table 83:** Tests of Telecommunications Quality of Services (Voice) on 3G 2.1 GHz Network (Mobile to PSTN)

Parameter of Quality of Services	Standard Value	Result of Quality of Service Measurement				Remarks
						
1. Success Call Ratio in case of calling within the same network	Not less than 90 percent	Passed	Passed	Failed	Passed	True Move H network has a success call ratio less than the standard due to in the first half year, True Move H 3G 2100 MHz have not covered areas. Later, in the second half year, it has been improved for service provision
2. Drop Call Ratio within the same network	Not exceed than 2 percent	Passed	Passed	Passed	Passed	-






Source: Telecommunications Enforcement Bureau

- (2) The results of testing the quality of telecommunications service (voice) in type of Mobile to Mobile on the 2G/3G network of 5 service providers explained that only one service provider, TOT Public Company Limited, has failed to meet the standard on a success call ratio in case of calls within the same operator's network which must not less than 90 percent, due to TOT has some problems of network interconnection of prepaid mobile system in some areas of Bangkok and its vicinities in the early year of 2014. For the 2<sup>nd</sup> half year, TOT has improved the network interconnection and it can resolve the problem.



However, there was another problem on signal strength which has not covered all areas of the North, Central, Northeast and South regions but in a few areas and it is the cause of calls difficulty and call dropped. Details are shown in Table 84.

**Table 84:** Tests of Telecommunications Quality of Services (Voice) on 2G/3G Network (Auto Network Mode)






Parameter of Quality of Services	Standard Value	Result of Quality of Service Measurement					Remarks
							
1. Success Call Ratio in case of calling within the same network	Not less than 90 percent	Passed	Passed	Passed	Failed (except in some areas of the West region)	Passed	The TOT 2G/3G network has a success call ratio less than the standard due to 2 problems as follows: in some areas of Bangkok and its vicinities, TOT had encountered the problem of network interconnection in the first half year for prepaid SIM CARD, however, in the second half year there were some improvement which led to the better services in some areas of the Central, North, East, Northeast, and in the South had some problems of weak signals in some areas which was the cause of call failure and call drop.
2. Drop Call Ratio within the same network	Not exceed than 2 percent	Passed	Passed	Passed	Passed	Passed	-

Source: Telecommunications Enforcement Bureau








- (3) The results of testing the quality of telecommunications service (data) in Auto Network Mode on the 2G/3G network of 5 service providers explained that MY 2G/3G network has a call setup success rate in low level in some areas of the Central region due to in the 1<sup>st</sup> half year there was a low throughput download. Although it has been improved in a later time but when includes the call setup success rate throughout the year, the rate is still lower than the standards set by the NBTC in which the call setup success rate shall not be less than 80 percent. For the average speed test for FTP Download Average Throughput, it is found that all service providers have meet the requirement of the standards set by the NBTC. Details are shown in Table 85.

**Table 85:** Tests of Telecommunications Quality of Services (Data) on 2G/3G Network (Auto Network Mode)

Parameter of Quality of Services	Standard Value	Result of Quality of Service Measurement					Remarks
							
1. Call Setup Success Rate	Not less than 80 percent	Passed	Passed	Passed	Passed	Failed (in some areas of the Central region)	The MY 2G/3G network has a success ratio of data download low in some areas of the Central region due to in the first half year there was a Low Throughput Download although in a later time, the success ratio of data download was higher but when calculated the success ratio of data download throughout the year, it was still below the standard



**Table 85:** Tests of Telecommunications Quality of Services (Data) on 2G/3G Network  
(Auto Network Mode) (continued)

Parameter of Quality of Services	Standard Value	Result of Quality of Service Measurement					Remarks
							
2. FTP Download Average Throughput	- for 3G and beyond, not less than 345 kbps - for 2G, not less than 48 kbps	Passed	Passed	Passed	Passed	Passed	-
3. FTP Upload Average Throughput	- for 3G and beyond, not less than 153 kbps - for 2G, not less than 20 kbps	Passed	Passed	Passed	Passed	Passed	-

Source: Telecommunications Enforcement Bureau

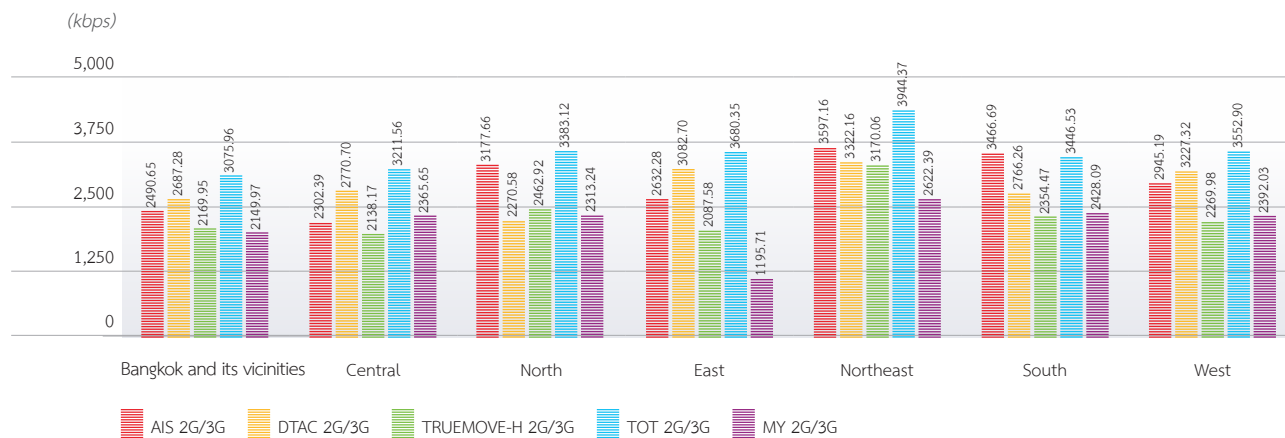
From the Upload/Download Average Throughput Test with data size of 5 Mbps, 3 Session, it is found that all service providers has its average data throughput of more than 345 kbps as the results shown below:

- In some areas of Bangkok and its vicinities, TOT has the best average throughput, followed by DTAC, AIS, TRUEMOVE-H, and MY, respectively.
- In some areas of the Central region, TOT has the best average throughput, followed by DTAC, MY, AIS and TRUEMOVE-H, respectively.
- In some areas of the North region, TOT has the best average throughput, followed by AIS, TRUEMOVE-H, MY, and DTAC, respectively.
- In some areas of the East region, TOT has the best average throughput, followed by DTAC, AIS, MY, and TRUEMOVE-H, respectively.
- In some areas of the Northeast region, TOT has the best average throughput, followed by AIS, DTAC, TRUEMOVE-H, and MY, respectively.
- In some areas of the West region, TOT has the best average throughput, followed by DTAC, AIS, MY and TRUEMOVE-H, respectively. Details are shown in Chart 50.





Chart 50: Average Speed of Information Transmission in 2014 (Data Size: 5 Mbps 3 Session)



Data as of the 3<sup>rd</sup> Quarter of 2014

Source: Telecommunications Enforcement Bureau

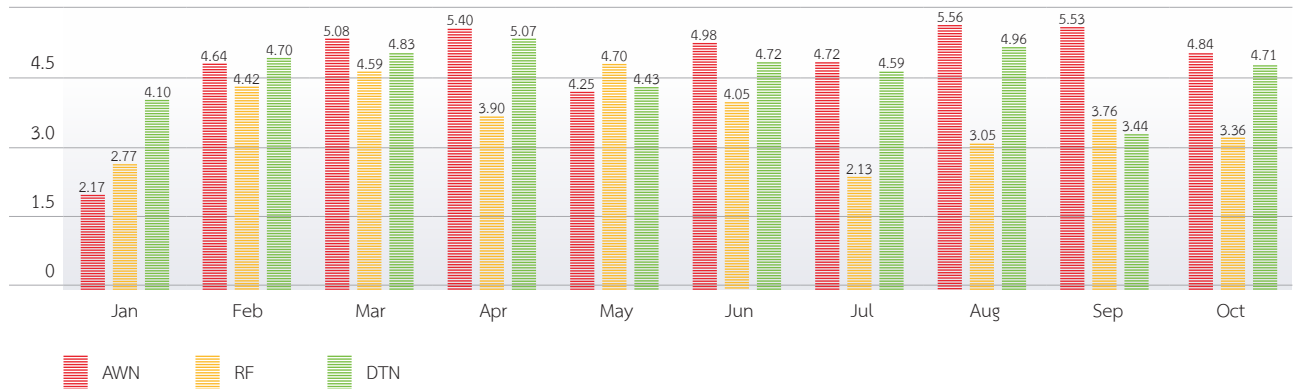
In cases where the licensee fails to comply with the NBTC Notifications as mentioned above or refrains from any operation, the provisions of Section 9 of the Telecommunications Business Act B.E.2544 (2001) regarding administrative penalties shall be applied.

- 4) Testing of quality of IMT service, in the frequency band of 2.1 GHz which the Office of NBTC has monitored the service provision of AWN, RF and DTN during January - October 2014 in areas of Bangkok. The test was divided into 2 parts as follows:
  - Test results on Voice Call, it is found that AWN, RF and DTN has the voice successful call at 100 percent, which met the requirement of the Notification on Quality of Service prescribing that a success call must be not less than 90 percent.
  - Test results on FTP Download, it is found that AWN, RF and DTN has its average FTP download throughput of more than 345 kbps which met the requirement of the Notification on Quality of Telecommunications Service (Data) for Mobile Phone Network B.E.2555 (2012). Details are shown in Chart 51.



Chart 51: Average Speed of Information Transmission in Bangkok

Troughput  
(mbps)  
6.0



Data as of October 2014

Source: Report on the Follow-up and Regulating of the International Mobile Telecommunications (IMT) Services in the Frequency Band of 2.1 GHz in October 2014,  
Working Group on the Follow-up and Regulating of the International Mobile Telecommunications (IMT) Services in the Frequency Band of 2.1 GHz

Moreover, the Telecommunications Commission and the Office of NBTC had conducted the roadshows and the monitoring of quality of mobile phone signals by using the mobile unit in all regions under the project on the “TC meets the Citizen Year 2” as follows:

- No. 1 West region, in Prachuap Khiri Khan
- No. 2 South region, in Chumphon
- No. 3 Northeast region, in Khon Kaen
- No. 4 North region, in Chiang Rai
- No. 5 Central region, in Samut Sakhon
- No. 6 Central region, in Bangkok

For the 2<sup>nd</sup> roadshow on 29 May 2014, the TC had joined the operators’ representatives to monitor the mobile phone signal in Bang Kroi Community, Moo 9, Hong Charoen Sub-district, Tha Sae District, Chumphon, which located in the area bordering with Myanmar and found that there was no mobile phone signal in 2G systems but can found mobile phone signal in 3G systems. Therefore, to solve such problems, the operators has jointly interconnected signals in 2G systems by means of network sharing, and will offer the sale on 3G mobile phone devices on special prices to locals. In addition, after receiving complaints in case of mobile phone signals fails to meet the standards in Phitsanulok, the Central region, the TC and the Office of NBTC had carried out the monitoring of mobile phone signals of the operators to fix the problems of the public.



1 Taking the mobile unit for the drive test on signal quality of mobile phone services in Bangkok.

- Also, in a political situation the Office of NBTC has monitored the signal quality of mobile phone services by using mobile unit for the drive test on signal quality of services both from the Office of NBTC itself and 3 operators namely AIS, DTAC, and TrueMove H, to monitor the signal quality of mobile phone services in areas of Bangkok for 24 hours in 5 routes which were the areas where protesters got gathering.  
Route 1 Democracy Monument - Thonburi  
Route 2 Victory Monument - Pathumwan Intersection - Ratchaprasong - Lumpini - Silom  
Route 3 Lard Phrao Intersection - Viphawadi - Agricultural University Circle  
Route 4 Sukhumvit - Asoke  
Route 5 Government Complex - Chaengwattana Road

From the signal test on 13 January 2014, it is found that the data service, download speed, and service provider's information had its speed rate as prescribed by the NBTC Notification which is faster than 345 kbps; AIS's speed is 1680.714 kbps, DTAC's speed is 1650 kbps, TRUE MOVE H's speed is 1792.429 kbps, TOT's speed is 2429.429 kbps, MY's speed is 2143.429 kbps.

In voice services, it is found that the service providers have the success call ratio in the same operator's network more than 90 percent, and the call drop rate passed the standard set by the NBTC except one service provider who failed to meet the requirement and the Office of NBTC had already notified the service provider to improve the quality of service.

- In case of disaster and flooding in several areas of the South such as Nakhon Si Thammarat, Surat Thani, Phatthalung, Yala and Narathiwat, the Office of NBTC has sent letters to the mobile phone service providers to prepare its readiness and follow-up the flood situation which may have affected or damaged on the telecommunications network or equipment either in the fixed-line service or mobile phone services so that the people living in those areas were able to communicate via mobile phone services.



### Telecommunication Service Fees

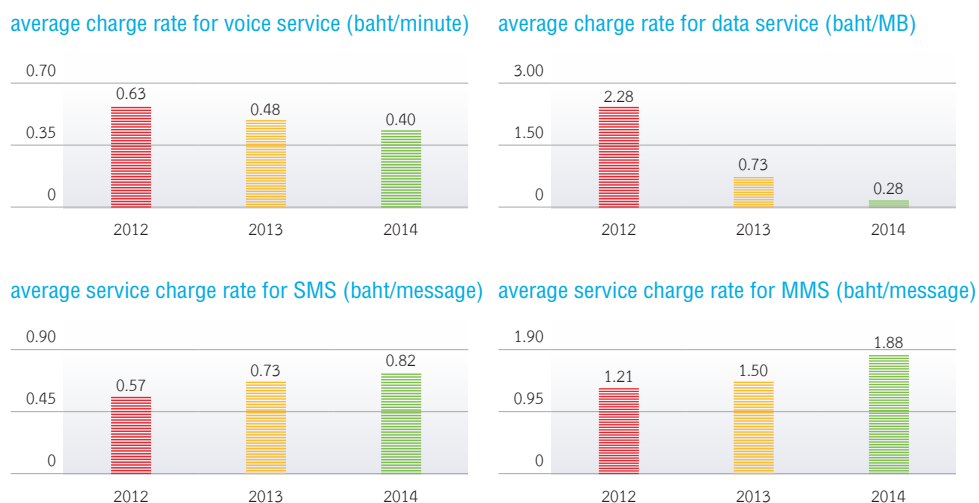
The NBTC has conducted an analysis of the main service fees of 4 markets in 2014: fixed-line service, mobile phone service, international telephone service, broadband internet service, which can be summarized as follows:

- Mobile Phone Services

The average rate of service charges in 2014 of mobile phone services has its interesting movement which can be seen by the average rate of service charges of voice services in 2014 stood at 0.40 baht per minute, which is likely to decline from the year 2012. On the contrary, the service charge rate for SMS service has been rising steadily from 0.73 baht per a message from 2013 to 0.82 baht per a message in the year 2014, or having increased 10.95 percent. The service charge rate for MMS increased from 1.50 baht per a message to 1.88 baht per a message in 2014 or having 25.33 percent increased. For the interesting movement of service charge rates in 2014, it is focused on data service charge rate which had decreased 61.64 percent from the year 2013 or decreased 0.73 baht per megabyte to 0.28 baht per megabyte in 2014.

The reasons that the movement of service charge rate is interesting because these figures show that currently the service providers in mobile phone service market have become active with the increase of mobile phone users continuously and the demand for data services usage of the users has increased after the 3G/4G service became popular. The service providers focused on reducing data service charge rate and trying to maintain the level of charge rate on voice service which still having a number of users and increase the rates of SMS and MMS service charge that the number of users dropped so as to be an incentive for users to subscribe the efficient data service with a lower rates as well. Details are shown in Chart 52.

**Chart 52: Service Rates for Mobile Phone Service (2012 - 2014)**



Source: Telecommunications Tariffs Bureau





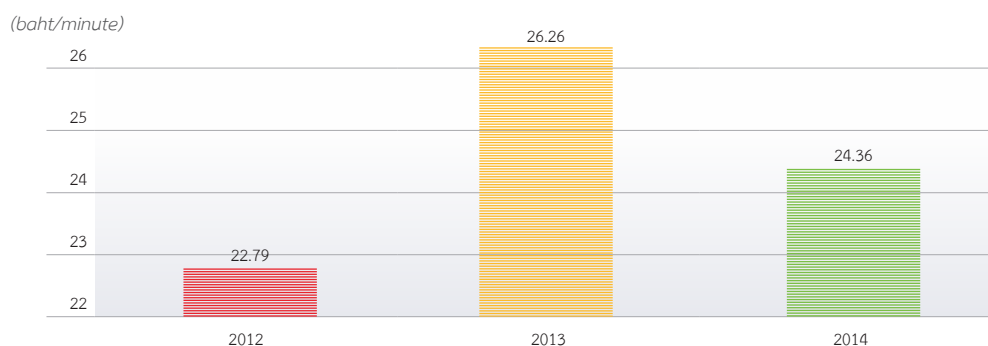
- Fixed-line Services

At present, the demand of users of fixed-line service has declined constantly, therefore, the service providers have made various attempt to maintain the users base and the level of average revenue per month per number by enhancing capabilities to compete with mobile phone services. The service providers have also offered various promotions to attract users and stimulate more use of mobile services such as call forwarding, call waiting, limiting calls service, as well as launching promotions on a toll-free number for the business entrepreneurs, including the promotion on monthly flat rate package at 3 baht per minute for calling to fixed-line and mobile phone services, etc.

- International Telephone Services

For the average rate of international telephone service in 2014, it had decreased from 26.26 baht per minute to 24.36 baht per minute or accounted for 7.23 percent. Details are shown in Chart 53.

Chart 53: Average Rates for International Telephone Services



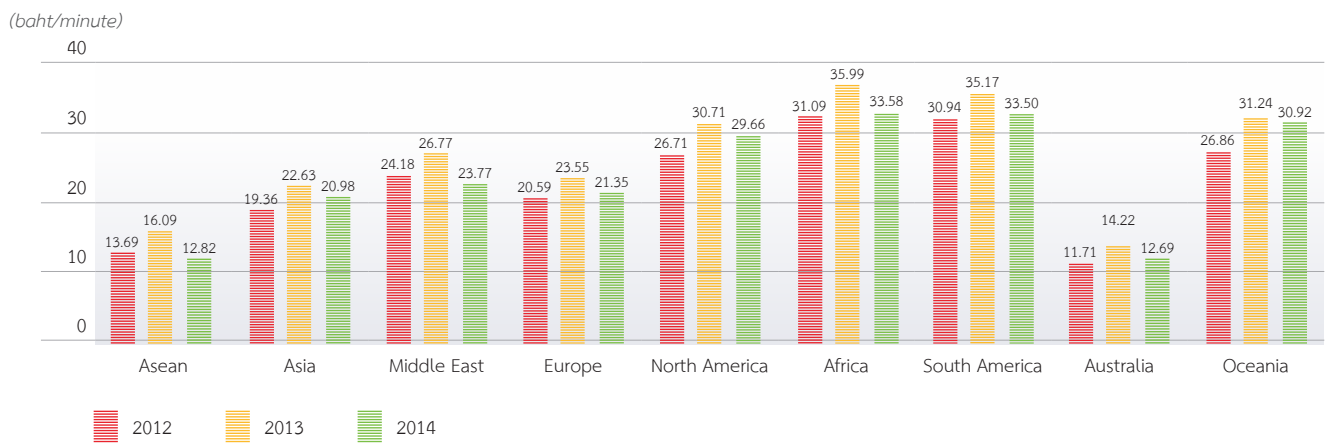
Source: Telecommunications Tariffs Bureau

Having considered the average rates of international telephone services which categorized by continent, it is found that the average service rates of all continents/regions of the world have decreasing rates from 2013. The Australia continent has the lowest service rates at 12.69 baht per minute, followed by ASEAN region at 12.82 baht per minute, Asia Continent at 20.98 baht per minute, Europe continent at 21.35 baht per minute, the Middle East region at 23.77 baht per minute, North America region at 29.66 baht per minute, South America region at 33.50 baht per minute, and Africa continent has the most expensive rates at 33.58 baht per minute. Details are shown in Chart 54.



The reason for the decrease of the average service rate of international telephone services of all countries may be the impact of the Voice Over Internet Protocol (VoIP) service which has become more popular than in the International Direct Dialing (IDD) service due to the VoIP is a lower cost technology that enables service providers to set service rates in cheap price to attract users. However, business customers and users who want a quality of voice have still chosen the IDD more than VoIP.

