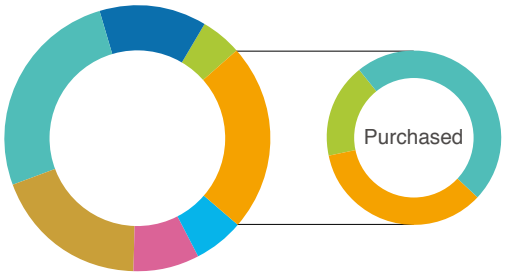
CHANGE FOR POWER 2015

Taiwan Power Company Sustainability Report

CHANGE FOR POWER

Installed Capacity (40.79 GW)

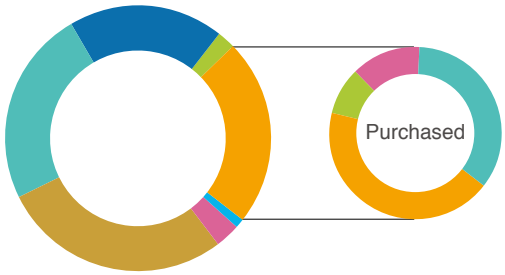
Purchased	9,386 MW	23%
Pumped storage hydro	2,602 MW	6%
Oil	3,325 MW	8%
Coal	7,600 MW	19%
Gas	10,635 MW	26%
Nuclear	5,144 MW	13%
Renewable energy	2,094 MW	5%



IPP - Gas	4,610 MW	11%
IPP - Coal	3,097 MW	8%
Renewable energy	1,679 MW	4%

Power Generation (219,224 GWh)

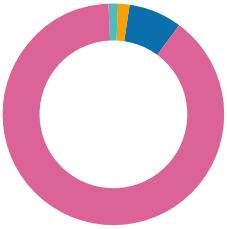
Purchased	50,166 GWh	23%
Pumped storage hydro	3,108 GWh	1%
Oil	6,259 GWh	3%
Coal	60,825 GWh	28%
Gas	53,734 GWh	24%
Nuclear	40,801 GWh	19%
Renewable energy	4,331 GWh	2%



IPP - Gas	17,181 GWh	8%
IPP - Coal	21,524 GWh	10%
Renewable energy	4,457 GWh	2%
Cogeneration	7,004 GWh	3%

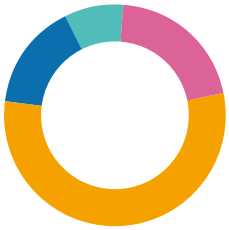
Customers (13,389 thousand)

Residential	11,975	89.4%
Industrial	210	1.6%
Commercial	1,008	7.5%
Others	196	1.5%

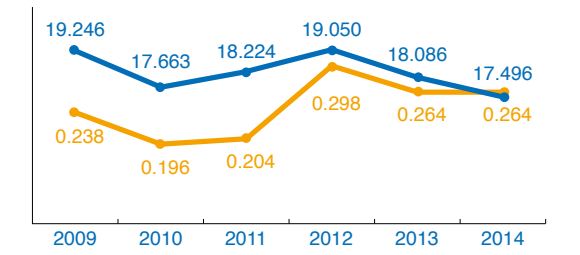


Sales (205,956 GWh)

Residential	42,506	20.6%
Industrial	113,939	55.3%
Commercial	32,064	15.6%
Others	17,447	8.5%



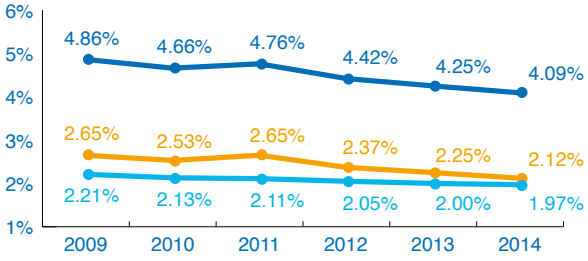
2009-2014 Power Outage Duration and Frequency



Duration of power outage per household (min/household x year)

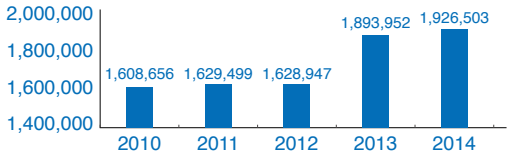
Frequency of power outage per household (times/household x year)

2009-2014 Line Loss

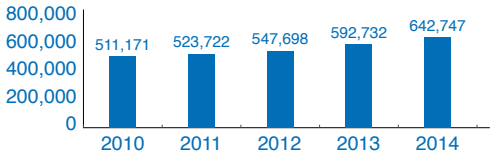


Total system | Transmission system | Distribution system

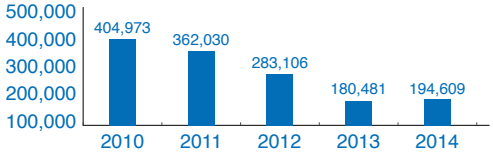
Total Assets (TWD million) Note



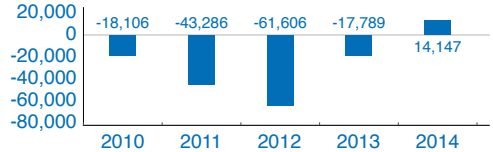
Operating Revenue (TWD million) Note



Stockholders' Equity (TWD million) Note



Gain/Loss before Income Tax (TWD million) Note



Note: Figures above have been audited by accountants using the ROC GAAP established in 2012 and the IFRS established in 2013.