**Chart 54:** Average Rates for International Telephone Services in each Continent/Region

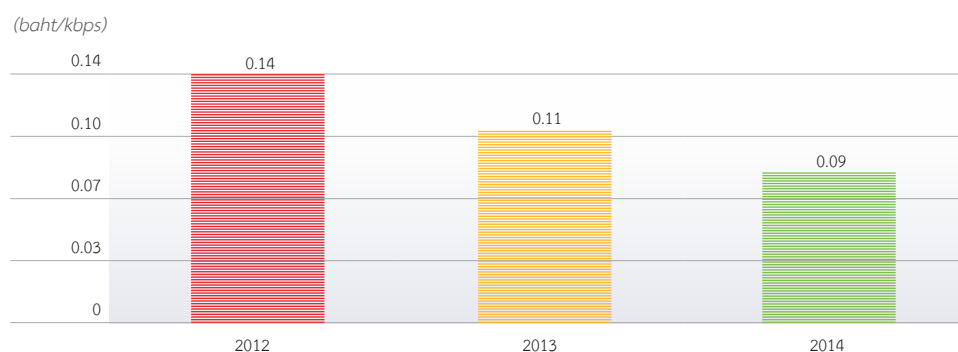


Source: Telecommunications Tariffs Bureau

#### ● Broadband Internet Services

Broadband internet service has been provided in a variety of speed depending on the needs of service users. The speed of data download starts at 3 Mbps up to 100 Mbps. The broadband service rates are varied according to the speed rate of data transmission or also known as kbps (Kilobit Per Second). In 2014, the average service rate for broadband internet is 0.09 baht/kbps which dropped from the year 2013 for 18.18 percent, or 0.02 baht/kbps. Details are shown in Chart 55.

**Chart 55:** Average Rates of Broadband Internet Service



Source: Telecommunications Tariffs Bureau



The reason that the service rate of broadband internet services has reduced may be due to the service providers could gain benefits from economy of scale by the increasing number of broadband internet users steadily. As a result, the service providers can reduce more service rates. Also, at present the service providers are alert for the preparation to support situations and the rising number of competitors in the market by offering new services that can respond to the needs of each group of service users. Also, the users have the increased demanded for data services. These result in the more reduction of the service rates.

The regulation of mobile phone service rates in the frequency band of 2.1 GHz of 3 licensees, namely Advance Wireless Network Company Limited (AWN), Real Future Company Limited (RF), and DTAC TriNet Company Limited (DTN), to comply with the conditions attached to the license which required that the licensee must reduce the service rates in an average of not less than 15 percent of the service rates on the date of license granted (7 December 2014). Details are shown in Table 86.

**Table 86:** Mobile Phone Service Rates in Frequency Band of 2.1 GHz in 2014

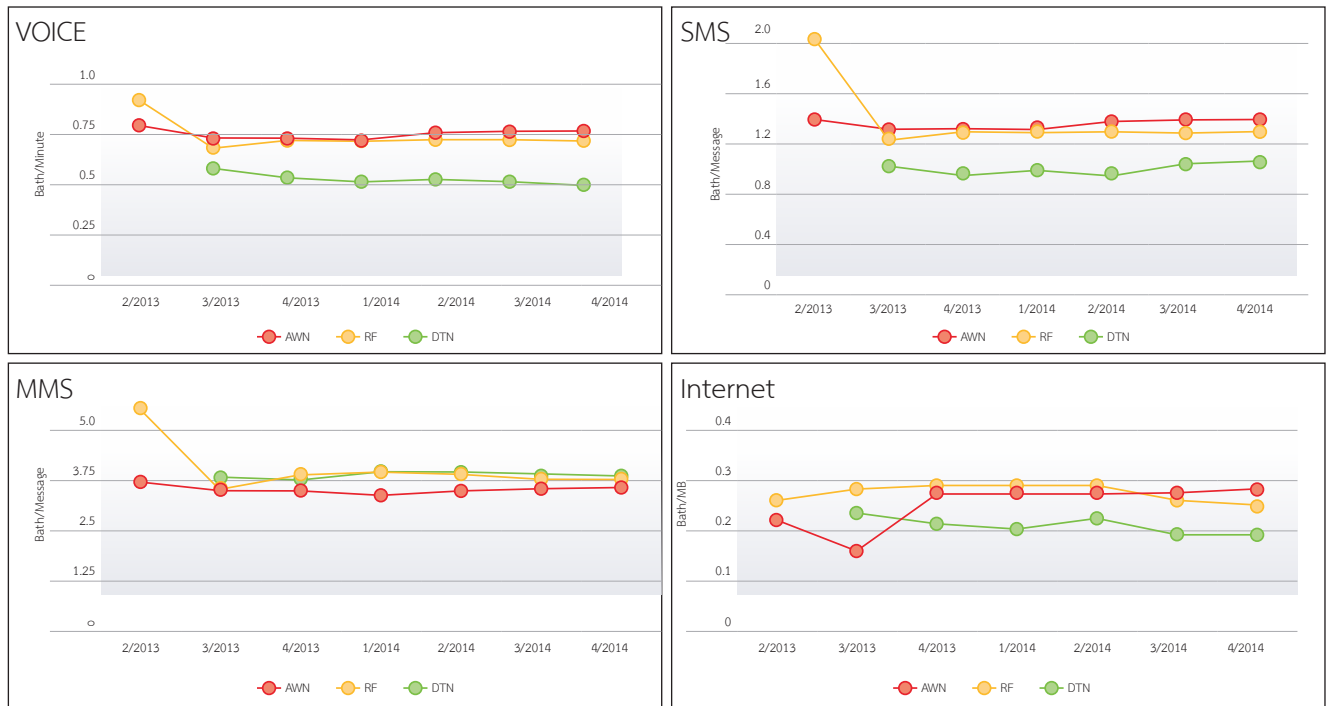
	Voice (baht/minute)	SMS (baht/message)	MMS (baht/message)	Internet (baht/MB)
Average rate as of 7 December 2012	0.97	1.56	3.90	0.33
Service rate that has to be reduced	0.82	1.33	3.32	0.28

*Source: Report on the Follow-up and Regulating of the International Mobile Telecommunications (IMT) Services in the Frequency Band of 2.1 GHz in October 2014, Working Group on the Follow-up and Regulating of the International Mobile Telecommunications (IMT) Services in the Frequency Band of 2.1 GHz*

From the regulation of Working Group on the Follow-up and Regulating of the International Mobile Telecommunications Services in the Frequency Band of 2.1 GHz, it is found that during January - December 2014 3 companies have offered sale promotional services which corresponded to the usage behavior of the users in each group of services, and reduced the service rates according to the conditions attached to the licenses. Details are shown in Chart 56.



Chart 56: Mobile Phone Service Rates in Frequency Band of 2.1 GHz in 2014



Source: 2 years with the issuance of the license to use spectrum and operate the International Mobile Telecommunications (IMT) services in the frequency band of 2.1 GHz (special edition) in December 2014, Working Group on the Follow-up and Regulating of the International Mobile Telecommunications (IMT) Services in the Frequency Band of 2.1 GHz







## Trends on Radio Broadcasting, Television Broadcasting and Telecommunications Industry in 2015

### 1. Trend on Broadcasting Services in 2015<sup>16</sup>

For the trend on broadcasting and television services in 2015, it is expected that the viewing on traditional TV (6 channels) is likely to gradually decrease continuously due to the viewers will turn to new digital TV channels in 2014, which is possible that the reason are from the coverage of digital television signal transmission in the provincial areas according to the plan for network expansion including the increase of digital TV coupons distribution under the project to support the citizen in the transition to digital terrestrial TV switch over. For those who already received the coupons but have not yet sure of the redeeming process and quality of the Set-top Box, or have not yet seen the necessity of the transition to digital system, or have still been in the process of decision-making before the expiry date of the first lot of coupons in May 2015, including the distribution of coupons in another phase, which help increased the installation of Set-top Box and the viewing of iDTV receiver especially in areas where TV antennas have been already used for viewing TV programs in analog systems (26.6 percent of all households throughout the country).

Moreover, the annual programming reshuffle of TV channels that major producers or content providers already programmed in the existing analog channels have moved their programs into new digital TV channels, especially if the popular TV programs are withdrawn such as game show, soap operas, or the programs relating to contest and competition, it would have the impact on the reduction of popularity of the viewers on the original channels and increase the popularity of the new channels instead.

However, the change occurred has shown the factors for maintaining the viewers base, or increasing the viewers base which are the quality of program content, types of program, and program production whether it will be able to respond to the public in wide area or not. This includes the publicity and marketing of each program or channel.

Also, when considering the behavior of media consumption of people that have changed, it is found that it can affect the way of viewing television or listening to radio, such as watching online television or retroactive viewing through internet or mobile application including listening to radio through computer with internet connected. It may results in the change of ratio of investment in media advertising as well. The radio media is likely to decline in 2015 while the television business which the digital TV channels are currently growing, if the installation of the Set-top Box and the viewing via the iDTV receivers as well as the popularity of viewing program content in digital TV channels continues to increase steadily, it may increase the proportion of advertising value of television from advertising value in all media in 2015.

<sup>16</sup> Data taken from Media agencies and Business Association of Thailand.



## 2. Trend on Telecommunications Services in 2015

The supporting factors on both supply and demand and the advancement of telecommunications technology has affected in the growth of the telecommunications market in a steady rate of increase. It is expected that by the year 2015 the growth rate will be rose not less than 7 percent from the previous year or accounted for telecommunications market value at approximately 0.55 trillion baht. The market of telecommunications services is still the major market of the overall value of communications market and telecommunications service which is the key driving factor come from the demand for telecommunication services usage in type of data services, which is currently gaining more popularity in the use steadily.

Whether the provision of non-voice services through fixed data network or provision of non-voice services through mobile data network, it could be predicted there will be an expenditure in the market of non-voice telecommunication services of at least not less than 14.5 percent whether the spectrum auction in the frequency bands of 900 MHz and 1800 MHz will be held in this year or not with the reasons of direct stimulating the demand side of the use or the result of stimulation on a variety forms of sale promotion of mobile phone service providers. Moreover, the service providers are trying to compensate their revenue per unit (ARPU) arising from the provision of voice services which is likely to decline constantly by accelerating the expansion of network to increase the provision of broadband internet services. These are all good signs that encouraged the growth steadily.

Nonetheless, a transaction or trade in the online world has become more popular and widespread. In 2015, social commerce will become one of the main channels of trading through online society. It will be a phenomenon that create value-added of the products and services in various forms, whether in form of the display of goods and services access, online publicity, being a centered channel of payment, etc. All of these transactions will enable developers to create and design new applications in order to support the needs of consumers and service providers. Moreover, it will encourage a number of new service providers in the online world and they will jointly offer more goods and services into the social business market.

The number of access rate of internet service has increased in each year and the expansion of telecommunications network to cover all areas and service users in Thailand. Therefore, the people life style nowadays is inevitable depended on communication channels via internet or it could be said that “internet is everything (Internet of Things – IoT)”. The popularity of the facilities equipment which is well-known in the Smart Gadgets or Wearable Devices included electronics devices with sensors, etc. It is also predicted that by the year 2015, the users’ behavior will always use their facility equipment via internet access, at any time, any place and will get more popular in the major urban areas of the country.

However, in the past two years, the domestic users have faced the obstacles and resistance for the use of cloud services such as the acceptance of security to use the services, etc., but in 2015 the cloud service providers in the world class will build more trust for service providers and users in the country more clearly. This will help ensure the organizations in Thailand of more confidence in the cloud services and reduce the concerns in safety, quality of services, and starting to subscribe private cloud service, as well as the use of hybrid cloud service and the cloud orchestration eventually.

# 6

## Budget Management in 2014

**OPU**

Organization and  
Process Understanding  
ความเข้าใจในองค์กร  
และระบบการทำงานอย่างมืออาชีพ

**RM**

Resource Management  
ความสามารถในการบริหารทรัพยากร

**TW**

Teamwork  
การทำงานเป็นทีม

at Motivation  
Innovation  
นวัตกรรม และนวัตกรรม

and Morality  
การทำงานด้วยความซื่อสัตย์  
และมีศีลธรรม

**NI**  
สำนัก



**LEAD**

Leadership

ความสามารถในการเป็นผู้นำ

**ROM**

Result-Oriented  
Management

การสั่งสิ่งใด

และแก้ปัญหาเพื่อมุ่งผลสัมฤทธิ์

**Manag**  
**Compe**

สมรรถนะ

**DEC**

Developing Empowerment  
and Coaching

การพัฒนาขีดความสามารถบุคลากร

**BTC**

งาน กสทช.

**ST**

Strategic Thinking

การคิดเชิงกลยุทธ์





## The Office of NBTC Expenditure Budget Report in 2014

In 2014, the Office of NBTC had implemented the annual Action Plan by setting up 5 plans for supporting the strategies of the Office of NBTC (2014 - 2016) consisted of the Organization Management Plan, Strategic Management and Corporate Affairs Plan, Spectrum Management and Regional Management Plan, and Telecommunications Management Plan, and projects/activities. The summary of performance and expenditure budget in 2014 are as shown in Table 87.

**Table 87:** Results of Expenditure Budget in 2014

unit: million baht

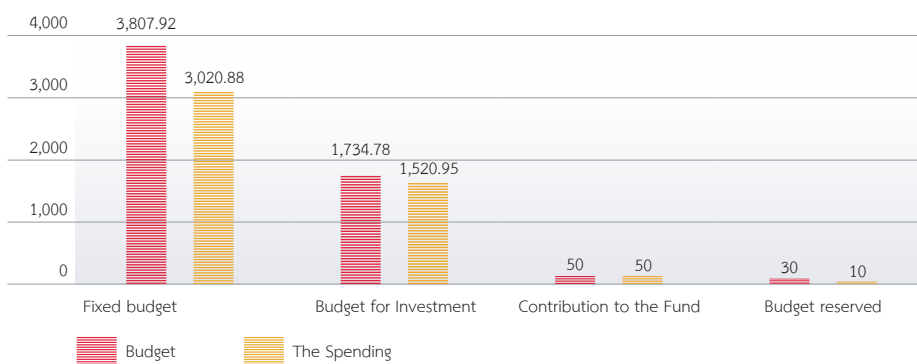
Details	Budget allocated	Expenditure	Percentage	Balance	Percentage
1. Fixed budget (expense for the NBTC and the Office of NBTC operation)	3,807.92	3,020.88	79.33	787.04	20.67
2. Budget for Investment (projects)	1,734.78	1,520.95	87.67	213.83	12.33
3. Contribution to the Fund	50.00	50.00	100.00	-	-
4. Budget reserved for emergencies and contingencies	30.00	10.00	33.33	20.00	66.67
<b>Total</b>	<b>5,622.70</b>	<b>4,601.83</b>	<b>81.84</b>	<b>1,020.87</b>	<b>18.16</b>

Source: Strategic and Budget Bureau

In 2014, the Office of NBTC had spent budget of 4,601.83 million baht from the allocated budget of 5,622.70 million baht or accounted for 81.84 percent. In comparison of the expenditure result according to the Budget Plan, it is found that the expenditure on the fixed budget which is the expenditure for operating activities of the NBTC and the Office of NBTC was 3,020.88 million baht or accounted for 79.33 percent of the allocated budget, and the expenditure on the budget for investment (projects) for 1,520.95 million baht or accounted for 87.67 percent of the allocated budget, contribution to the Fund for 50.00 million baht which was completely disbursed as planned, and the expenditure on the budget reserved for emergencies and contingencies for 10.00 million baht or accounted for 33.33 percent of the allocated budget. Detailed are shown in Table 87 and Chart 57 and the comparison of the expenditure budget result between 2013 and 2014 are shown in Table 88 and Chart 58.



Chart 57: Comparison of Plan and Result of Expenditure Budget in 2014

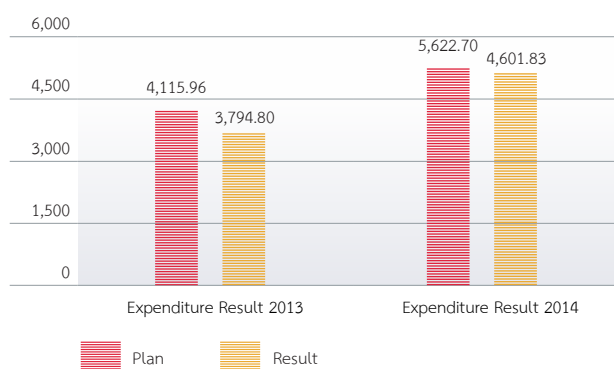


Source: Strategic and Budget Bureau

Table 88: Comparison of Expenditure Budget Results in 2013 and 2014

Details	Expenditure result in 2013	Expenditure result in 2014
Annual expenditure plan of the Office of NBTC	4,115.96	5,622.70
Annual expenditure budget results of the Office of NBTC	3,794.80	4,601.83
1. Fixed-budget	2,701.94	3,020.88
Fixed budget (expense for the NBTC and the Office of NBTC operation)		
2. Budget for Investment (projects)	989.11	1,520.95
3. Contribution to the Fund	50.00	50.00
4. Budget reserved for emergencies and contingencies	53.75	10.00

Chart 58: Comparison of Expenditure Budget Result (2013 - 2014)



Source: Strategic and Budget Bureau



## Financial Statements Report of the Office of NBTC in 2014

### The Office of National Broadcasting and Telecommunications Commission Financial Statement As of 31 December 2014

Unit: Baht

	Notes	2014	2013
<b><u>Assets</u></b>			
<b>Current Assets</b>			
Cash and cash equivalents	3	14,988,224,211.00	7,740,560,820.71
Short-term investments	4	18,758,085,945.41	6,705,320,527.73
Receivables from license fee	5	343,267,692.35	11,781,540.38
Accrued income	6	7,444,146,354.97	5,192,746,350.21
Prepaid expenses	7	7,077,639.17	7,091,784.46
Receivables from spectrum and radiocommunications equipment rental		31,629,509.86	31,900,085.86
Other current assets	8	104,045,069.62	90,797,562.80
<b>Total current assets</b>		<b>41,676,476,422.38</b>	<b>19,780,198,672.15</b>
<b>Non-current Assets</b>			
Long-term investments	9	201,966,417.35	195,042,411.74
Plant and equipment	2.6,10	1,158,630,540.04	1,001,666,761.29
Intangible fixed asset	2.7,11	297,600,768.36	59,687,300.79
<b>Total non-current assets</b>		<b>1,658,197,725.75</b>	<b>1,256,396,473.82</b>
<b>Total Assets</b>		<b>43,334,674,148.13</b>	<b>21,036,595,145.97</b>

Notes to financial statements are an integral part of these financial statements

The above financial statement is to be certified by the office of the Auditor General of Thailand



## The Office of National Broadcasting and Telecommunications Commission

### Financial Statement As of 31 December 2014

Unit: Baht

	Notes	2014	2013
<b>Liabilities and Equity</b>			
<b>Current Liabilities</b>			
Creditors and notes payable	12	1,178,598,215.67	346,335,479.55
Advance revenue	13	60,750,468.24	67,573,820.34
State revenue in transit to the Treasury	14	3,463,086,320.11	950,963,260.96
Guaranty for digital TV auction	-	-	2,271,000,000.00
Liabilities forecast of employees' benefit	15	392,051,108.45	322,356,994.94
Other current liabilities	16	844,183,775.17	183,619,112.27
<b>Total current liabilities</b>		<b>5,938,669,887.64</b>	<b>4,141,848,668.06</b>
<b>Non-current Liabilities</b>			
Deferred income	2.8, 17	10,610,066,370.16	93,816,351.76
Spectrum and radiocommunications equipment rental held in trust	2.5	31,629,509.86	31,900,085.86
Other non-current liabilities	18	74,326,468.01	43,519,451.76
<b>Total non-current liabilities</b>		<b>10,716,022,348.03</b>	<b>169,235,889.38</b>
<b>Total Liabilities</b>		<b>16,654,692,235.67</b>	<b>4,311,084,557.44</b>
<b>Equity</b>			
Capital	19	198,325,867.44	198,325,867.44
Excess of revenues over accumulated	19	26,481,656,045.02	16,527,184,721.09
<b>Total equity</b>		<b>26,679,981,912.46</b>	<b>16,725,510,588.53</b>
<b>Total Liabilities and Equity</b>		<b>43,334,674,148.13</b>	<b>21,036,595,145.97</b>

Notes to financial statements are an integral part of these financial statements

The above financial statement is to be certified by the office of the Auditor General of Thailand





**Office of the National Broadcasting and Telecommunications Commission**  
**Revenues and Expenses**  
**As of 31 December 2014**

Unit: baht

	Notes	2014	2013
<b>Operating Revenues</b>			
Telecommunications Services			
Remuneration for spectrum auction for IMT in frequency band of 2.1 GHz	20	10,406,250,000.00	-
Remuneration for radiocommunications spectrum usage		124,140,545.03	122,297,503.61
Radiocommunications license fee		123,469,200.00	135,834,825.00
Business license fee		4,629,605,228.54	1,962,637,171.52
Numbering fee		3,943,112,511.90	3,096,088,777.69
Other fees - Telecommunications		15,256,281.80	11,828,263.98
Total telecommunications revenues		19,241,833,767.27	5,328,686,541.80
Broadcasting Services			
Broadcasting business license fee		207,472,914.51	11,200.00
Revenues from broadcasting services trial operation		43,180,550.00	30,026,000.00
Remuneration for spectrum auction for television service provision		692,614,410.00	-
Television business license fee		-	154,937,141.68
License fee under Section 70		41,524,000.00	41,416,990.00
Remuneration for Digital TV auction		-	49,000,000.00
Other fee – broadcasting and television		110,843,948.91	3,164,885.00
Total revenue of broadcasting and televisions services		1,095,635,823.42	278,556,216.68
Research and Development Fund, Other Revenue			
Contribution to the Research and Development Fund – Licensees ( to USO Fund)	2.14, 21	7,624,327,615.56	5,669,054,212.48
Revenue from 1 Por Nor Radio Station		67,770,093.51	44,779,439.30
interest receivable		763,398,878.17	321,605,423.92
Others Revenue		54,022,639.07	15,814,848.17
Total revenue of Research and Development Fund and other revenue		8,509,519,226.31	6,051,253,923.87
Total revenue		28,846,988,817.00	11,658,496,682.35
<b>Operating Expense</b>			
State revenue to be delivered to the treasury - spectrum auction for IMT services in frequency band of 2.1 GHz	20	10,406,250,000.00	-
Human resources expense	22	973,608,611.19	1,009,965,945.49
Operating Expense	23	2,161,477,644.80	1,859,718,837.68
Public Utilities Expense	24	121,856,248.61	49,975,108.19
Depreciation and amortization	25	328,023,512.40	254,443,889.37
Contributions to Education, Research and Development	26	168,008,003.52	106,109,672.29
Expense of the spectrum auction in band of 1.8 GHz	27	12,004,068.00	19,500,000.00
Expense of the spectrum auction in band of 900 MHz		-	2,100,000.00
Expense for promoting and supporting the Fund's objectives	28	1,256,671,684.66	-
Contributions to Technology Development Fund for Education		10,000,000.00	10,000,000.00
Total expenses		15,437,899,773.18	3,311,813,453.02
Excess of revenues over net expense		13,409,089,043.82	8,346,683,229.33

Notes to Financial Statements are an integral part of this Financial Statement

The above financial statement has not yet been certified by the Office of the Auditor General of Thailand

**Office of the National Broadcasting and Telecommunications Commission**  
**Change of Cost Statement**  
**As of 31 December 2014**

Unit: baht

Notes	Revenue over accumulated expenses				Grand Total
	Cost	Revenue over accumulated expenses	Remit to be delivered for state revenue	Total	
Balance as of 31 December 2012	198,325,867.44	21,136,897,141.35	(12,017,119,130.44)	9,119,778,010.91	9,318,103,878.35
Revenue over net expense	-	8,346,683,229.33	-	8,346,683,229.33	8,346,683,229.33
Remit to be delivered for state revenue	-	-	(939,276,519.15)	(939,276,519.15)	(939,276,519.15)
Balance as of 31 December 2013	198,325,867.44	29,483,580,370.68	(12,956,395,649.59)	16,527,184,721.09	16,725,510,588.53
Revenue over net expense	-	13,409,089,043.82	-	13,409,089,043.82	13,409,089,043.82
Remit to be delivered for state revenue	-	30,000,000.00	(3,484,617,719.89)	(3,454,617,719.89)	(3,454,617,719.89)
Balance as of 31 December 2014	198,325,867.44	42,922,669,414.50	(16,441,013,369.48)	26,481,656,045.02	26,679,981,912.46

Notes to Financial Statements are an integral part of this Financial Statement





**Office of the National Broadcasting and Telecommunications Commission**  
**Cash Flow Statement for the Fiscal Year ended**  
**As of 31 December 2014**

Unit: baht

	2014	2013
<b>Cash flow from operating activities</b>		
Revenue over net expense	13,409,089,043.82	8,346,683,229.33
<b>Reconciled the revenue over net expense to net cash (expense) from operating activities</b>		
Depreciation and amortization	328,023,512.40	254,443,889.37
Deferred revenue from donation	(11,595,571.60)	(11,577,810.58)
<b>Profit from operating activities before change in assests and liabilities from operating activities</b>		
<b>Decrease (increase) of change of operating assets</b>		
Fee receivable	(331,486,151.97)	20,106,104.04
Accrued income	(2,251,400,004.76)	(2,079,621,304.36)
Prepaid expenses	14,145.29	(4,635,716.95)
Spectrum and radiocommunication equipment rental held in trust	270,576.00	783,413.77
Other current assets	(13,247,506.82)	(45,911,998.79)
<b>Decrease (increase) of change of operating liabilities</b>		
Creditors and note payables	832,262,736.12	36,761,880.68
Advance revenue	(6,823,352.10)	1,494,383.59
Guarantee of digitalTV auction	(2,271,000,000.00)	2,271,000,000.00
Liabilities forecast for employees' benefit	69,694,113.51	80,662,682.75
Other current liabilities	660,564,662.90	73,698,714.93
State revenue in transit to the Treasury	2,512,123,059.15	(1,597,567,830.46)
Deferred income	10,516,250,018.40	48,400,000.00
Spectrum and radiocommunications equipment rental held in trust	(270,576.00)	(783,413.77)
Other non-current liabilities	42,402,587.85	6,938,545.68
<b>Net Cash from Operating Activities</b>	<b>23,484,871,292.19</b>	<b>7,400,874,769.23</b>
<b>Net Cash for Investing Activities</b>		
Cash expense for short-term investment	(12,052,765,417.68)	(3,654,342,608.13)
Cash receivable from long-term investment	(6,924,005.61)	244,957,588.26
Cash expense for buildings and equipment	(400,055,507.41)	(389,952,581.39)
Loss from amortization of buildings and equipment	3.00	-
Cash expense for in tangible assets	(322,845,254.31)	(63,829,709.81)
<b>Net Cash from Investing Activities</b>	<b>(12,782,590,182.01)</b>	<b>(3,863,167,311.07)</b>
<b>Cash Flow from Monetary Acquiring Activities</b>		
Surplus to be remitted as state revenue	(3,454,617,719.89)	(939,276,519.15)
<b>Net cash expense for monetary acquiring activities</b>	<b>(3,454,617,719.89)</b>	<b>(939,276,519.15)</b>
<b>Increase (decrease) in net cash and cash equivalents</b>	<b>7,247,663,390.29</b>	<b>2,598,430,939.01</b>
<b>Cash and cash equivalents at the beginning of accounting period</b>	<b>7,740,560,820.71</b>	<b>5,142,129,881.70</b>
<b>Cash and cash equivalents at the ending of accounting period</b>	<b>14,988,224,211.00</b>	<b>7,740,560,820.71</b>

Notes to Financial Statements are an Integral Part of these Financial Statements.



# The Office of National Broadcasting and Telecommunications Commission

Notes to Financial Statements  
for the Fiscal Year as of 31 December 2014

(Unit: million baht, except being specified)







## The Office of the National Broadcasting and Telecommunications commission

### Notes to Financial Statements

for the Fiscal Year as of 31 December 2014

(Unit: million baht, except being specified)

#### 1. General information

The Office of National Broadcasting and Telecommunications Commission or “the Office of NBTC” is a juristic person having a status of a State agency, established by virtue of the Act on the Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010) (the Act on the Organization) to have duties and powers in regulating and developing the broadcasting, television and telecommunications services. The National Broadcasting and Telecommunications Commission, called in short “the NBTC”, has set up policies, criteria, procedures, conditions, fees, and other rules on matters related to licensing and regulation of spectrum usage, provision of broadcasting and telecommunication services, numbers usage, telecommunications network interconnection or access, prevention of monopoly or unfair competition, consumers protection as well as provision of broadcasting and telecommunications services to the public. A fund shall also be established under the Office of NBTC called the “Broadcasting and Telecommunications Research and Development Fund for the Public Interest”. The Headquarter of the Office of NBTC is located at 87 Soi 8 (Sai Lom), Phaholyothin Road, Sam Sen Nai, Phayathai, Bangkok 10400.

The Office of NBTC’s revenues is under Section 65 of the the Act on the Organization which shall be derived from the followings:

- (1) Spectrum license fees and business license fees under Section 42 paragraph 2 and Section 45 paragraph three.
- (2) Revenues or benefits accrued from the conduct of duties of the NBTC and the Office of the NBTC.
- (3) Revenues derived from the Office of the NBTC’s property.
- (4) Money and property donated to the Office of the NBTC in accordance with the regulation set forth by the NBTC for the work of the Office.
- (5) Subsidies from the government.

Revenues of the Office under (1) and (2) after deducting by expenditures for efficient conduct of the Office, necessary burden costs, and money allocated for the Fund under Section 52 and the Technology Development Fund for Education under the law on national education shall be remitted to the state treasury.



## 2. Accounting Policies

The major policies of accounting to be used in the preparation of financial statements of the Office are as follows:

### 2.1 Criteria for financial statement preparation

The financial statement of the Office of NBTC have been prepared in accordance with the general accepted accounting principles under the Accounting Act B.E.2543 (2000) including the accounting standards issued under the Accounting Professions Act B.E.2547 (2004). The financial statement will be recorded on the accrual basis and employed the historical cost basis to appraise the value of the elements included, except those specifically stated in other accounting policies. The Office of the NBTC's accounting period is started from 1 January to 31 December of each year.

### 2.2 Cash and Cash Equivalents

Cash and cash equivalents are stated at cost, comprising cash on hand, deposits held at call with banks and cash in bank accounts in classification of less than and 3-month fixed-term account.

### 2.3 Short-Term Investment

Short-term investment is the cash in bank accounts in classification of 3-month fixed-term account from the date of acquisition but no longer than 12 months

### 2.4 Fee Receivables/Accrued Income

Fee receivables/accrued income are shown by estimated net value receivable, doubtful receivables considering from doubtful debtors that are expected to be unable to pay.

### 2.5 Receivables of radiocommunications equipment rental fees

Receivables of Radiocommunication equipment rental fee is the receivables that the Office of NBTC collected on behalf of the Ministry of Finance. The entry will be recorded in double with the radiocommunications equipment rental receivables account. Radiocommunications equipment rental receivables account is the account setting up in pair with the account of radiocommunications equipment rental. When the amount is paid by the debtors, the recorded entry of radiocommunications equipment rental account will be transferred to the account of state revenues in transit to the Treasury - the radiocommunications equipment rental and violation fees

### 2.6 Net Building and Durable Articles

Building and durable articles is stated at cost after deducting accumulated depreciation and allowance for impairment losses.

Depreciation is calculated by using a straight line basis over the estimated useful lives as follows:



Type of Asset	Estimated Useful Lives (Year)
Buildings and its addition	5 - 20 (Depend on Construction Material)
Electrical and radio equipment	5
Computer equipment	3
Vehicles and transportation	8
Office supplies and others	2 - 15

### Guideline for the Recognition of Buildings, Establishment, Durable Articles and Equipment

1997 - 2002 - Durable articles and equipment to be recognized as assets must have historical cost from purchasing or acquisition at price per unit, set, or group not less than 30,000 baht

- Durable articles and equipment that purchased or acquired before the year 2007 do not beat the price but shall be registered in Asset Control

2003 - 2007 - Durable articles and equipment to be recognized as assets must have historical cost from purchasing or acquisition not less than 10,000 baht and must be classified in the standard durable articles account of the Office of NBTC.

2008 - Present - Durable articles and equipment to be recognized as assets must have historical cost from purchasing or acquisition not less than 10,000 baht and must be classified in the standard durable articles account of the Office of the NBTC.

#### 2.7 Net Intangible Asset

Net intangible assets will be recorded at cost after deducting accumulated amortization and allowance for impairment losses. The amortization is calculated by using the straight line method according to the estimated useful lives of the intangible assets. The criteria for the recognition of intangible assets in type of computer program having price of not less than 50,000 baht shall be recognized as intangible assets.

#### 2.8 Deferred income

Fixed assets receiving from donation will be recorded as assets together with deferred income, and will be recognized as revenue from donation together with deducting depreciation of the assets receiving from donation according to their useful lives.

#### 2.9 Surplus to be remitted as state revenue

Surplus to be remitted as state revenue, revenue or benefits accrued from the operation under powers and duties of the NBTC and the Office of NBTC



in any year which had been received in a year after deducting the operating expenses of the NBTC and the Office of NBTC and other necessary burdens or obligation expenses including the reserved budget for overlapped disbursement between the fiscal years and contributions to the Funds as prescribed by law, the rest must be remitted as state revenue. Also, the residual money from necessary obligations expenses in the previous years in which the operation could not be completed within two years must be remitted as the state revenue.

2.10 The revenue from spectrum auction for the provision of IMT service in band of 2.1 GHz after deducting the cost of the auction preparation including interests must be submitted as state revenue according to the Act on the Organization, Section 45 Paragraph 1.

2.11 License fees for the use of spectrum for the provision of digital television services, in category of national commercial services, shall be submitted to the Research and Development of Broadcasting and Telecommunications Fund for the Public Interest. However, the fee in part of minimum price will be used for supporting the public to access to the digital telecommunications services thoroughly according to the NBTC Notification on Criteria, Procedures and Conditions for the Spectrum Auction for the Provision of Digital Television Services, Category of National Commercial Services B.E.2556 (2013) and Section 53 (2) of the Act on the Organization B.E.2553 (2010).

However, for the license fee to use the spectrum for the provision of commercial services, it is prescribed that the revenue from the spectrum auction under Section 41, Paragraph 6, is considered a license fee to use the spectrum which must be paid when obtaining a license, therefore, after deducting the expenses the rest revenue must be submitted as state revenue according to the Announcement of the National Council for Peace and Order No.80/2014.

#### 2.12 Employee Benefit

The Office of the NBTC has provided its staff and employees with the basic welfare and social insurance, at least, to support the children's education, healthcare, the disaster victims, assistance in case of death, compensation, and other welfares such as welfare loan, housing welfare, sport and entertainment welfare, and other welfares which are to promote the quality of life, as well as other types of the support as appropriate and necessary, apart from being prescribed under the Office of NBTC Regulation regarding Benefit and Welfare B.E.2550 (2007) and No.2 B.E.2551 (2008).

The pension of the officers is the pension according to the Office of NBTC Regulation regarding the Officers Pension and Assistance after Retirement B.E.2555 (2012). The regular pension will be paid by calculating from the duration of being served the organization multiply by last salary, and extra pension will be paid in





20 times of the last salary by the time of being harm or sick or getting injured to disabled due to operating duties, and 30 times of the last salary when an officer died due to operating duties. The payment of the pension will be disburse from the Pension Fund established by the Office of NBTC in which the source of revenue is from the initial money and budget allocated from the Annual Expenditure Budget to be adequate for the burden of pension to be paid at the end of the accounting period, including the benefits of pension.

The provident fund money is the money that the Office of NBTC has contributed to the Provident Fund in amount of 10 percent of the officers' salary according to the Office of NBTC Regulations under the Provident Fund of the Office of NBTC which has been established under the Office of NBTC Regulation regarding the Provident Fund of the Officers of the Office of NBTC B.E.2549 (2006).

2.13 The revenue for supporting the study, research and development is recognized as the expense when the expense has been approved for those who are eligible. If there is a surplus which could be returned by the same year, it will be taken to deduct from the amount of supporting expenditure. If remit is done after the year of disbursement, the surplus will be recorded as the revenue from the revenue for supporting the study, research and development to be received back, and identified as other income which is not generated by the operation. The above-mentioned criteria shall include the expense of a similar detail.

#### 2.14 Revenue Recognition

The Office of NBTC has recognized revenue in each category as follows:

- Revenue from the remuneration for spectrum usage for radiocommunications has been recognized on an accrual basis.
- Revenue from license fee under the Radiocommunications Act has been recognized upon the receipt of forms and fees.
- Revenue from business license fee has been recognized on an accrual basis.
- Revenue from numbering fee has been recognized monthly on an accrual basis.
- Revenue from license fee for spectrum transfer has been recognized upon the receipt of forms and fees.
- Revenue from application fee has been recognized according to revenue category of the application upon the receipt of the application and fee.
- Revenue from the contributions to the Broadcasting and Telecommunications Development Fund for the Public Benefit (for the USO projects) as prescribed by the law has been recognized on an accrual basis.



- Revenue from 1 Por Nor Radio Broadcasting Station has been recognized monthly on an accrual basis.
- Revenue from other fees has been recognized upon the receipt of forms and fees.
- Revenue from interests receivable has been recognized on an accrual basis.
- Other revenues apart from the above-mentioned revenue have been recognized on an accrual basis.

2.15 The Expenditure of the Broadcasting and Telecommunications Development Fund for the Public Interest, such as the asset for the Fund Management, personnel expenses, meeting remuneration for the committees, expense of public relations activities, expense for organizing meetings, material cost for the Fund management, cost for public utilities, etc., shall be disbursed by the Office of NBTC according to the Fund's Regulation.

### 3. Cash and Cash Equivalents

	2014			2013
	The Office	The Fund	Total	Total
Cash	0.58	-	0.58	0.42
Petty cash	0.34	-	0.34	0.34
Receivable cheque	0.52	2.17	2.69	3.88
Bank deposits			-	
Current account	30.21	-	30.21	20.16
Saving account	3,320.66	4,046.40	7,367.06	5,500.04
Fixed deposit account for 3-month term	3,087.34	4,500.00	7,587.34	2,215.72
Total Cash and Cash Equivalents	6,439.65	8,548.57	14,988.22	7,740.56
<b>Cash and Cash Equivalents included</b>				
Cash from the revenue gained under Section 65 (1 - 2)			5,993.80	2,933.53
Cash and cash equivalents from the revenue gained under Section 65 (3 - 5)			70.66	2.78
Cash and cash equivalents of the Fund			8,548.58	2,344.57
Cash and cash equivalents from trust money, guarantee deposits, and others			375.18	2,459.68
			14,988.22	7,740.56

Cash and Cash Equivalents of the Office of NBTC as of 31 December 2014, at the amount 14,988.22 million baht, has included the deposits from the Research and Development Fund (Old) of 24.57 million baht (included the interests receivable) for the expense of the obligation of the old Fund.



#### 4. Short-term Investments

	2014			2013
	<u>The Office</u>	<u>The Fund</u>	<u>Total</u>	<u>Total</u>
3 - 12 month fixed-deposit account	58.09	18,700.00	18,758.09	6,705.32
Total Short-term Investments	58.09	18,700.00	18,758.09	6,705.32

	2014	2013
Short-term Investments included		
Short-term investment from the revenue gained under Section 65 (1 - 2)	0.02	0.02
Short-term investment from the revenue gained under Section 65 (3 - 5)	4.69	204.96
Short-term investment of the Research and Development Fund	18,700.00	6,500.00
Short-term investment from the trust money	53.38	0.34
Total short-term investments	18,758.09	6,705.32

#### 5. License Fees Receivable

	2014			2013
	<u>The Office</u>	<u>The Fund</u>	<u>Total</u>	<u>Total</u>
Receivable from remuneration of radio frequency usage	0.03	-	0.03	0.04
Receivable from numbering fee	342.16	-	342.16	10.50
Receivable from business license fee	0.50	-	0.50	0.70
Trading Receivable	29.89	-	29.89	29.89
Less doubtful accounts	(29.89)	-	(29.89)	(29.89)
Returned Check	0.58	-	0.58	0.54
Total of Debtors	343.27	-	343.27	11.78

The Debtors of numbering fee as of 31 December 2014 and 2013 are at the amount of 342.16 and 10.50 million baht respectively, not including fees of 4-digit telecommunications numbers at the amount of 540.20 million baht (excluding VAT and penalty), that Office has charged the TOT Public Company Limited according to the NTC Notification on Criteria for Special Telecommunications Numbers Allocation, Article 13 (4) and 16, the NTC Notification on Criteria for Temporary Telecommunications Numbers Allocation and Management, Article 9 and 14, and NTC Notification on Criteria for Telecommunications Numbers Allocation and Management B.E.2551 (2008), Article 93, as those numbers have been provided by the TOT Public Company Limited to state-enterprises and private sector before the NTC Notification on Criteria for Temporary Telecommunications Numbers Allocation and Management is effective, and the TOT has requested for the use of those numbers to the NTC according to the NTC Notification on Criteria for Temporary Telecommunications Numbers Allocation and Management, Article 14 and the NTC Resolution in the Meeting No.4/2008 on 31 January 2008 and No.8/2008 on 28 February 2008.

However, the TOT Public Company Limited has sued the Central Administrative Court to revoke the Administrative Order of the NTC No.tc.1200.3/5645 dated 12 July 2010 claimed for the fee for special number at above-mentioned amount (Undecide Case No.397/2011), which is now in the process of consideration of the Central Administrative Court.



## 6. Accrued Incomes

	2014			2013
	<u>The Office</u>	<u>The Fund</u>	<u>Total</u>	<u>Total</u>
Accrued income from business license fee	3,848.53	-	3,848.53	2,097.28
Contributions to the Fund - Accrued income from licensees	-	3,595.62	3,595.62	3,095.47
Total estimated accrued income	<u>3,848.53</u>	<u>3,595.62</u>	<u>7,444.15</u>	<u>5,192.75</u>

The accrued income from business license fees as of 31 December 2014 and 2013 at the amount of 3,848.53 and 2,097.28 million baht respectively, is the income that the Office of NBTC collected from the operators at the progressive rate of income and it must be paid by 150 days from the end of accounting period.

## 7. Prepaid Expenses

	2014			2013
	<u>The Office</u>	<u>The Fund</u>	<u>Total</u>	<u>Total</u>
Prepaid expense on land rental	6.52	-	6.52	6.44
Other prepaid expenses	0.56	-	0.56	0.65
Total Prepaid Expenses	<u>7.08</u>	<u>-</u>	<u>7.08</u>	<u>7.09</u>

## 8. Other Current Assets

	2014			2013
	<u>The Office</u>	<u>The Fund</u>	<u>Total</u>	<u>Total</u>
Suspended input tax	23.16	-	23.16	20.70
Advance loan	2.79	-	2.79	8.52
Accrued interests receivables	7.79	66.99	74.78	58.41
Advance deposit	-	-	-	0.75
Other current assets	3.46	-	3.32	2.42
Total Other Current Assets	<u>37.20</u>	<u>66.99</u>	<u>104.05</u>	<u>90.80</u>

Other current assets as of 31 December 2014 and 2013, at the amount of 3.32 and 2.42 million baht respectively, were revised among other current assets of the Office of NBTC and other current assets of the Research and Development Fund at the amount of 0.14 and 1.31 million baht respectively (please see Notes No.16).



## 9. Long-term Investment Fund

Fixed-deposit account for more than  
12-month term  
Total Short-term Investments

2014			2013
<u>The Office</u>	<u>The Fund</u>	<u>Total</u>	<u>Total</u>
201.97	-	201.97	195.04
201.97	-	201.97	195.04

Long-term investment fund as of 31 December 2014 and 2013 at the amount of 201.97 and 195.04 million baht is a commercial bank deposits with the obligation to hold deposits for housing loans of employees.

## 10. Buildings and Durable Articles

Details	2014						2013
	Building and construction improvement	Electrical and radio equipment	Computer equipment	Vehicles and transportation equipment	Office supplies and others	Inprocess	Total
<u>Historical cost</u>							
Bring forward at the Beginning of period	756.10	887.91	541.02	157.00	223.87	175.45	2,741.35
Increase from being transferred	-	-	-	-	-	-	0.57
Increase during the period	61.44	38.80	139.37	8.14	31.48	120.83	510.13
Decrease during the period	-	-	-	-	(0.16)	-	(120.17)
Balance at the end of period	817.54	926.71	680.39	165.14	255.19	296.28	2,741.35
<u>Accumulated depreciation</u>							
Bring forward at the Beginning of period	421.62	637.53	446.93	96.07	137.53	-	1,505.42
Increase from being transferred	-	-	-	-	-	-	0.57
Increase during the period	38.10	89.98	71.97	19.62	23.41	-	233.69
Decrease during the period	-	-	-	-	(0.15)	-	-
Balance at the end of period	459.72	727.51	518.90	115.69	160.79	-	1,739.68
<u>Book value</u>							
As of 31 December 2014	357.82	199.20	161.49	49.45	94.40	296.28	-
As of 31 December 2013	334.48	250.38	94.09	60.93	86.34	175.45	1,001.67





## 10. Buildings and Durable Articles (The Office of NBTC)

Details	2014							2013
	Building and construction improvement	Electrical and radio equipment	Computer equipment	Vehicles and transportation equipment	Office supplies and others	Inprocess	Total	Total
<u>Historical cost</u>								
Bring forward at the Beginning of period	755.08	887.91	540.38	157.00	222.72	175.45	2,738.54	2,348.01
Increase from being transferred	-	-	-	-	-	-	-	0.57
Increase during the period	61.44	38.80	139.37	8.14	31.48	120.83	400.06	510.13
Decrease during the period	-	-	-	-	(0.16)	-	(0.16)	(120.17)
Balance at the end of period	<u>816.52</u>	<u>926.71</u>	<u>679.75</u>	<u>165.14</u>	<u>254.04</u>	<u>296.28</u>	<u>3,138.44</u>	<u>2,738.54</u>
<u>Accumulated depreciation</u>								
Bring forward at the Beginning of period	420.72	637.53	446.29	96.07	136.83	-	1,737.44	1,503.60
Increase from being transferred	-	-	-	-	-	-	-	0.57
Increase during the period	37.99	89.98	71.97	19.62	23.26	-	242.82	233.27
Decrease during the period	-	-	-	-	(0.15)	-	(0.15)	-
Balance at the end of period	<u>458.71</u>	<u>727.51</u>	<u>518.26</u>	<u>115.69</u>	<u>159.94</u>	<u>-</u>	<u>1,980.11</u>	<u>1,737.44</u>
<u>Book value</u>								
As of 31 December 2014	<u>357.81</u>	<u>199.20</u>	<u>161.49</u>	<u>49.45</u>	<u>94.10</u>	<u>296.28</u>	<u>1,158.33</u>	-
As of 31 December 2013	<u>334.36</u>	<u>250.38</u>	<u>94.09</u>	<u>60.93</u>	<u>85.89</u>	<u>175.45</u>	<u>-</u>	<u>1,001.10</u>

## 10. Buildings and Durable Articles (The Fund)

Details	2014							2013
	Building and construction improvement	Electrical and radio equipment	Computer equipment	Vehicles and transportation equipment	Office supplies and others	Inprocess	Total	Total
<u>Historical cost</u>								
Bring forward at the Beginning of period	1.02	-	0.64	-	1.15	-	2.81	2.81
Increase during the period	-	-	-	-	-	-	-	-
Decrease during the period	-	-	-	-	-	-	-	-
Balance at the end of period	<u>1.02</u>	<u>-</u>	<u>0.64</u>	<u>-</u>	<u>1.15</u>	<u>-</u>	<u>2.81</u>	<u>2.81</u>
<u>Accumulated depreciation</u>								
Bring forward at the Beginning of period	0.90	-	0.64	-	0.70	-	2.24	1.82
Increase during the period	0.11	-	-	-	0.15	-	0.26	0.42
Decrease during the period	-	-	-	-	-	-	-	-
Balance at the end of period	<u>1.01</u>	<u>-</u>	<u>0.64</u>	<u>-</u>	<u>0.85</u>	<u>-</u>	<u>2.50</u>	<u>2.24</u>
<u>Book value</u>								
As of 31 December 2014	<u>0.01</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>0.30</u>	<u>-</u>	<u>0.31</u>	-
As of 31 December 2013	<u>0.12</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>0.45</u>	<u>-</u>	<u>-</u>	<u>0.57</u>



## 11. Intangible Asset

	Balance as of 31 Dec. 2013	During the period		Balance as of 31 Dec. 2014
		Increase	Decrease	
Computer software	94.74	322.84	-	417.58
<u>Less</u> Accumulated amortization	<u>(35.05)</u>	<u>(84.93)</u>	<u>-</u>	<u>(119.98)</u>
Total of Intangible Asset	<u>59.69</u>	<u>237.91</u>	<u>-</u>	<u>297.60</u>

## 12. Creditors and Notes Payable

	2014			2013
	The Office	The Fund	Total	Total
Creditors	522.57	623.11	1,145.68	329.42
Creditcard payable	0.22	-	0.22	0.24
Cheques not yet cashed	32.70	-	32.70	16.68
Total Creditors and Notes Payable	<u>555.49</u>	<u>623.11</u>	<u>1,178.60</u>	<u>346.34</u>

## 13. Advance Revenues

	2014			2013
	The Office	The Fund	Total	Total
Advance remuneration for radiocommunications spectrum usage	52.51	-	52.51	62.87
Advance numbering fee	0.89	-	0.89	0.29
License fee for establishing conformity assessment bodies	0.02	-	0.02	0.04
Others	7.33	-	7.33	4.37
Total Advance Revenues	<u>60.75</u>	<u>-</u>	<u>60.75</u>	<u>67.57</u>



## 14. State Revenue in Transit to the Treasury

	Bring forward as of 31 Dec 2013	Additional Deferred Transit	Being delivered	Balance as of 31 Dec 2014
Radiocommunications equipment rental and violation fee	0.53	0.27	0.53	0.27
Fines	3.60	8.15	3.60	8.15
Revenue from spectrum auction in frequency band of 2.1 GHz	-	10,406.25	10,406.25	-
Interests receivable from auction guarantee	7.56	0.05	7.56	0.05
Revenue from 1 Por Nor Radio Broadcasting Station	343.89	71.65	343.89	71.65
Surplus to be remitted as state revenue in the year 2013	595.38	-	595.38	-
Surplus to be remitted as state revenue in the year 2014	-	3,382.97	-	3,382.97
Total State Revenue in Transit to the Treasury	950.96	13,869.34	11,357.21	3,463.09

## 15. Liabilities Estimation for Employee Benefits

	Balance as of 31 Dec 2013	Business transaction during the period		Balance as of 31 Dec 2014
		Increase	Decrease	
Liabilities estimation for employee benefits	322.36	72.71	(3.02)	392.05
Total Liabilities estimation for employee benefit	322.36	72.71	(3.02)	392.05

## 16. Other Current Liabilities

	2014			2013
	The Office	The Fund	Total	Total
Accrued vouchers	0.03	-	0.03	0.04
Other accrued expenses	73.72	-	73.72	136.70
Obligations to the Research and Development Fund (old)	2.18	-	2.18	22.97
Withholding tax payable	6.66	0.71	7.37	5.09
Creditors - The Revenue Department	725.75	-	725.75	12.63
Other current liabilities	35.14	0.14	35.14	6.19
Total Other Current Liabilities	843.48	0.85	844.19	183.62

Other current assets as of 31 December 2014 and 2013 at the amount of 35.14 and 6.19 million baht have been updated transactions with other current liabilities of the Office of NBTC and other current liabilities of the Research and Development Fund at the amount of 0.14 and 1.31 million baht respectively (please see Notes in No.8).



## 17. Deferred Income

	2014			2013
	<u>The Office</u>	<u>The Fund</u>	<u>Total</u>	<u>Total</u>
Bring forward at the beginning of period	45.42	-	45.42	56.99
Increase Deferred Income during period	-	11,268.86	11,268.86	48.40
Less Recognized as revenue during period	(11.60)	(692.61)	(704.21)	(11.57)
Balance at the end of period	<u>33.82</u>	<u>10,576.25</u>	<u>10,610.07</u>	<u>93.82</u>

The deferred income as of 31 December 2014 has increased 11, 268.86 million baht is the payment of license auction fees to use the spectrum for the provision of digital television services in category of national commercial service according to the NBTC Notification on Criteria, Procedures and Condition for the Spectrum Auction for the Provision of Digital Television Service in Category of National Commercial Service B.E.2556 (2013), Article 10 the fee payment of license auction fees to use the spectrum. In the 1<sup>st</sup> period, the licensee must pay 50 percent of the minimum price, and 10 percent of the money in excess of the minimum price together with the bank guarantees from Financial Institution in category of Commercial Bank Business under the Financial Institution Act B.E.2551 (2008) in order to guarantee the payment of the license fees in the remaining periods. Also, the money received from license fee to use the spectrum must be remitted to the Research and Development Fund. However, the license fee to use the spectrum in terms of the minimum price will be used to support the public for the access to digital television service throughout the country.

On 9 July 2014, the National Council for Peace and Order had the Announcement No. 80/2014 on the Amendments to the Act on the Organization B.E.2553 (2010), Article 1 to abolish the provisions of the paragraph one of Section 42 of the Act on the Organization B.E.2553 (2010), and replace by the followings:

“Section 42 The NBTC shall have the powers to prescribe license fees under Section 41 by dividing into spectrum license fees and business license fees which shall be paid when the license has been granted. Payment shall be made yearly at an appropriate rate for the type of license in accordance with the Broadcasting Business Act, except for the spectrum license fees for the business operation. The sum of money received from auctions under Section 41 paragraph 6 shall be deemed as spectrum license fees which must be paid upon having been licensed and remitted as state revenue”.

Also, the Article 5 prescribing that if the money received from auctions under Section 41 paragraph 6 of the Act on the Organization B.E.2553 (2010) before this Announcement has come into effective has not yet remitted to the Broadcasting and Telecommunications Research and Development Fund for the Public Interest, it shall be remitted as state revenue after deducting costs within 45 days starting from the effective date of the Announcement.



## 18. Other Non-Current Liabilities

	2014			2013
	The Office	The Fund	Total	Total
Contract guarantee deposits	47.96	-	47.96	26.49
Performance guarantee deposit	17.48	5.85	23.33	13.63
Security deposit	1.73	-	1.73	2.63
Trust money for monument construction	0.36	-	0.36	0.34
Other trust money	0.95	-	0.95	0.43
<b>Total Other Non-Current Liabilities</b>	<b>68.48</b>	<b>5.85</b>	<b>74.33</b>	<b>43.52</b>

## 19. Equity and Changes in Equity

	2014			2013
	The Office	The Fund	Total	Total
Capital	198.32	-	198.32	198.32
Excess of revenues over accumulated expenses				
Excess of revenues over accumulated expenses at the beginning of the accounting period	4,585.07	11,942.12	16,527.19	9,086.80
Adjustment of the excess of revenues over accumulated expenses at the beginning of the accounting period	-	-	-	32.98
Adjusted excess of revenues over accumulated expenses at the beginning of the accounting period	4,585.07	11,942.12	16,527.19	9,119.78
Plus Net excess of revenues over expenses	5,645.77	7,763.32	13,409.09	8,346.68
Less Surplus to be remitted as state revenue	(3,454.62)	-	(3,454.62)	(939.27)
Excess of revenues over accumulated expenses at the end of the accounting period	6,776.22	19,705.44	26,481.66	16,527.19
<b>Total Equity and Changes in Equity</b>	<b>6,974.54</b>	<b>19,705.44</b>	<b>26,679.98</b>	<b>16,725.51</b>

## 20. Revenue from the IMT Spectrum Auction in Frequency Band of 2.1 GHz

Revenue from the IMT spectrum auction in frequency band of 2.1 GHz for the year ending as of 31 December 2014 at the amount of 10,406.25 million baht which was the payment of license fees to use the IMT spectrum in frequency band of 2.1 GHz for the provision of telecommunications services in the 2<sup>nd</sup> period for 25 percent of the highest bidding price and all revenue was remitted as state revenue on 24 December 2014 according to the NTC Notification on Criteria and Licensing Procedure for the Use of Spectrum for the Provision of Telecommunications Services.

In 2012, the Office of NBTC had conducted the auction for licenses to use the spectrum for telecommunications services, and as a result, the Office of NBTC received revenues from IMT spectrum auction in the frequency band of 2.1 GHz at the amount of 41,625.00 million baht (excluded VAT). The 3 companies who won the auction are as follows:





## 20. Revenue from the IMT Spectrum Auction in Frequency Band of 2.1 GHz (continued)

List of the Auction Winners	Set of Frequencies	Auctioned Price (million baht)
1. Advance Wireless Network Company Limited	7 - 9	14,625.00
2. DTAC Network Company Limited	1 - 3	13,500.00
3. Real Future Company Limited	4 - 6	13,500.00
<b>Total</b>		<b>41,625.00</b>

## 21. Revenues from the Contribution to the Fund - Licensees (for the payment in USO projects)

In the periods of the year 2014 and 2013, the Office of NBTC had received the revenues from the contribution to the Fund - licensees (for the payment in USO projects) for 7,624.33 million baht and 5,669.05 million baht respectively. Those revenues are collected for being used in the provision of basic telecommunications and social services under Section 50 of the Act on the Organization B.E.2553 (2010) which stipulated that the NBTC shall set forth a plan for universal basic telecommunications and social services. After the Office of NBTC has completed the formulation of the plan, and announced to the public on 29 May 2012 according to the NBTC Notification on the Plan for Universal Basic Telecommunications and Social Services (2012 - 2016) as well as issued the criteria and procedures for the revenue collection for being used in the provision of basic telecommunications and social services on the same date requiring that all telecommunications licensees shall have their duties to allocate revenue from the provision of telecommunications services to the Fund for the implementation of the plan.

## 22. Human Resources Expenses

	2014			2013
	The Office	The Fund	Total	Total
	Section 65(1-2)	Section 65(3-5) and others		
Employees' salaries	671.35	-	671.35	634.98
Extra remuneration for the employees	0.21	-	0.21	93.84
Remuneration for the NBTC	35.30	-	35.30	36.31
Remuneration for salary in practising period for the NBTC	-	-	-	27.42
Monthly remuneration	33.76	-	33.76	21.18
Fringe benefits	106.09	-	106.09	66.22
Provident Fund	123.88	-	123.88	44.45
Retirement pensions	3.02	-	3.02	85.57
<b>Total Human Resources Expenses</b>	<b>973.61</b>	<b>-</b>	<b>973.61</b>	<b>1,009.97</b>

The expense in the management of the Fund in 2014 in terms of human resources expenses at the amount of 6.58 million baht has been disbursed from the Office of NBTC.



## 23. Operating Expenses

	2014				2013
	The Office		The Fund	Total	Total
	Section 65(1-2)	Section 65(3-5) and others			
Overtime expense	6.54	-	-	6.54	4.68
Meeting compensation to the Committees	52.09	-	-	52.09	50.79
Other remuneration	2.75	-	-	2.75	1.21
Expenses for domestic travelling	42.30	0.03	-	42.33	32.45
Repairs cost	16.99	0.58	-	17.57	6.86
Rental cost	163.78	-	-	163.78	138.10
Maintenance cost	81.37	-	-	81.37	69.26
Payment for contracted services	342.05	0.40	-	342.45	186.82
Expenses paid for entertaining guests and organizing ceremonious events	20.36	-	-	20.36	16.61
Taxes and fees	9.37	-	-	9.37	2.59
Expenses paid for attending trainings and seminars	125.48	-	-	125.48	92.14
Expenses for trainings registration	29.57	-	-	29.57	41.71
Expense for public relations activities	290.02	-	-	290.02	291.12
Expenses for organizing meetings	101.33	0.55	-	101.88	130.08
Expenses for radiocommunication equipment calibration	1.82	-	-	1.82	1.18
Expenses for consultants	418.0	-	-	418.06	329.54
Donation and charity	127.21	0.50	-	127.71	103.82
Expenses for arranging internal meetings	9.20	-	-	9.20	5.67
State revenue in transit to the Treasury	-	-	-	-	-
Other expenses	12.38	-	-	12.38	22.56
Office supplies	152.72	-	-	152.72	82.17
Expenses for traveling abroad	153.88	-	-	153.88	250.26
Petty expenses	0.15	-	-	0.15	0.10
Total Operating expenses	2,159.42	2.06	-	2,161.48	1,859.72

The expenses in the management of the Fund in 2014 in terms of operating activities expenses at the amount of 16.22 million baht has been disbursed from the Office of NBTC.



## 24. Public Utilities Expenses

	2014				2013
	The Office		The Fund	Total	Total
	Section 65(1-2)	Section 65(3-5) and others			
Electricity	27.26	0.92	-	28.18	24.07
Water	1.25	-	-	1.25	1.24
Office telephone service	5.18	-	-	5.18	2.85
Mobile phone service	13.00	-	-	13.00	5.22
DSTV service	0.32	-	-	0.32	0.32
Internet service	24.80	-	-	24.80	14.42
Postal services	49.13	-	-	49.13	1.86
Total Public Utilities Expenses	120.94	0.92	-	121.86	49.98

The expenses in the management of the Fund in 2014 in terms of public utilities expenses at the amount of 0.03 million baht has been disbursed from the Office of NBTC.

## 25. Depreciation and Amortization

	2014				2013
	The Office		The Fund	Total	Total
	Section 65(1-2)	Section 65(3-5) and others			
Depreciation-Building and construction improvement	37.99	-	0.11	38.10	35.36
Depreciation-Electrical and radio equipment	89.96	0.02	-	89.98	87.85
Depreciation-Computer equipment	71.97	-	-	71.97	69.22
Depreciation-Vehicle and transportation	19.62	-	-	19.62	18.96
Depreciation-Office supplies and others	23.27	-	0.15	23.42	22.30
Total Depreciation	242.81	0.02	0.26	243.09	233.69
Amortization-Computer software	84.93	-	-	84.93	20.75
Total Amortization	84.93	-	-	84.93	20.75
Total Depreciation and Amortization	327.74	0.02	0.26	328.02	254.44

The expenses in the management of the Fund in 2014 in terms of depreciation and amortization expenses at the amount of 2.74 million baht have been disbursed from the Office of NBTC.



## 26. Financial support for education, research and development in broadcasting, television and telecommunications services

	2014			2013
	The Office	The Fund	Total	Total
	Section 65(1-2)	Section 65(3-5) and others		
Financial support for education, research and development	120.17	-	120.17	90.40
Expense for the provision of universal basic telecommunications services	13.69	-	13.69	2.00
Contributions to the Fund	40.00	-	-	-
Expense for education financial support	34.15	-	34.15	13.71
Financial support for education, research and development	208.01	-	168.01	106.11

The financial support for education, research and development in broadcasting, television and telecommunications services of the Office of NBTC under Section 65 (1) – (2) at the amount of 208.01 million baht has included the transaction with the contributions to the Fund for 40 million baht.

## 27. Expenses for the preparation of IMT spectrum auction in frequency band of 1800 MHz

	2014			2013
	The Office	The Fund	Total	Total
	Section 65(1-2)	Section 65(3-5) and others		
Expenses for the preparation of IMT spectrum auction in frequency band of 1800 MHz	-	12.00	12.00	19.50
State revenue to be remitted to the Treasury-IMT spectrum auction in frequency band of 1800 MHz	-	-	-	-
Total expense for spectrum auction	-	12.00	12.00	19.50



## 28. Expenses for promoting and supporting the Fund's objectives

	2014				2013
	The Office		The Fund	Total	Total
	Section 65(1-2)	Section 65(3-5) and others			
Expense for the provision of universal service	-	-	1,242.15	1,242.15	-
Expense for research and development	-	-	6.24	6.24	-
Expense for human resource development	-	-	6.63	6.63	-
Expense for consumer protection	-	-	1.65	1.65	-
Total expenses for promoting and supporting the Fund's objectives	-	-	1,256.67	1,256.67	-

## 29. Other Appropriate Obligations Expenses

	2014	2013
	The Office	The Office
	Section 65(1-2)	Section 65(1-2)
Reserved fund for overlapped disbursement in 2013 and 2012 (duration extension)	164.89	337.79
Reserved fund for overlapped disbursement in 2014 and 2013	942.38	1,275.39
Creditors and notes payables (excluded the reserved fund in 2014 and 2013)	1,178.60	314.24
Other current liabilities (excluded from the reserved fund in 2014 and 2013)	904.93	2,451.59
Less the obligation expenses which have been reserved in various accounts		
(Trust money, contract guarantee deposits, and security deposits of loss in surplus of trusted money payables)	(17.93)	(2,364.28)
Total Appropriate Obligations Expenses	3,172.87	2,014.73





### 30. Contingent Liability

According to the provision of the Act on the Organization B.E.2553 (2010) Section 27(12) and Section 50 stipulating that the NBTC shall set forth a plan for universal basic telecommunications and social services, on 16 May 2012 the NBTC had its Resolution in the NBTC Meeting No.7/2012 approved the Plan for Universal Basic Telecommunications and Social Services (2012 - 2016) and, therefore issued the NBTC Notification on the Plan for Universal Basic Telecommunications and Social Services (2012 - 2016) on 29 May 2012 which has set up the timeframe for the implementation in the period of 2012-2016 with the operating budget of 20,468.30 million baht. Details are shown as follows:

Unit: million baht

2012 - 2013 Organizing USO auction in 2 pilot provinces	500.00
Having conducted nationwide survey	100.00
2013 - 2016 Organizing USO auction throughout the country	18,395.50
2012 - 2016 Provision of universal basic telecommunications services and social services	1,472.30
<b>Total</b>	<b>20,468.30</b>

Moreover, on the same day, the NBTC has issued the criteria and procedures for collecting revenue from the licensees as stipulated by the Telecommunications Business Act that all licensees have the duties to allocate the revenue from the provision of telecommunications service to the Fund.

The Fund Management Committee had its resolution in the Meeting No.5/2013 on 18 April 2013 having assigned the Sub-committee for scrutinization the projects to consider and propose recommendation on the Fund allocation regarding the (draft) USO Action Plan (2012 - 2016) before presenting to the Fund Management Committee Meeting for its approval. To support the consideration of the Sub-committee, the Universal Services Bureau had clarified the draft USO Action Plan in details to Sub-committee in the Meeting No.9/2013 on 27 May 2013 and proposed the improvement of the (draft) USO Action Plan in 2013 as follows:

1. Improving budget framework of each project to be in line with the remaining period of the year 2013 by decreasing from 2,461.26 million baht to 2,029.60 million baht
2. Categorizing the projects into 3 groups as follows:

Unit: million baht

Group 1 Projects that are urgently needed, totally 2 projects and 1 workplan	372.39
Group 2 Projects that continued to the original plan, totally 2 projects	116.37
Group 3 New projects, totally 7 projects	1,440.84
<b>Total</b>	<b>1,929.60</b>
Reserved budget	100.00
<b>Grand Total</b>	<b>2,029.60</b>



### 30. Contingent Liability (continued)

The Sub-committee had its resolution in the Meeting No.9/2013 to assign the Universal Services Bureau to improve 5 projects that are urgently needed to be in accordance with the period of the year 2013 and propose to the NTC for approval before further proceeding. For the new projects which were unable to implement in the year 2013, the Universal Services Bureau was assigned to revise the plan in details by coordinating with the Research and Development Bureau and proposing for budget allocation in 2014. Later on, the NTC, in its Meeting No.21/2013 on 4 June 2013, had acknowledged the draft USO Action Plan for the period of 2012 - 2013 that had been revised and proposed by the Universal Service Bureau to be in line with the annual budget of the Fund and recommendations of the Sub-committee for scrutinization the projects. The NTC Meeting also assigned the Office of NBTC to include the project to study and analyse the approaches for the provision of emergency telephone number services in the Action Plan and improve the budget including the preparation on the project implementation that has been adjusted to be implemented in fiscal year 2014 to ensure the continuity in the implementation of the project. On 11 June 2013, the Fund Management Committee had its Resolution in the Meeting No. 8/2013 approved the project and the Fund allocation to support the projects under the USO Action Plan on telecommunications for the year 2013 consisting of 5 projects and 1 workplan in the total amount of 1028.91 million baht. The NBTC has its Resolution in the NBTC Meeting No.6/2013 on 19 June 2013 approved the consideration of the budget under the expenditure framework in 2013 for only 1,028.91 million baht by allocating money at the amount of 495.76 million baht from the Fund in the fiscal year 2013 and the rest of 533.15 million baht will be committed to the budget in 2014 - 2016.

On 16 June 2014, the Office of NBTC had submitted the project for the provision of universal basic telecommunications services and social services which worth 20,468.30 million baht under the 4-year operation framework to the National Council for Peace and Order for approval and the National Council for Peace and Order had replied that the NBTC should postpone the implementation of the project for temporarily until the project details has been verified and the clear Expenditure Budget have been prepared as rules and legal provision for the utmost benefit of the state.

On 9 July 2014, the National Council for Peace and Order (NCPO) had issued the NCPO Announcement No.80/2014 regarding the Amendments to the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2553 (2010), Article 4 which is to abolish the Fund Management Committee in Section 54 of the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services, and replace by the followings:

“Section 54 There shall be a Fund Managment Committee consisting of

(1) Chairman of the NBTC as the chairperson

(2) Permanent Secretary of the Office of the Prime Minister, Permanent Secretary of Ministry of Defense, Director of Budget Bureau, Secretary-General of the National Economic and Social Development Board, Director-General of Comptroller’s Department, and Director of the National Electronic and Computer Center, as members by position

(3) Two experts selected by the the members under (1) and (2)

The Secretary-General of the NBTC shall be a member and secretary and appoint competent official of the Office of NBTC assistant secretary.

Members under paragraph 1 (3) shall not be of any prohibitions under Section 7B (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) and (11). The members shall hold office for a term of 3 years and may be reappointed but may not serve for more than 2 consecutive terms.

The provision of Section 23 shall apply *mutatis mutandis* to the meeting of the Fund Management Committee.”



### 31. Major Events, Disputes and Lawsuits

1. The Office of NBTC was the plaintiff for the offence of breach of contract for the radio station rental in the 98.5 MHz frequency, and demanded a payment for damages for 18,118,000 baht according to the Undecided Case No.4800/2010 and the Decided Case No.4067/2011. The Court of Appeal had sentenced the defendant to pay at the amount of 16,619,819 baht, and the cases are in the process of consideration by the Supreme Court.

2. The Office of NBTC was the plaintiff for the offence of breach of contract for 1 Por Nor radio station rental, and demanded a payment for damages for 11,773,134.56 baht according to the Undecided Case No.6024/2009 and the Decided Case No.1975/2011. The Court of Appeal had sentenced the defendant to pay at the amount of 5,007,134.56 baht, and the cases are in the process of consideration of the Supreme Court.


3. The Office of NBTC was the defendant for the offence in relations to unlawful conduct by a state agency or state officials (in the case of setting the daily administrative fine at 80,000 baht due to the inability to collect data and details of the pre-paid mobile phone subscribers thoroughly according to Article 38 and 96 of the NTC Notification on the Criteria for Telecommunications Allocation and Management) according to the Cases No.1033/2010, No.3117/2012, No.252/2013, and No.818/2013, which are still under the court's deliberation.

4. The Office of NBTC was the defendant for the offence in relations to unlawful conduct by a state agency or state officials (in the case of setting the daily administrative fine at 166,666.67 baht due to the violation or failure to comply with Article 8 of the NTC Notification on Criteria on the Provision of Mobile Number Portability Service) according to the Cases No.777/2011, 778/2011, 792/2011 which are still under the consideration of the Administrative Court.

### 32. Situations after the reporting timeframe


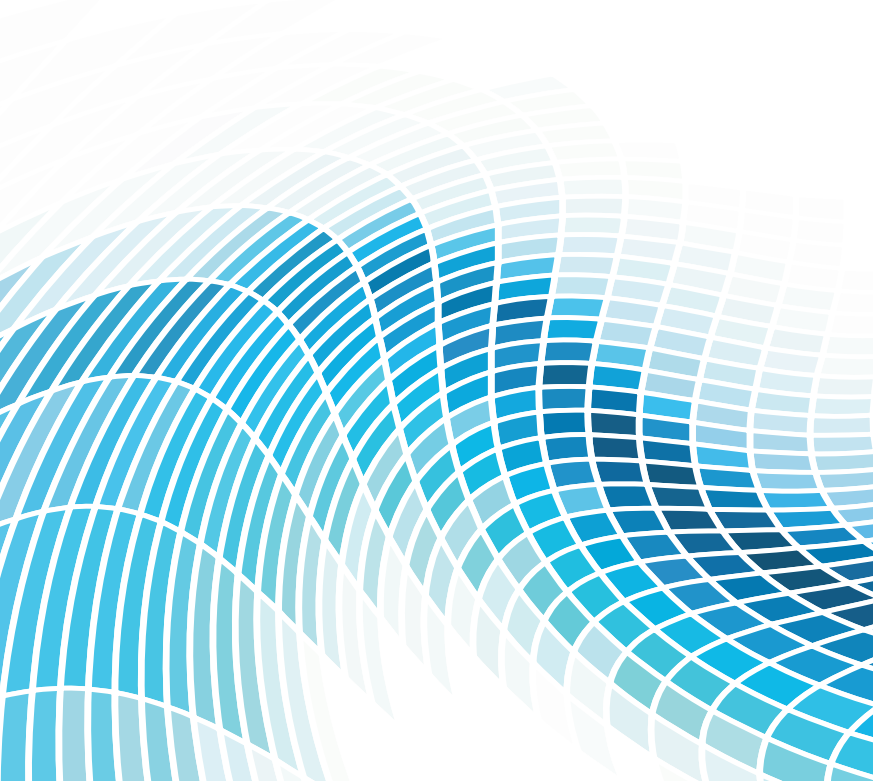
The Cabinet Meeting on 16 December 2014 and 6 January 2015 has its resolution to approve in principle the development of digital economy and approve the draft legislation to support the development of the digital economy for 10 Acts as follows:

1. The Draft Act on Electronics Transactions (No. ...) B.E. ....
2. The Draft Act on Computer - Related Crime Act (No. ...) B.E. ....
3. The Draft Act on Cybersecurity B.E. ....
4. The Draft Act on Personal Data Protection B.E. ....
5. The Draft Act on Digital Economy Promotion B.E. ....
6. The Draft Act on Digital Economy and Social Development Fund B.E. ....
7. The Draft Royal Decree on Electronic Transactions Development Agency (Public Organization) (No. ...) B.E. ....
8. The Draft Act on National Digital Economy and Society Committee B.E. ....
9. The Draft Act on Organization of Ministries, Sub-Ministries and Departments (No. ...) B.E. ....
10. The Draft Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services (No. ... ) B.E. ....



Details of financial statements are presented  
as a separate section of

The Office of National Broadcasting and  
Telecommunications Commission  
and  
The Broadcasting and Telecommunications  
Research and Development Fund for the Public Interest





**The Office of National Broadcasting and Telecommunications Commission**  
**Financial Statement**  
**As of 31 December 2014**

Unit: baht

<u>Assets</u>	<u>Notes</u>	<u>The Office</u>	<u>The Fund</u>	<u>Total</u>
<b>Current Assets</b>				
Cash and cash equivalents	3	6,439,647,564.65	8,548,576,646.35	14,988,224,211.00
Short-term investments	4	58,085,945.41	18,700,000,000.00	18,758,085,945.41
Receivable from license fee	5	343,267,692.35	-	343,267,692.35
Accrued income	6	3,848,523,354.97	3,595,623,000.00	7,444,146,354.97
Prepaid expenses	7	7,077,639.17	-	7,077,639.17
Receivable from radiocommunications rental and spectrum fee		31,629,509.86	-	31,629,509.86
Other current assets	8	37,199,397.83	66,987,941.02	104,045,069.62
Total current assets		10,765,431,104.24	30,911,187,587.37	41,676,476,422.38
<b>Non-current Assets</b>				
Long-term investments	9	201,966,417.35	-	201,966,417.35
Building and durable articles	2.6 , 10	1,158,320,637.96	309,902.08	1,158,630,540.04
Intangible asset	2.7 , 11	297,600,768.36	-	297,600,768.36
Total non-current assets		1,657,887,823.67	309,902.08	1,658,197,725.75
Total Assets		12,423,318,927.91	30,911,497,489.45	43,334,674,148.13

(The above statement of financial position has excluded other current assets and other current liabilities among themselves at the amount of 142,269.23 baht)

The above financial statement is to be certified by the Office of the Auditor General of Thailand





**The Office of National Broadcasting and Telecommunications Commission**  
**Financial Statement**  
**As of 31 December 2014**

Unit: baht

<u>Liabilities and Equity</u>	<u>Notes</u>	<u>The Office</u>	<u>The Fund</u>	<u>Total</u>
Current Liabilities				
Creditors and notes payable	12	555,492,484.51	623,105,731.16	1,178,598,215.67
Advance revenue	13	60,750,468.24	-	60,750,468.24
State revenue in transit to the Treasury	14	3,463,086,320.11	-	3,463,086,320.11
Liabilities estimation of employees' benefit	15	392,051,108.45	-	392,051,108.45
Other current liabilities	16	843,473,885.47	852,158.93	844,183,775.17
Total current liabilities		5,314,854,266.78	623,957,890.09	5,938,669,887.64
Non-current Liabilities				
Deferred revenue	2.8 , 17	33,820,780.16	10,576,245,590.00	10,610,066,370.16
Radiocommunication equipment rental and spectrum fee held in trust	2.5	31,629,509.86	-	31,629,509.86
Other non-current liability	18	68,471,652.01	5,854,816.00	74,326,468.01
Total non-current liabilities		133,921,942.03	10,582,100,406.00	10,716,022,348.03
Total Liability		5,448,776,208.81	11,206,058,296.09	16,654,692,235.67
Equity				
Capital	19	198,325,867.44	-	198,325,867.44
Excess of revenues over accumulated expenses	19	6,776,216,851.66	19,705,439,193.36	26,481,656,045.02
Total equity		6,974,542,719.10	19,705,439,193.36	26,679,981,912.46
Total Liabilities and Equity		12,423,318,927.91	30,911,497,489.45	43,334,674,148.13

(The above statement of financial position has excluded other current assets and other current liabilities among themselves at the amount of 142,269.23 baht)

The above financial statement is to be certified by the Office of the Auditor General of Thailand



**The Office of National Broadcasting and Telecommunications Commission**  
**Revenue and Expense Budget**  
**for the year ending as of 31 December 2014**

Unit: baht

	Notes	The Office		The Fund	Total
		Section 65(1-2)	Section 65(3-5) and others		
Telecommunication Operating Revenue					
IMT spectrum auction in frequency band of 2.1 GHz	20	10,406,250,000.00	-	-	10,406,250,000.00
Remuneration for radiocommunications spectrum usage		124,140,545.03	-	-	124,140,545.03
Radiocommunications license fee		123,469,200.00	-	-	123,469,200.00
Business license fee		4,629,605,228.54	-	-	4,629,605,228.54
Numbering fee		3,943,112,511.90	-	-	3,943,112,511.90
Other fee -Telecommunications		15,256,281.80	-	-	15,256,281.80
Total Telecommunication Operating Revenue		19,241,833,767.27	-	-	19,241,833,767.27
Broadcasting and Television Operating Revenue					
Broadcasting license fee		207,472,914.51	-	-	207,472,914.51
Broadcasting fee for trial operation		43,180,550.00	-	-	43,180,550.00
Spectrum auction for the provision of television service		-	-	692,614,410.00	692,614,410.00
License fee under Section 70		41,524,000.00	-	-	41,524,000.00
Other Fee-Broadcasting and Television		110,843,948.91	-	-	110,843,948.91
Total Broadcasting and Television Operating Revenue		403,021,413.42	-	692,614,410.00	1,095,635,823.42
Research and Development Fund and Other Revenues					
Contribution to the Fund-Licensee (for USO projects)	2.14,21	-	-	7,624,327,615.56	7,624,327,615.56
Revenue from 1 Por Nor Radio Station		67,770,093.51	-	-	67,770,093.51
Interest received		102,844,894.57	-	660,553,983.60	763,398,878.17
Other revenues		51,264,253.45	-	42,758,385.62	54,022,639.07
Research and Development Fund and Other Revenues		221,879,241.53	-	8,327,639,984.78	8,509,519,226.31
Total Revenue		19,866,734,422.22	-	9,020,254,394.78	28,846,988,817.00
Operating Expense					
State revenue to be remitted to the Treasury-IMT spectrum auction in frequency band of 2.1 GHz	20	10,406,250,000.00	-	-	10,406,250,000.00
Human resource expense	22	973,608,611.19	-	-	973,608,611.19
Operating expense	23	2,159,413,976.51	2,063,668.29	-	2,161,477,644.80
Public utility expenses	24	120,944,696.74	911,551.87	-	121,856,248.61
Depreciation and amortization	25	327,747,697.77	17,260.25	258,554.38	328,023,512.40
Financial support on the education, research and development	26	208,008,003.52	-	-	168,008,003.52
Preparation for spectrum auction in frequency band of 1.8 GHz	27	-	12,004,068.00	-	12,004,068.00
Expense for promoting and supporting the Fund's objectives	28	-	-	1,256,671,684.66	1,256,671,684.66
Contribution to Technology Development Fund for Education		10,000,000.00	-	-	10,000,000.00
Total Expense		14,205,972,985.73	14,996,548.41	1,256,930,239.04	15,437,899,773.18
Net Revenues Over (Below) Operating Expenses		5,660,761,436.49	(14,996,548.41)	7,763,324,155.74	13,409,089,043.82

(The above statement of operating performance has excluded the revenue and expense of the contribution to the Telecommunications Development Fund among themselves at the amount of 40,000,000.00 baht)

The above financial statement is to be certified by the Office of the Auditor General of Thailand on 31 December 2014



## Internal Audit Report of the Office of National Broadcasting and Telecommunications Commission (the Office of NBTC) in the Fiscal Year 2014

According to the NBTC Order No.49/2012, dated 2 May 2012 on the Appointment of the Internal Audit Committee for 5 persons and the NBTC Order No.69.4/2013 on the Appointment of the Internal Audit Committee (Addition) for 5 persons, as follows:

- |                                 |           |
|---------------------------------|-----------|
| (1) General Kamol Saenissara    | Chairman  |
| (2) Mr. Wallop Nitatkanchananon | Committee |
| (3) Mr. Somyos Sriwanich        | Committee |
| (4) Mr. Atthawut Vikitsreth     | Committee |
| (5) Mrs. Leena Charoensri       | Committee |

The Internal Audit Committee has operated under its powers and duties under Section 3 of the NBTC Regulation regarding the Internal Audit B.E.2554 (2011) with its policy focusing on the operation based on the good governance principle, good internal auditing system, and independent operation under its powers and duties without intervention from the NBTC, the Office of NBTC and other departments.

In the operation under its powers and duties and responsibilities of the Internal Audit Committee in 2014, the Internal Audit Committee had held 15 meetings by inviting the executives, officials of related bureaus, and the auditor to attend the meetings as appropriate. The main operation can be summarized as follows:

1. Evaluating the adequacy and effectiveness of the Internal Control System of the Office of NBTC including the efficiency and effectiveness of the functional operation of each bureau of the Office of NBTC by considering the operation, the use of resource, asset maintenance, prevention or reduction of errors, damages, leakage, waste, or corruption, as well as proposing suggestions for the improvement of risk management, control and regulation constantly.

2. Verifying the operating system in all areas to ensure of the compliance to the laws, regulations, rules, orders of the NBTC, and the operation standard that can help the operation to achieve targets, objectives and be in line with the NBTC's policies.

3. Verifying the accuracy and trustworthy of the financial statement report of the Office of NBTC by verifying the accounting record and financial statement preparation as well as monitoring the operation of the officials in terms of accounting, finance and procurement, and receiving comments of the officers of the Office of the Auditor General of Thailand (auditor) in their observations to ensure that the financial statements is prepared in accordance with legal requirements and accounting standards under the generally accepted accounting principles, reliable and timely, including having disclosed the financial statements adequately.

4. Verifying and evaluating the operation of the Office of NBTC in areas of accounting, finance and procurement according to the prescribed policies and practices by considering the risks and risk factors encountered by the Office of NBTC or expected to be likely to occur, as well as proposing recommendations for the improvement on weaknesses and the development for the most efficient.



5. Analyzing and evaluating of the efficiency, cost savings, and worthiness of resources usage including the risk of projects by verifying the implementation and evaluation of the projects expenditure of the Office of NBTC to ensure that projects implementation have been done systematically with the consistency and link to the workplan and budget of the Office of NBTC, including the Expenditure Budget of the projects has been done efficiently and economically, and in line with the workplan.

6. Verifying the internal audit operation by considering mission, areas of operation, duties and responsibilities, independence of the auditor, manpower, and budget of the Internal Audit Bureau, as well as having approved the auditing plan for the year 2015 which was set up on the basis of the evaluation of internal control and framework that cover all important work systems of the Office of NBTC. This included the quality development of internal audit in terms of human resource and the performance to be in accordance with international standard constantly.

The Internal Audit Committee has performed its duties and responsibilities as assigned with their knowledge and capabilities, discretion, and having adequate independence without restrictions in obtaining information from the executives, officials and employees and those concerned as well as proposing comments and recommendation for the benefit of all stakeholders equally.

The performance of the Internal Audit Committee has been focused on the oversight and proposed observations and recommendations to the Management and the operating teams in a frank and fair manner. The auditing report has been prepared and submitted to the NBTC twice a year so that the Office of NBTC is able to improve and the Internal Audit Committee has followed-up the result of the improvement upon the recommendations for the efficient of the performance of the Office of NBTC.

To conclude, the Internal Audit Committee has its opinion that the operation of the Office of NBTC in the year 2014 was done with a good corporate governance, transparency, adequate risk management and internal controls. The Internal Audit Committee has not found any defects or significant irregularities. In addition, the preparation of financial reports has been complied with the generally accepted accounting standards and is appropriate, reliable, and having disclosed adequate information on financial reports.

Gen.

(Kamol Saenissara)

Chairman of Internal Audit Committee



# 7

Workplan, Projects and  
Budget Plan in 2015



ศูนย์ไกล่เกลี่ยข้อพิพาท  
Telecommunity







## Workplan, Projects and Budget Plan in 2015 of the Office of NBTC

The expenditure budget allocation for the year 2014 of the Office of NBTC focused on the implementation of the Strategic Plan of the Office of NBTC (2014 - 2016) has linked to the strategic implementation approach of the Spectrum Management Master Plan (2012), Broadcasting Master Plan No.1 (2012 - 2016) and Telecommunications Master Plan No.1 (2012 - 2016) which have been used as guidelines for prioritizing the missions of the Office of NBTC and tools for allocating annual budget for the efficiency and effectiveness of the operation of the Office of NBTC.

The expenditure budget in 2015 at the amount of 5,035,112 million baht consisted of the expense for the operation of the NBTC and the Office of NBTC (fixed budget) of 3,930.917 million baht (5 workplans), the expense for projects implementation under the strategies for 1,034.195 million baht (88 projects), the contribution to the Fund for 50.00 million baht, and the central budget in case of emergencies and necessities for 20.00 million baht. Details are shown in Table 89 and Chart 59.

Table 89: Expenditure Budget Plan in 2015

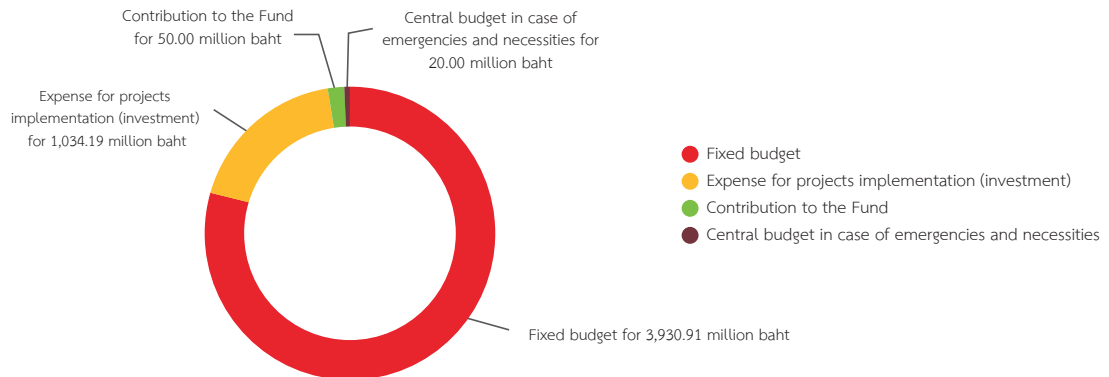
Unit: baht

No.	Expenditure Budget Plan in 2015	5,035,112,400.00
1.	Expense for the operation of the NBTC and the Office of NBTC (fixed budget)	3,930,916,600.00
2.	Expense for projects implementation (investment)	1,034.195,800.00
3.	Contribution to the Fund	50,000,000.00
4.	Central budget in case of emergencies and necessities	20,000,000.00

Source: Strategic and Budget Bureau



Chart 59: Expenditure Budget Plan in 2015 categorized by expenses



Source: Strategic and Budget Bureau

1. Expense for the operation of the NBTC and the Office of NBTC (fixed budget) of 3,930.917 million baht consisted of 5 workplans as follows:

- Workplan on the organization administration of 534.503 million baht for the expense of organization administration (in accordance with the Strategy 4: support and promotion of innovation and the establishment of the network of participation).
- Workplan on the management of strategies and corporate affairs of 2,139.333 million baht for the expense of the management of strategies and corporate affairs (in accordance with the Strategy 1: strengthening the management under the good corporate governance).
- Workplan on spectrum management and regional offices of 530.384 million baht for the expense of spectrum management and regional offices (in accordance with the Strategy 2: efficient spectrum management, consumer protection, promotion of equality, fairness in communications infrastructure, and the digital opportunities).
- Workplan on broadcasting management of 378.348 million baht for the expense of broadcasting management (in accordance with the Strategy 3: promotion of free and fair competition, communications resource management for supporting the country development towards digital communities).
- Workplan on telecommunications broadcasting management of 348.349 million baht for the expense of telecommunications management (in accordance with the Strategy 3: promotion of free and fair competition, communications resource management for supporting the country development towards digital communities).



2. The expense for projects implementation under the strategies for 1,034.195 million baht as follows:

**Strategy 1:** Strengthening the management to be in line with good corporate governance, having allocated the budget of 607.471 million baht for implementing 53 projects as follows:

Unit: baht

No.	The budget commitments over the year for 43 projects	529,228,900.00
1	Development of personnel efficiency for the Office of NBTC's mission	4,338,000.00
2	Development of personnel efficiency for the Office of NBTC's mission (2011)	8,218,000.00
3	Fellowship program to honour His Majesty the King	5,647,000.00
4	Building construction of the Office of NBTC	100,000,000.00
5	Lean and services management	5,000,000.00
6	Development of the database on costs relating to the procurement and cost estimate.	7,000,000.00
7	Durable articles management system with RFID	8,000,000.00
8	Renovation of the Building 2 of the Office of NBTC	51,900,000.00
9	Procurement of a SAN consolidation management system	9,750,000.00
10	Hiring a consultant for investigating the IT security according to international standard ISO/IEC 27001: 2005 for the year 2014	4,415,400.00
11	Penetration test program in information system	3,150,000.00
12	Development of information and communication network efficiency	7,500,000.00
13	Infrastructure improvement of the Office of NBTC	18,000,000.00



Unit: baht

No.	The budget commitments over the year for 43 projects	
14	Data backup system and increase of security and stability of the geographic information system	6,750,000.00
15	GIS system efficiency improvement in geographic information (Phase 2)	8,550,000.00
16	Efficiency improvement of external data collection devices	14,400,000.00
17	Efficiency improvement of the integrated communication system via IP Telephony, the Office of NBTC	12,000,000.00
18	Design and development of data warehouse system, the Office of NBTC	2,000,000.00
19	Outsourcing for developing the business intelligence report, phase 2, the Office of NBTC	10,000,000.00
20	Hiring a consultant for developing organization towards international standard in information security ISO/IEC 27001: 2013	3,000,000.00
21	Supply of online electronic data recording system	8,100,000.00
22	Installation of the behavior analysis system of computer network	10,260,000.00
23	Improvement of the portals, internet, and intranet system	4,505,000.00
24	Purchase of SAN storage system, the Office of NBTC	9,000,000.00
25	Software for management of file server system	2,450,000.00
26	Study and Design Blueprint for Development of NBTC Cyber Security Operating Center (CSOC)	6,300,000.00
27	Self-established of english classes	6,660,000.00
28	24-hour surveillance of network security system of the Office of NBTC	9,000,000.00
29	System design for managing the information technology services system of the Office of NBTC	4,500,000.00





Unit: baht

No.	The budget commitments over the year for 43 projects	
30	Development of the Fund management system, the Office of NBTC	9,000,000.00
31	File sharing management system	7,650,000.00
32	Website management system (content management system)	6,750,000.00
33	Creative Media to honour HRH Princess Maha Chakri Sirindhorn	9,385,500.00
34	Efficiency improvement of centralized data backup system in type of integrated data reserved device	13,500,000.00
35	Data management in long-term period	8,550,000.00
36	Supply of radio spectrum monitoring tools for fixed usage of the Office of NBTC in Sub-region	20,000,000.00
37	Development of Automatic Radio Usage Detection System Prototype	10,000,000.00
38	Supply of 14 vehicles for spectrum monitoring and direction search	20,000,000.00
39	Buildings construction of the official residence	2,000,000.00
40	Improvement of the collection system of ancient communications equipment of the Office of NBTC	12,000,000.00
41	Development of the system for monitoring quality of telecommunications network.	30,000,000.00
42	Preparation of the study report on the analysis of the usage demand for telecommunications regulation of the Office of NBTC	18,000,000.00
43	Data storage of mobile phone service base station in frequency band of 2.1 GHz	12,000,000.00



Unit: baht

No.	The budget commitments over the year for 10 projects	78,243,000.00
1	Key performance indicators (KPIs) and evaluation of the Office of NBTC's implementation of the KPIs in 2016	750,000.00
2	Development of quality management system towards the international standard ISO 9001	1,600,000.00
3	Development of personnel efficiency for the mission of the Office of NBTC in 2014	4,800,000.00
4	Domestic scholarship program in 2015	1,165,000.00
5	Scholarship program for the high potentials	13,432,000.00
6	Development of personnel efficiency for the mission of the Office of NBTC in 2015	17,896,000.00
7	Construction of the Office of NBTC in Sub-region	9,600,000.00
8	Efficiency improvement and enhancement of the conference system, phase 3	3,000,000.00
9	Improvement of efficiency and network security maintenance of network systems at a high level	6,000,000.00
10	Online information verification and analysis	20,000,000.00



**Strategy 2:** Management of spectrum allocation efficiently, consumer protection, creation of equality in communication infrastructure access and digital opportunity. Having allocated budget at the amount of 119.750 million baht for implementing 9 projects as follows:

Unit: baht

No.	The budget commitments over the year for 6 projects	82,250,000.00
1	Enhancement of capabilities in monitoring the use of radio frequencies	50,000,000.00
2	Development of IP Address database for being the center for complaints receipt on inappropriate media publishment	4,000,000.00
3	Hiring a consultant to study the regulation of remuneration rate for telecommunication network interconnection of telephone services in the age of 4G (LTE) and NGN	5,000,000.00
4	Provision of knowledge on the effects of electromagnetic radiation of mobile telephone base station of systems on the safety in human health in 5 regions	8,000,000.00
5	The study of demands on telecommunications numbers to support the transformation of telecommunications industry	3,000,000.00
6	Data survey, storage and review of the base stations of mobile phone services in frequency band of 2.1 GHz for the regulation under the Radiocommunications Act	12,250,000.00
No.	New Projects for 3 projects	37,500,000.00
1	The establishment of the monitoring center for illegal content on radio and television of the Office of NBTC	10,000,000.00
2	Supply of 6 sets of fixed-radio frequency usage monitoring stations	22,500,000.00
3	Mobile phone users information management system for the rights to use mobile phone numbers	5,000,000.00



**Strategy 3:** Promotion of free and fair competition, management of communication resource for supporting Thailand towards digital community. Having allocated budget at the amount of 52.500 million baht for implementing 10 projects as follows:

Unit: baht

No.	The budget commitments over the year for 8 projects	44,000,000.00
1	Hiring a consultant for analyzing policies and setting guidelines for the implementation of Digital Community: Thailand 2020	5,000,000.00
2	Development of policies and criteria for the telecommunications regulation under new environment and technology convergence	2,500,000.00
3	Organization of the poles and communication lines in 2014	3,000,000.00
4	The study on the key performance indicators of the efficiency of telecommunication operators	8,000,000.00
5	The study on the assessment of the economic impact of the provision of broadband services via the mobile phone network (Mobile Broadband)	3,000,000.00
6	The strengthening of international cooperation in the Asia- Pacific region and the USO management	6,000,000.00
7	Hiring a consultant for studying the costs of regulation and setting criteria for determining fees to be in line with telecommunications regulation	9,000,000.00
8	Development of the telecommunications licensing database system	7,500,000.00
No.	New Projects for 2 projects	8,500,000.00
1	Enhancement of knowledge and understanding of the laws and criteria for the regulation in broadcasting and television services for operators, public agencies, and the general public	3,500,000.00
2	Hiring a consultant for studying the regulation of the use of infrastructure for internet services	5,000,000.00



**Strategy 4:** Support and promotion of innovation and establishment of the network of participation. Having allocated budget at the amount of 254.474 million baht for implementing 16 projects as follows:

Unit: baht

No.	The budget commitments over the year for 13 project	220,773,900.00
1	Supply of a network detection and intrusion prevention systems (IPS) number one system	951,900.00
2	Establishment of 26 sets of the remoted control system for radio frequency monitoring stations	100,500,000.00
3	Establishment of the SAR Testing laboratory	20,709,300.00
4	Supply of QoS Measuring Instrument and Analyzer of 3G to 4G for measuring and analyzing the performance of telecommunication networks	3,950,000.00
5	Supply of tools for monitoring radio frequency used for the provision of mobile phone services	22,500,000.00
6	Supply of tools for IP network service provider measuring and analysis	20,312,700.00
7	Supply of QoS data collection center for the Office of NBTC	6,000,000.00
8	Efficiency enhancement of ASMS system	5,850,000.00
9	The study on guidelines for the application of telecommunications technology for cultural promotion	3,000,000.00
10	The ongoing study on the efficiency and standards of quality of service of 3G to 4G mobile phone system (In-Building) (Phase 2)	12,000,000.00
11	Media production under the USO Action Plan (2014 - 2015) in telecommunication network expansion and social services	8,000,000.00
12	Publishment under USO Action Plan (2014 - 2015) in telecommunication network expansion and social services through media	12,000,000.00
13	Establishment and Strengthening NBTC USO NET Volunteers Network	5,000,000.00





Unit: baht

No.	New Projects for 3 project	33,700,000.00
1	A collaborative project on news production on Royal Affairs and live broadcasting of the royal ceremony and the state ceremony for the provision of broadcasting and television services	15,000,000.00
2	The video documentary and multimedia to honour His Majesty the King on the occasion of the 90 <sup>th</sup> birthday anniversary celebration	15,000,000.00
3	Promotion on programs production for local producers in broadcasting and television services, phase 2	3,700,000.00

3. Money allocated to the Fund at the amount of 50 million baht (in accordance with the Strategy 3: Promotion of free and fair competition, management of communication resource for supporting Thailand towards digital community).

4. The central budget in case of emergencies and necessity at the amount of 20 million baht (in accordance with the Strategy 1: Strengthening the management to be in line with good corporate governance).

# 8

Obstacles and Problems in  
Broadcasting and Telecommunications  
Services which are important  
to the Public







## Obstacles and Problems in Broadcasting and Telecommunications Services

### 1. Construction of underground conduit and infrastructure of the public agencies of telecommunication operators.

#### 1) Construction of underground conduit in Bangkok area

The case that Metropolitan Electricity Authority (MEA) has set up plan to replace the air power lines system by the underground power lines which aimed to prevent and reduce the impact of the event arising from power outages in several areas including electrical cables that could pose a danger to people living in those areas, has resulted in the change of operation under the plan which the electric poles need to be dismantled to prevent the electric poles broken by natural disasters. These changes are good approaches which help make the city to become a beautiful and wireless city and in accordance with the policy of the city or Bangkok to have the streets in Bangkok organized, with no power lines or communication cables on the electrical poles. However, such policies have put a dramatic impact on telecommunications operators of the demolition the communications lines of the electrical poles in 12 areas of Bangkok such as Phaholyothin Road, Phayathai Road, Ratchathewi Road, Silom Road, Sukhumvit Road, Ratchadaphisek Road, and so on, decline of laying lines on the electrical poles of the MEA. It is therefore necessary to lay the communication lines underground.

In the past, the Office of NBTC has coordinated with Bangkok on the request for authorization to build the underground conduits continuously by sending a letter to the Governor of Bangkok in November 2013 requesting for the authorization for telecommunications operator in the private sector to build the underground conduits in the route between Victory Monument and Lat Phrao Intersection. Later on, in January 2014, the Public Works Department of Bangkok had sent a letter to the Office of NBTC informing that the Bangkok is unable to consider the request of authorization for telecommunications operator in the private sector to build the underground conduits in Bangkok areas but the public agencies or state-enterprises who supervise public utilities only. After that the Office of NBTC has sent another letter to the Bangkok requesting for consulting and re-considering the Bangkok's rules, regulations and announcements. At present, the Office of NBTC is in the process of coordination to resolve the problems so that the telecommunication operators are able to build the underground conduits.



To resolve such problems, the Office of NBTC had proposed to the NTC Meeting for consideration and the NTC Meeting has its resolution to assign TOT Public Company Limited and CAT Telecom Public Company Limited to build the underground conduits for the rental of other telecommunications operators. The NTC also had a letter to the Chief of Department of Administration and Coordination of Center for Integration Security Problem Resolution of the National Council for Peace and Order in order to discuss and acknowledge the problems in the operation of telecommunication networks expansion to support the Strategy 8 regarding the strategy for the improvement of telecommunications systems and it is now awaiting for setting date and time for having held the meeting. The Office of NBTC has also proposed solutions for resolving problems such as proposing Bangkok to build the underground conduits in Bangkok areas; however, if Bangkok is unable to operate the construction, it should assign TOT Public Company Limited and CAT Telecom Public Company Limited to jointly operate the construction and have the telecommunications operators in private sector rented the underground communication conduits. Finally, if TOT Public Company Limited and CAT Telecom Public Company Limited are able to operate the construction, the Office of NBTC also proposed that the telecommunications operators in private sector jointly operate the construction of laying the underground communications pipeline system by themselves.

## 2) Building pipelines and infrastructure of public agencies

The case of Department of Rural Roads (DRR), one of several organizations that telecommunications operators have requested for laying communications cable over the bridge across the Chao Phraya river in order to link signals from one side of the river to another side. According to the licensing criteria of the DRR, only the public agencies will be authorized to build conduits in the bridge beams. The Office of NBTC, however, has coordinated with the DRR for a long time for their revision of the relevant regulations so that the telecommunications operators in private sector will be able to build the conduits in the bridge beams but the DRR insists that the Office of NBTC should be the one who apply for the authorization of building the conduits for telecommunication operators in order to avoid problems which may be arising from sabotage, damage of the bridges, and standards for conduits or pipeline construction.

The Office of NBTC had proposed the issue to the Telecommunications Commission (TC) Meeting for consideration and the TC had its resolution to assign TOT Public Company Limited and CAT Telecom Public Company Limited to build the underground conduits and provided the rental services to telecommunications operators. Also, the Office of NBTC had notified the DRR of the limitation of being unable to build the conduits due to the provision under Section 39 Paragraph one of the Telecommunications Business Act B.E.2544 (2001) which stipulates that the TC has no power to build the conduits and Section 39 Paragraph Two (1)-(3) stipulates that the licensees shall have duties to build the conduits by themselves, and requested the DRR to review the relevant rules and regulations.





At present, the Office of NBTC has discussed with the Chief of Department of Administration and Coordination of Center for Integration Security Problem Resolution of the National Council for Peace and Order on the issue as well as the case of the construction of conduits in areas of Bangkok by proposing the integration of legislation of organizations such as Bangkok, Department of Rural Roads, etc., relating to the rights of way to build conduits, for the flexibility and the support of telecommunications network expansion and improvement. Later on, in February 2015, the DRR has replied to the Office of NBTC and requested for more information on the expansion of optical fiber network over the bridge across the river which is a good sign for telecommunication operators.

## **2. The use of rights under Section 39, Paragraph One, of the Telecommunications Business Act B.E.2544 (2001)**

The telecommunications operators have requested the Office of NBTC to accelerate the process of consideration for the approval of the requests for the use of rights of way under Section 39, paragraph one, in the case of access network (node to end user) by using optical fiber in order to accommodate the needs of customers who require a huge amount of traffic and to respond to the demand of service users.

The Office of NBTC therefore has reduced the process of approval on the requests for the use of rights of way under Section 39, Paragraph one, in case of the access network by using optical fiber. The process will be done by the Office of NBTC proposed the request to the Sub-committee on the Rights of Way for consideration and recommendations; after that the Office of NBTC proposed the requests and recommendations of the Sub-committee to the Chairman of the TC, instead of proposing to the TC Meeting, for approval. In addition, the Office of NBTC has developed the process of consideration by allowing telecommunications operators who need to exercise their rights under Section 39 Paragraph one in case of access network by using optical fiber to be able to propose the plan of laying wire network for access network by comparing to the case of copper cable exchange. However, if telecommunications operators are unable to propose the plan, they shall propose the requests for using their rights in detailed route which will help make the process of consideration even faster.

# *Appendix*



# *Appendix A*





## Appendix A

### Notifications, Regulations and Orders in 2014

No.	Type/Title	Royal Gazette		
		No.	Chapter	Promulgated on
1	Office of NBTC's Notification on Telecommunications Equipment which passed the Conformity Assessment and Type Approval (No.10/2013)	131	3 D	9 January 2014
2	Office of NBTC's Notification on Additional Conditions for Telecommunications Products produced by Domestic Manufacturers according to Article 7 of the NTC Notification on Measure for Supporting Telecommunications Industry and Related Industry in Telecommunications Services B.E.2553 (2010)	131	Special 4 D	9 January 2014
3	Office of NBTC's Notification on Criteria for the Schedule Programing for the Provision of Broadcasting or Television Services (No.2) B.E.2557 (2014)	131	Special 33 D	17 February 2014
4	Office of NBTC's Notification on Radiocommunications and Equipment in Broadcasting and Television Services which have been registered in Type A	131	Special 36 D	21 February 2014
5	Office of NBTC's Notification on Telecommunications Equipment which passed the Conformity Assessment and Type Approval (No.11/2013)	131	25 D	6 March 2014
6	NBTC's Regulation regarding Healthcare of Officials and Employees B.E.2557 (2014)	131	Special 45 D	11 March 2014



No.	Type/Title	Royal Gazette		
		No.	Chapter	Promulgated on
7	Office of NBTC's Notification on Telecommunications Equipment which passed the Conformity Assessment and Type Approval (No.12/2013)	131	27 D	13 March 2014
8	NBTC's Notification on Officers Appointment and Assignment to Perform Duties for the NBTC in Regulating Broadcasting and Television Services	131	Special 49 D	18 March 2014
9	NBTC's Notification on Technical Standard of Telecommunications Equipment regarding Radiocommunications Equipment for Short Range Devices in the Frequency Band of 57 - 66 GHz in Type of Wireless Local Area Network (WLAN) or Wireless Personal Area Network (WPAN) B.E.2557 (2014)	131	Special 49 D	18 March 2014
10	NBTC's Notification on Licensing to Use Radiocommunications Equipment for Short Range Devices in the Frequency Band of 57 - 66 GHz in Type of Wireless Local Area Network (WLAN) or Wireless Personal Area Network (WPAN) B.E.2557 (2014)	131	Special 49 D	18 March 2014
11	NBTC's Notification on Technical Standard of Telecommunications Equipment on Radiocommunications Equipment for Base Station and Repeater Station of International Mobile Telecommunications (IMT) which use Evolved Universal Terrestrial Radio Access (E-UTRA) Technology	131	Special 49 D	18 March 2014





No.	Type/Title	Royal Gazette		
		No.	Chapter	Promulgated on
12	NBTC's Notification on Technical Standard of Telecommunications Equipment on Radiocommunications Equipment for Slave Station of International Mobile Telecommunications (IMT) which use Evolved Universal Terrestrial Radio Access (E-UTRA) Technology	131	Special 49 D	18 March 2014
13	Office of NBTC's Notification on Telecommunications Equipment which passed the Conformity Assessment and Type Approval (No.1/2014)	131	39 D	17 April 2014
14	NBTC's Regulation regarding Division of Internal Organization of the Office of NBTC B.E.2557 (2014)	131	Special 64 D	18 April 2014
15	NBTC's Regulation regarding Lethal used for the Prevention of Explosives B.E.2557 (2014)	131	Special 67 D	23 April 2014
16	NBTC's Notification on Designation of Characteristics and Types of Broadcasting and Television Services (No.2) B.E.2557 (2014)	131	Special 71 D	29 April 2014
17	NBTC's Notification on Criteria for Telecommunications Allocation and Management	131	Special 75 D	7 May 2014
18	NBTC's Notification on Telecommunications Numbering Plan	131	Special 75 D	7 May 2014



No.	Type/Title	Royal Gazette		
		No.	Chapter	Promulgated on
19	Office of NBTC's Notification on Telecommunications Equipment which passed the Conformity Assessment and Type Approval (No.2/2014)	131	48 D	8 May 2014
20	NBTC's Regulation regarding Allowances and Other Expenditures of the Committee on Performance Follow-up and Evaluation (No.2) B.E.2557 (2014)	131	Special 91 D	30 May 2014
21	NBTC's Notification on Licensing Criteria and Procedure for the Provision of Broadcasting or Television Services (No.2) B.E.2557 (2014)	131	Special 102 D	6 June 2014
22	Office of NBTC's Notification on Telecommunications Equipment which passed the Conformity Assessment and Type Approval (No.3/2014)	131	60 D	12 June 2014
23	Office of NBTC's Notification on Guidelines for Consideration and Calculation of the Proportion of News Programs or Contents that are beneficial to the public for the exemption or reduction of broadcasting or television business license fees, under the NBTC Regulation regarding the Exemption or Reduction of Broadcasting or Television Business License Fees B.E.2556 (2013)	131	Special 113 D	19 June 2014
24	NBTC's Regulation regarding Healthcare of Officials and Employees (No.2) B.E.2557 (2014)	131	Special 137 D	23 July 2014
25	NBTC's Notification on Criteria for Licensing and Regulating Radio Amateur Services	131	Special 137 D	23 July 2014



No.	Type/Title	Royal Gazette		
		No.	Chapter	Promulgated on
26	NBTC's Notification on Reference Telecommunication Network Interconnection Rate B.E.2557 (2014)	131	Special 137 D	23 July 2014
27	Office of NBTC's Notification on Telecommunications Equipment which passed the Conformity Assessment and Type Approval (No.4/2014)	131	79 D	31 July 2014
28	Office of NBTC's Notification on Telecommunications Equipment which passed the Conformity Assessment and Type Approval (No.5/2014)	131	79 D	31 July 2014
29	Office of NBTC's Notification on Radiocommunications and Equipment in Broadcasting and Television which have been registered in Type A	131	Special 153 D	14 August 2014
30	NBTC's Notification on Criteria on Designation of the Provider with Significant Market Power in Relevant Market in Broadcasting and Television Services and Special Measure for the Prevention of the Act of Monopoly or Causing Unfair Competition B.E.2557 (2014)	131	Special 154 D	15 August 2014
31	NBTC's Notification on Criteria for Considering and Setting Special Measure for Improving the Result of Monopoly Behaviour or Causing Unfair Competition in Broadcasting and Television Services B.E.2557 (2014)	131	Special 154 D	15 August 2014
32	Office of NBTC's Notification on Telecommunications Equipment which passed the Conformity Assessment and Type Approval (No.6/2014)	131	95 D	11 September 2014



No.	Type/Title	Royal Gazette		
		No.	Chapter	Promulgated on
33	NBTC's Notification on Criteria and Procedures for Designating the Telecommunications Service Provider with Significant Market Power B.E.2557 (2014)	131	Special 184 D	18 September 2014
34	NBTC's Notification on Market Definition and Scope of Relevant Telecommunications Market B.E.2557 (2014)	131	Special 184 D	18 September 2014
35	NBTC's Notification on Radio Frequency Plan for Digital Terrestrial Television Service (No.2) B.E.2557 (2014)	131	Special 207 D	16 October 2014
36	Corrigenda on NBTC's Regulation regarding Division of Internal Organization of the Office of NBTC B.E.2557 (2014) which has been published in the Royal Gazette, No.131, Special Chapter 64 D, dated 18 April 2014	131	Special 209 D	20 October 2014
37	Office of NBTC's Notification on Application Form for Telecommunications Equipment Conformity Assessment and Type Approval	131	Special 214 D	27 October 2014
38	Office of NBTC's Notification on Scope of the Provision of Telecommunications Equipment Testing Service	131	124 D	20 November 2014
39	NBTC's Notification on Officers Appointment and Assignment to Perform Duties for the NBTC in Regulating Broadcasting and Telecommunication Services	131	Special 237 D	21 November 2014



No.	Type/Title	Royal Gazette		
		No.	Chapter	Promulgated on
40	NBTC's Notification on Appointment of Officers to Issue Licenses under Radiocommunications Act B.E.2498 (1955)	131	Special 237 D	21 November 2014
41	NBTC's Notification on Licensing to Use Radiocommunications Equipment for Vehicle Radar	131	Special 244 D	2 December 2014
42	NBTC's Notification on Technical Standard of Telecommunications and Equipment regarding Radiocommunications Equipment for Vehicle Radar	131	Special 244 D	2 December 2014
43	NBTC's Regulation regarding Allowances and Other Expenditures of the Committee on Performance Follow-up and Evaluation (No.3) B.E.2557 (2014)	131	Special 245 D	3 December 2014
44	NBTC's Regulation regarding Meeting, Allowances, and Expenditure of Sub-committees and Working Groups (No.2) B.E.2557 (2014)	131	Special 248 D	9 December 2014
45	NBTC's Regulation on Personnel Management (No.2) B.E.2557 (2014)	131	Special 267 D	26 December 2014
46	Office of NBTC's Notification on Telecommunications Equipment which passed the Conformity Assessment and Type Approval (No.7/2014)	131	142 D	30 December 2014
47	Office of NBTC's Notification on Telecommunications Equipment which passed the Conformity Assessment and Type Approval (No.8/2014)	131	142 D	30 December 2014



# *Appendix B*





## APPENDIX B

### Public Consultation Activities in 2014

No.	Title	Dates	Channels/Venues
1	Public Consultation Meeting on the (draft) NBTC Notification on Designation of Characteristics and Types of Broadcasting and Television Services (No.2) B.E. ....	9 January 2014	Auditorium, 2 <sup>nd</sup> Floor, Office of NBTC
2	Public Consultation Meeting on the (Draft) NBTC Notification on Licensing Criteria for Radio Broadcasting Trial Operation (No.2) B.E. ....	26 February 2014 - 28 March 2014	Through website of NBTC, email, postal service, fax
3	Public Consultation Meeting on the (Draft) NBTC Notification on Market Definition and Scope of Relevant Telecommunications Market B.E. .... and the (Draft) NBTC Notification on Criteria and Procedures for Designating the Telecommunications Service Provider with Significant Market Power B.E. ....	27 February 2014	Magic 2 Meeting Room, 2 <sup>nd</sup> Floor, Miracle Grand Convention Hotel, Bangkok
4	Focus Group Meeting on Mobile Phone Number Allocation of Pretty Number	6 March 2014	Auditorium, 1 <sup>st</sup> Floor, Office of NBTC
5	Public Consultation Meeting on the (Draft) NBTC Notification on Reference Telecommunication Network Interconnection Rate B.E. ....	20 March 2014 – 20 April 2014	Through website of NBTC, email, postal service, fax
6	Public Consultation Meeting on the (Draft) NBTC Notification on Radio Frequency Plan for Digital Terrestrial Television Services (No.2) B.E. ....	24 April 2014	Office of NBTC



No.	Title	Dates	Channels/Venues
7	Public Consultation Meeting on the (Draft) NBTC Notification on Licensing Criteria for Radio Broadcasting Trial Operation (No.2) B.E. ....	29 April 2014	Rama Gardens Hotel
8	Public Consultation Meeting on the (Draft) NBTC Notification on Licensing Criteria and Procedures for the Provision of Broadcasting or Television Services (No.3) B.E. ....	15 May 2014 - 14 September 2014	Through website of NBTC, email, postal service, fax
9	Public Consultation Meeting on the (Draft) NBTC Notification on Technical Standard of Telecommunications Equipment for Radiocommunications Equipment of Base Unit in On-site Paging System, and the (Draft) NBTC Notification on Technical Standard of Telecommunications Equipment for Radiocommunications Equipment of Pocket Unit in On-site Paging System for setting the standard criteria for licensing to use the Base Unit and Pocket Unit in the On-site Paging System	Ended on 16 May 2014	Meeting Room of Standard and Telecommunication Technology Bureau, Office of NBTC
10	Public Consultation Meeting on the (Draft) NBTC Notification on Criteria and Procedures of the Licensing to Use Spectrum for Telecommunications Services in the Frequency band of 1710 - 1722.5 MHz/ 1805 - 1817.5 MHz and 1748 - 1760.5 MHz/1843 - 1855.5 MHz B.E. ..., and the (Draft) NBTC Notification on Radio Frequency Plan for International Mobile Telecommunications (IMT) in the Frequency band of 1710 - 1785/1805 - 1880 MHz (MHz)	28 May 2014	Imperial Queen's Park Hotel, Bangkok



No.	Title	Dates	Channels/Venues
11	Public Consultation Meeting the (Draft) NBTC Notifications on Promotion of Competition in Broadcasting and Television Services 1. (Draft) NBTC Notification on Criteria on Designation of the Provider with Significant Market Power in Relevant Market in Broadcasting and Television Services and Special Measure for the Prevention of the Act of Monopoly or Causing Unfair Competition B.E. .... 2. (Draft) NBTC Notification on Criteria for Considering and Setting Special Measure for Improving the Result of Monopoly Behaviour or Causing Unfair Competition in Broadcasting and Television Services B.E. ....	29 May 2014	Auditorium, 1 <sup>st</sup> Floor, Office of NBTC
12	Public Consultation Meeting on the (Draft) NBTC Notification on Criteria and Procedures of the Licensing to Use Spectrum for Telecommunications Services in the Frequency band of 897.5 - 915.0 MHz/942.5 - 960.0 MHz B.E. ...., and the (Draft) NBTC Notification on Radio Frequency Plan for International Mobile Telecommunications (IMT) in the Frequency band of 895-915/940 - 960 MHz (MHz)	19 June 2014	Grand Ballroom, Century Park Hotel
13	Public Consultation Meeting the (Draft) NBTC Notification on Licensing Criteria and Procedure for the Provision of Applied Service in Type of Survey Poll in the Broadcasting or Television Services B.E. ....	26 June 2014	Auditorium, 2 <sup>nd</sup> Floor, Office of NBTC
14	Public Consultation Meeting the (Draft) NBTC Notification on Measure for Supporting the Conglomeration of Licensees, Producers, and Mass Media Professionals concerning the Broadcasting and Television Services B.E. ....	30 June 2014	Grand Ballroom, Century Park Hotel



No.	Title	Dates	Channels/Venues
15	Public Consultation Meeting on 1. (Draft) NBTC Notification on Radio Frequency for Fixed-Service in the Frequency Band of 71-76 GHz (GHz) and 81-86 GHz (GHz) 2. (Draft) NBTC Notification on Criteria and Procedures for the Licensing to Use Spectrum for Fixed-Service in the Frequency band of 71 - 76 GHz (GHz) and 81-86 GHz (GHz)	3 July 2014	Auditorium, Office of NBTC
16	Public Consultation Meeting on the NBTC's Result of Consideration on the Project to Support the Public for the Transition to the Viewing of Digital Terrestrial Television in 4 Regions - North (Chiang Mai)  - South (Songkhla)  - Northeast (Khon Kaen)  - Central (Bangkok)	4 July 2014  5 July 2014  8 July 2014  10 July 2014	Empress Grand Hall, 3 <sup>rd</sup> Floor, Empress Convention Center, The Empress Hotel, Chiang Mai  Hunsa J.B. Hotel, Songkhla  Pullman Hotel, Khon Kaen  Le Concord Ballroom, Swiss Hotel Le Concord, Bangkok





No.	Title	Dates	Channels/Venues
17	Focus Group Meeting on “Concept for Setting the Value of Coupon by taking into account of the Consumer Protection and Public Interest” under the Project to Support the Public for the Transition to the Viewing of Digital Terrestrial Television	9 July 2014	Century Park Hotel, Bangkok
18	Focus Group Meeting on Procedures and Selection Methods of the Participants to the Project to Support the Public for the Transition to the Viewing of Digital Terrestrial Television	19 August 2014	Auditorium, 1 <sup>st</sup> Floor, Office of NBTC
19	Public Consultation Meeting on the (Draft) NBTC Notification on Nature and Measure for Regulating the Mergers, Cross-Shareholding, and Dominance in the Broadcasting and Television Services B.E. ....	23 September 2014	Auditorium, 1 <sup>st</sup> Floor, Office of NBTC
20	Public Consultation Meeting on the (Draft) NBTC Notifications regarding the Improvement of Spectrum Usage in the Frequency Band of 806 - 824/851 - 869 MHz <ul style="list-style-type: none"> <li>• (Draft) NBTC Notification on Criteria on the Improvement of Spectrum Usage in the Frequency Band of 806 - 824 MHz (MHz) and 851 - 869 MHz (MHz)</li> <li>• (Draft) NBTC Notification on Radio Frequency Plan for Land Mobile Service in Trunked Radio System in the Frequency Band of 806 - 814 MHz (MHz) and 851 - 869 MHz (MHz)</li> </ul>	8 October 2014	Grand Ballroom, Rama Gardens Hotel



No.	Title	Dates	Channels/Venues
21	Public Consultation Meeting on the (Draft) NBTC Notifications on regarding the Improvement of Spectrum Usage in the Frequency Band of 380 - 510 MHz <ul style="list-style-type: none"><li>• (Draft) NBTC Notification on Criteria on the Improvement of Spectrum Usage in the Frequency Band of 380 - 510 MHz (MHz)</li><li>• (Draft) NBTC Notification on Radio Frequency Plan for Land Mobile Service in Trunked Radio System in the Frequency Band of Digital Trunked Radio in the Frequency Band of 380 - 399.9 MHz (MHz)</li><li>• (Draft) NBTC Notification on Radio Frequency Plan for Land Mobile Service and Fixed Service in the Frequency Band of 401 - 405.9 MHz (MHz) 406.2 - 410 MHz (MHz) and 430 - 450 MHz (MHz).</li></ul>	8 October 2014	Grand Ballroom, Rama Gardens Hotel
22	Public Consultation Meeting on the (Draft) NBTC Notification on Standard of Quality of Telecommunications Service Provision B.E. ....	28 October 2014	Century Park Hotel
23	Public Consultation Meeting on the (Draft) NBTC Notification on Criteria for Prioritizing the Television Services B.E. ....	5 November 2014	Auditorium, Office of NBTC

# *Appendix C*





## Appendix C

### Highlights Activities in 2014

#### Chairmanship Awarded



On 17 December 2014, Air Chief Marshal Thares Punsri, Chairman of the NBTC had received the Chairmanship Awards for the Office of NBTC as the Host of the Successful GSR 2008 from General Choochart Promphasid, Former Chairman of the NTC at the Meeting Room, 12<sup>th</sup> Floor, the Office of NBTC





The Office of NBTC had held the event of the contest in innovation and invention of radio amateurs in the Week of the Radio Amateurs ", in honour of the birthday celebration of His Majesty the King 2014



On 13 December 2014, NBTC Commissioner General Sukit Khamasunthorn, together with Deputy Secretary-General in Telecommunications Affairs and the Sub-Committee for developing the amateur radio service and spectrum for citizen, had participated in the project on the contest in innovation and invention of radio amateurs in the Week of the Radio Amateurs in honour of the birthday celebration of His Majesty the King in 2014, at the Office of NBTC.





Inaugural Ceremony of the Week of the Radio Amateurs  
in honour of the birthday celebration of His Majesty the King in 2014



On 8 December 2014, NBTC Commissioner General Sukit Khamasunthorn had presided over the Inaugural Ceremony of the Week of the Radio Amateurs in honour of the birthday celebration of His Majesty the King in 2014





### Seminar on Digital Radio Technology “DAB Technology and System Architecture”



On 26 November 2014, Lt. Gen. Dr. Perapong Manakit presided over the Opening Ceremony of the Seminar on Digital radio Technology “DAB Technology and System Architecture”. Also, the seminar had the honour of MR. Andrea Speronello, representative from Italy Embassy and MR. Sergio Vlsentin, Chairman of IBAS to participate in the event.





Television recording to felicitate His Majesty the King on the Occasion of National Father's Day, 5 December 2014



On 6 November 2014, Chairman of the NBTC, NBTC Commissioners, Secretary-General of the NBTC, Deputy Secretary-General of the NBTC, and the Executives of the Office of NBTC had attended the television recording to felicitate His Majesty the King on the Occasion of Birthday Anniversary Celebration 5 December 2014, at Modern Nine Television Station





### The Office of NBTC hosted the Royal Kathin Offerings in 2014



On 1 November 2014 the Office of NBTC hosted the Royal Kathin Offerings at Burapha Pitayaram, Chanthaburi province in which Air Chief Marshal Thares Punsri, Chairman of the NBTC, had presided over the Royal Kathin Ceremony, together with NBTC Commissioners, the Executives and officials of the Office of NBTC.





To pay respect to the Monument of King Rama V  
on the occasion of Chulalongkorn Day

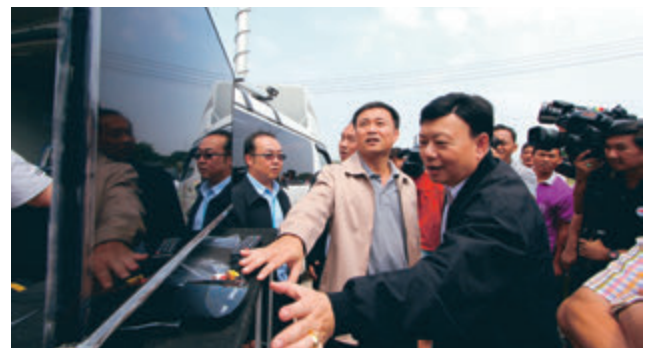


On 23 October 2014, Colonel Dr. Settapong Malisuwan, Vice Chairman of the NBTC, Lt. Gen. Dr. Perapong Manakit, Assoc. Prof. Prasert Silphiphat, Deputy Secretary-General of the NBTC, the Executives and officials of the Office of NBTC jointly paid respect to the Monument of King Rama V on the occasion of Chulalongkorn Day at the Office of NBTC.





### The NBTC took field trip to Suphan Buri province for monitoring digital TV signals



On 14 October 2014, Pol. Col. Taweesak Ngamsanga, NBTC Commissioner, Mr. Takorn Tantasith, Secretary - General of the NBTC and digital TV network engineers took field trip to Suphan Buri province, Don Chedi Sub-district, Don Chedi District, and Wang Khan Sub-district, Dan Chang District, to monitor digital terrestrial television network signals in the areas and distributed discount coupons at the amount of 690 baht in the first phase, including providing information on digital TV to the public.





## Commencement of the Distribution of Digital TV Coupons, the NBTC Restores Happiness to Thai People



On 10 October 2014, the Office of NBTC had held the Ceremony of Delivery of Digital TV Coupons to the Thailand Post Company Limited for distributing to households in 21 pilot provinces under the project to support the public for the transition to the viewing of digital terrestrial television.







### The Ceremony of 3<sup>rd</sup> Anniversary of the Establishment Day of the Office of NBTC



On 7 October 2014, the Office of NBTC had held the ceremony of 3<sup>rd</sup> Anniversary of the Establishment Day of the Office of NBTC by paying royal homage, worship, and performing religious practices and making of merits for dedicating to charity and merit to His Majesty the King Rama V, Field Marshal Somdet Phra Ratchapitula Borommaphongsaphimuk Chao Fa Bhanurangsi Savangwongse Krom Phraya Bhanuphantuwongse Woradet and His Highness Prince Burachat Chaikyorn Krom Phra Kamphaeng Phet Akarayothin, as well as dedicating to the antecedents on radio, communications and telecommunications.



### The NBTC Blesses to His Majesty King Bhumibol Adulyadej at Siriraj Hospital



On 6 October 2014, Air Chief Marshal Thares Punsri, Chairman of the NBTC, Mr. Takorn Tantasith, Secretary-General of the NBTC, and the Executives of the Office of NBTC had joined the bless to His Majesty King Bhumibol Adulyadej at Siriraj Hospital.





“NBTC DAY: KM Excellence 2014”



During 1 - 3 October 2014, the Office of NBTC had organized the “NBTC DAY: KM Excellence 2014” in which Air Chief Marshal Thares Punsri, Chairman of the NBTC presided over the Opening Ceremony at the Auditorium, 1<sup>st</sup> Floor, the Office of NBTC.





Activities to dedicate to charity for Her Majesty the Queen in Occasion  
of the 82<sup>nd</sup> Birthday Anniversary Celebration



On 8 August 2014, the Office of NBTC had organized activities to dedicate to royal charity for Her Majesty the Queen in Occasion of the 82<sup>nd</sup> Birthday Anniversary Celebration 12 August 2014. The activities consisted of making merit by offering foods to monks and inviting employees to donate blood at the Office of NBTC.





Presenting Budget to Her Royal Highness Princess Maha Chakri Sirindhorn for the Implementation of the Project  
for the Improvement of Information Network, Chulachomklao Royal Military Academy



On 6 August 2014, Her Royal Highness Princess Maha Chakri Sirindhorn had granted an audience to the Air Chief Marshal Thares Punsri, Chairman of the NBTC, together with the NBTC Commissioners to present the budget for the Implementation of the Project for the Improvement of Information Network, and set up enterprise architecture of Chulachomklao Royal Military Academy at Division of History, Section of Education, Nakhon Nayok province, in the Celebrations on the Auspicious Occasion of Her Royal Highness Princess Maha Chakri Sirindhorn's 5<sup>th</sup> Cycle (60<sup>th</sup>) Birthday Anniversary, and having served at the Chulachomklao Royal Military Academy for 35 years in 2014.





### Ceremony of Paying Homage to the Royal Statue of King Rama V



On 4 August 2014, Air Chief Marshal Thares Punsri, Chairman of the NBTC, together with Mrs. Methinee Thepmanee, Permanent Secretary of Ministry of Information and Communication Technology Acting Minister of Information and Communication Technology, NBTC Commissioners, Secretary-General of the NBTC, the Executives of the Office of NBTC including representatives of relevant organizations from public agencies and private sector, had attended the Ceremony of Paying Homage to the Royal Statue of King Rama V at the courtyard in front of the Main Building of the Office of NBTC.



**The NBTC Blesses to His Royal Highness Crown Prince Maha Vajiralongkorn  
on the Auspicious Occasion of the 60<sup>th</sup> Birthday Anniversary Celebration**



On 28 July 2014, Air Chief Marshal Thares Punsri, Chairman of the NBTC and Mr. Takorn Tantasith, Secretary-General of the NBTC had joined the bless to His Royal Highness Crown Prince Maha Vajiralongkorn on the Auspicious Occasion of the 60<sup>th</sup> Birthday Anniversary Celebration at Dusit Throne Hall, the Grand Palace.

**Opening Ceremony of the Seminar on Knowledge Management of the Office of NBTC in 2014**



On 9 July 2014, Mr. Takorn Tantasith, Secretary-General of the NBTC as CKO (Chief Knowledge Officer) had presided over the Seminar on Knowledge Management of the Office of NBTC in 2014 at Grand Ballroom, 1<sup>st</sup> Floor, Mandarin Hotel, Bangkok.





### Opening Ceremony of e-Library and Information Center of the Office of NBTC



On 16 June 2014, Air Chief Marshal Thares Punsri, Chairman of the NBTC presided over the opening ceremony of e-library and information center of the Office of NBTC for the public benefit.





### The TC Meets the Public in the 2<sup>nd</sup> Year



On 18 May 2014, Vice Chairman of the NBTC and Chairman of the Telecommunications Commission, Colonel Dr. Settapong Malisuwan had presided over the opening ceremony of the “TC Meets the Public in the 2<sup>nd</sup> Year”, No.1/2014 at Dusit Thani, Hua Hin, Prachuap Khiri Khan.

### The lecture on “Readiness for the development of television from analog to digital system”



On 3 April 2014, Vice Chairman of the NBTC, Colonel Dr. Natee Sukonrat had given the lecture on “Readiness for the development of television from analog to digital system” to the Students from the Royal Thai Air Force, Education Department of the Air Force.



The Office of NBTC hosted the ceremony of royal cremation practice charity to  
Somdet Phra Nyanasamvara Somdet Phra Sangharaj the Supreme Patriarch of Thailand



On 21 March 2014, the Chairman of the NBTC, NBTC Commissioners and the Executives of the Office of NBTC had joined the ceremony of royal cremation practice charity to Somdet Phra Nyanasamvara Somdet Phra Sangharaj the Supreme Patriarch of Thailand at Wat Bowonniwet Vihara. Also, the Office of NBTC had joined hosting the ceremony of royal cremation practice charity to Somdet Phra Nyanasamvara Somdet Phra Sangharaj the Supreme Patriarch of Thailand.

Public Consultation Meeting on the (Draft) NBTC Notification on Determination of Nature  
and Type of Broadcasting and Television Services (No.2) B.E. ....



On 9 January 2014, Vice Chairman of the NBTC and Chairman of the Broadcasting Commission had presided over the opening ceremony of the Public Consultation Meeting on the (Draft) NBTC Notification on Determination of Nature and Type of Broadcasting and Television Services (No.2) B.E. ...., at the Auditorium, 2<sup>nd</sup> Floor, the Office of NBTC.

# *Appendix D*







## Address of the Office of NBTC (Headquarters and Regional Offices)

### The Office of NBTC (Headquarters)

Address: 87 Phaholyothin Road 8, Sam Sen Nai,  
Phayathai Bangkok 10400  
Tel: 0 2271 0151-60  
Fax: 0 2290 5035  
Website: www.nbtc.go.th Call center 1200

### The Office of NBTC (Regional Offices)

#### The Office of NBTC Region 1

Address: Postel Building, Lak Si, 101 Moo 4, Soi  
Chaeng Wattana 5 Chaeng Wattana Road,  
Thung Song Hong, Lak Si Bangkok 10210  
Tel: 0 2588 3594, 0 2950 5875, 0 2950 5883 ext. 101-104  
Fax: 0 2950 5876  
E-mail: mtr\_nb@nbtc.go.th  
Call Sign: HS0AA  
Area of Responsibility: The Office of NBTC Region 1 is responsible for  
regulating and controlling the operation of the  
Office of NBTC Sub-region as follows:

#### Office of NBTC Sub-region 1 (Nonthaburi)

Address: 41/287 Moo 8 Rattana Thibet Road,  
Bang Kra Sor Sub-district,  
Mueang Nonthaburi District  
Nonthaburi 11000  
Tel: 0 2588 3594, 0 2950 5875, 0 2950 5883 ext. 101-104  
Fax: 0 2950 5876  
E-mail: mtr\_nb@nbtc.go.th  
Call Sign: HS0AA  
Area of Responsibility: Bangkok, Nonthaburi, Chai Nat, Pathum Thani,  
Sing Buri, Phra Nakhon Si Ayutthaya, Samut Prakarn,  
Ang Thong, Ratchaburi, Nakhon Pathom,  
Kanchanaburi, Samut Sakhon, Samut Songkhram,  
Suphan Buri

#### Office of NBTC Sub-region 5 (Chanthaburi)

Address: 207 Moo 1, Makham Sub-district, Makham District  
Chanthaburi 22150  
Tel: 0 3936 1261-2, 0 3938 9437  
Fax: 0 3938 9437  
E-mail: mtr\_jb@nbtc.go.th  
Call Sign: HS2AA  
Area of Responsibility: Chanthaburi, Rayong, Chon Buri, Sa Kaeo, Trat,  
Chachoengsao, Prachin Buri







### The Office of NBTC Region 2

Address: 550 Moo 11, Klang Arwut Road, Kham Yai Sub-district, Mueang, Ubon Ratchathani 34000  
 Tel: 0 4528 1706-9  
 Fax: 0 4531 4024  
 E-mail: mtr\_ub@nbt.go.th  
 Call Sign: HS3AA  
 Area of Responsibility: The Office of NBTC Region 2 is responsible for regulating and controlling the operation of the Office of NBTC Sub-region as follows:

### Office of NBTC Sub-region 2 (Ubon Ratchathani)

Address: 550 Moo 11, Klang Arwut, Kham Yai, Mueang, Ubon Ratchathani 34000  
 Tel: 0 4528 1706-9  
 Fax: 0 4531 4024  
 E-mail: mtr\_ub@nbt.go.th  
 Call Sign: HS3AA  
 Area of Responsibility: Ubon Ratchathani, Si Sa Ket, Surin, Mukdahan, Yasothon, Amnat Charoen

### Office of NBTC Sub-region 6 (Khon Kaen)

Address: 341 Moo 19, Opposite of Wat Mai Non Muang, Sila, Mueang, Khon Kaen 40000  
 Tel: 0 4320 2601-4  
 Fax: 0 4320 2600  
 E-mail: mtr\_kk@nbt.go.th  
 Call Sign: HS4AA  
 Area of Responsibility: Khon Kaen, Roi Et, Chaiyaphum, Maha Sarakham, Kalasin

### Office of NBTC Sub-region 7 (Nakhon Ratchasima)

Address: 15 Moo 12, Rachatsima-Kabin Buri Rd., Thongchai-nua, Pak Thong Chai, Nakhon Ratchasima 30150  
 Tel: 0 4496 9568, 0 4496 9569  
 E-mail: mtr\_nr@nbt.go.th  
 Call Sign: HS3AZ  
 Area of Responsibility: Nakhon Ratchasima, Buri Ram, Lop Buri, Saraburi, Nakhon Nayok

### Office of NBTC Sub-region 8 (Udon Thani)

Address: Wattana Rd., Mhakkaeng, Mueang, Udon Thani 41000  
 Tel: 0 4222 3657  
 Fax: 0 4224 2047  
 E-mail: mtr\_ut@nbt.go.th  
 Call Sign: HS4AZ  
 Area of Responsibility: Udon Thani, Nong Khai, Sakon Nakhon, Loei, Nakhon Phanom, Nong Bua Lam Phu, Bung Kan



### The Office of NBTC Region 3

Address: 248 Moo 12, Jamadhewi Rd., Bo-Haew, Mueang, Lampang 52100

Tel: 0 5431 3920-2

Fax: 0 5431 3923

E-mail: mtr\_lp@nbt.go.th

Call Sign: HS5AA

Area of Responsibility: The Office of NBTC Region 3 is responsible for regulating and controlling the operation of the Office of NBTC Sub-region as follows:

### Office of NBTC Sub-region 3 (Lampang)

Address: 248 Moo 12, Jamadhewi Rd., Bo-Haew, Mueang, Lampang 52100

Tell: 0 5431 3920-2

Fax: 0 5431 3923

E-mail: mtr\_lp@nbt.go.th

Call Sign: HS5AA

Area of Responsibility: Lampang, Nan, Phrae, Uttaradit, Sukhothai, Tak

### Office of NBTC Sub-region 9 (Chiang Mai)

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Tel: 0 5380 5904-5, 0 5327 4413, 0 5327 4686

Fax: 0 5327 4670

E-mail: mtr\_cm@nbt.go.th

Call Sign: HS5AZ

Area of Responsibility: Chiang Mai, Mae Hong Son, Lamphun

### Office of NBTC Sub-region 10 (Phitsanulok)

Address: 190 Moo 7, Ban Kungmor, Parkthong, Mueang, Phitsanulok 65000

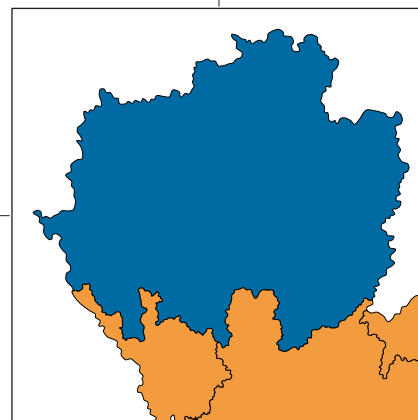
Tel: 0 5524 5151-2

Fax: 0 5524 5150

E-mail: mtr\_pl@nbt.go.th

Call Sign: HS6AZ

Area of Responsibility: Phitsanulok, Phichit, Phetchabun, Nakhon Sawan, Uthai Thani, Tak, Kamphaeng Phet





#### The Office of NBTC Region 4

Address: 89/1 Hat Yai Airport, Thungtamsao, Hat Yai, Songkhla 90115  
 Tel: 0 7425 1901-4  
 Fax: 0 7425 1091  
 E-mail: mtr\_song@nbt.go.th  
 Call Sign: HS9AA  
 Area of Responsibility: The Office of NBTC Region 4 is responsible for regulating and controlling the operation of the Office of NBTC Sub-region as follows:

#### Office of NBTC Sub-region 4 (Songkhla)

Address: 89/1 Hat Yai Airport, Thungtamsao, Hat Yai, Songkhla 90115  
 Tel: 0 7425 1901-4  
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 E-mail: mtr\_song@nbt.go.th  
 Call Sign: HS9AA  
 Area of Responsibility: Songkhla, Satun, Pattani, Yala, Narathiwat

#### Office of NBTC Sub-region 11 (Phuket)

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 Area of Responsibility: Phuket, Phang-Nga, Krabi

#### Office of NBTC Sub-region 12 (Nakhon Si Thammarat)

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 E-mail: mtr\_ns@nbt.go.th  
 Call Sign: HS8AA  
 Area of Responsibility: Nakhon Si Thammarat, Suratthani, Phatthalung, Trang

#### Office of NBTC Sub-region 13 (Ranong)

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#### Office of NBTC Sub-region 14 (Chumphon)

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 Fax: 0 7755 3397  
 E-mail: mtr\_cp@nbt.go.th  
 Call Sign: HS8AH  
 Area of Responsibility: Chumphon, Prachuap Khiri Khan, Phetchaburi

# *Appendix E*







## Appendix E

### Editorial

#### Advising Editors

Chairman of the NBTC and NBTC Commissioners  
Air Chief Marshal Pairoj Rattanapol  
Air Chief Marshal Tawan Mahadthai  
Mr. Cherdchai Meekam  
Mr. Takorn Tantasith  
Secretary-General of the NBTC

#### Executive Editor

Mr. Trirath Viriyasirikul  
Deputy Secretary-General of the NBTC

#### Editors

- |   |  |
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| 2. Mr. Chalermchai Kokkiatekul,         | Executive Director of Secretariat Office of the Chairman and Proceedings Bureau                  |
| 3. Ms. Korkanok Kijbanjai,              | Executive Director of Broadcasting Corporate Affairs Bureau                                      |
| 4. Mr. Jitsak Phasukjittham,            | Division Director, Finance Bureau  |
| 5. Mr. Sompob Rattanathammawat,         | Division Director, Secretariat Unit of the Internal Audit Committee                              |
| 6. Mr. Taratthep Dhevakul Na Ayutthaya, | Acting Division Director, Secretariat Unit of the Monitoring and Performance Appraisal Committee |
| 7. Mr. Nattawut Ardparu,                | Division Director, Spectrum Management Bureau  |
| 8. Mrs. Ratchadawan Janthornsith,       | Spectrum Corporate and Regional Affairs Bureau   |
| 9. Ms. Benjawan Chumreonporn,           | Staff to Vice Chairman of NBTC   |
| 10. Mr. Ratchatapong Pintusene,         | Public Relations Bureau  |
| 11. Mr. Ratdhi Rangsikamolwat,          | Telecommunications Policy and Resources Management Bureau  |
| 12. Mr. Wissanu Peantong,               | Telecommunications Policy and Resources Management Bureau  |
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| 17. Ms. Nuntawan Soonngam,              | Strategic and Budget Bureau  |



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