This is the ninth issue of the annual Sustainability Report published by Taiwan Power Company (Taipower). This year, the statistics and disclosures in the report have been compiled in accordance with the "Core" option of the G4 Guidelines of the Global Reporting Initiative (GRI). This report has been verified by the British Standards Institution (BSI) Taiwan to ensure that the report meets the requirements of the Core Option of the GRI G4 Guidelines and the GRI Electric Utilities Sector Disclosures, as well as the accountability principle standards (APS) set forth in AA1000 (Type I Moderate Level).

In response to changes in the external environment and in line with its long-term vision for the future energy development of Taiwan as well as the company's own sustainable development, Taipower initiated a process of corporate renewal in 2013, designed to improve its overall business performance and strengthen its operating structure in the hope of creating a better future energy system for Taiwan. Therefore, the Sustainability Report 2015 has "Change for Power" as its theme, and reidentifies the material aspects of the company's operations. The report also presents the preliminary results of the organizational restructuring, which reflect the beginning of a transformation, and aims to help the public develop a fuller understanding of Taipower's endeavors in developing itself as a sustainable enterprise.

◆ Period Covered by the Report

From January 1 to December 31, 2014 (For the sake of complete disclosure and comparability, the report also includes some historical data.)

◆ Scope of the Report

This report covers data and information regarding sustainability issues and achievements within the areas of management, social responsibility and environmental sustainability.

◆ Inquiries

The complete report (in the PDF format) can be downloaded from Taipower's website (http://www.taipower.com.tw/). In addition, Taipower has a dedicated section on Sustainable Development (http://csr.taipower.com.tw) on its website, which functions as a platform to communicate with stakeholders about its performance on sustainability issues. The Information Disclosure section of Taipower's website contains information related to this report and statistical data from the past years. We will be very glad if you have any feedback regarding Taipower's Sustainability Report. This will enable us to better meet your requirements to publish the next Sustainability Report in the third quarter of 2016. You can contact us by the following methods:

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Sustainable Development Website: http://csr.taipower.com.tw/


Sustainability Report 2007
Published 2007


Sustainability Report 2008
Published August 2008

Sustainability Report 2009
Published August 2009

Sustainability Report 2010
Published August 2010

Sustainability Report 2011
Published August 2011

Sustainability Report 2012
Published August 2012

Sustainability Report 2013
Published August 2013

Sustainability Report 2014
Published August 2014

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In 2014, international fuel prices slipped and therefore electricity prices were adjusted downward. At Taipower, everyone's cost-consciousness was reinforced, which drove us to activate assets, reduce capital expenditure, lower fuel inventory levels, shorten repair times, refine our generation scheduling system, and much more. All these economical measures contributed to turn our company figures black again, and engendered outstanding results in many aspects of our operating performance.

Taipower's energy sales reached 205,956 GWh in 2014, 2% up from 2013, putting an end to eight consecutive yearly losses. Even after passing TWD 9.4 billion of softer fuel prices on to the general public, we still concluded the year with a TWD 14.1 billion surplus, in contrast with a TWD 17.8 billion deficit the year before, a substantial increase of TWD 31.9 billion in operating results. Even though by the end of 2014 accumulated losses still totaled TWD 193.5 billion, the transformation of our management resulted in stellar performance, as we step out of the woods and unto greener pastures. In 2014, Taipower improved economic, environmental and social aspects of sustainable business, such as:

- In terms of management performance, the thermal efficiency of our fossil-fired power plants (gross Lower Heating Value) reached 43.35%, the line loss rate dropped to 4.09%, and the SAIDI diminished to 17.496 (min./cus./Yr.) — all new records for our company. Nuclear power generation capacity posted 40.8 TWh, with a capacity factor of 93.75%, and not a single emergency shutdown at the six generators in our nuclear power plants, which were excellent results indeed.
- Our many efforts to ensure a steady supply of fuel for power generation resulted in permission for autonomously purchasing natural gas from abroad, and also in the establishment of a "natural gas business performance task force" within the Ministry of Economic Affairs, which will benefit the transparency of natural gas cost data.
- In line with the Pilot Program for Voluntary Purchase of Green Power of the Ministry of Economic Affairs, our company prepared a green power subscription plan. Moreover, building a green power information management system, actively promoting the service, and highlighting the company's energy saving and love for the earth enable Taipower to enhance its image as a responsible corporate citizen.
- To improve its customer service, Taipower complemented its telephone hotline 1911 with additional online services, such as blackout updates and queries page on its website, offering more options to obtain information on power outages.
- As part of the Light of Love program, we invited villages around power plants to join the Unique Feature for each township program to promote local industrial development and improve local living standards. We also pushed the Project to Support the Beautification of Areas Surrounding Power Plants to enhance the company's corporate image and good neighborship.

- In 2014, our performance again received recognition through numerous awards. Internationally, Taipower received four awards in the Asian Power Awards. In the Getting Electricity Index in Doing Business 2015, released by the World Bank, Taiwan ranked no.2 among 189 economic entities worldwide. Domestically, Taipower received an award of engineering excellence in the 14th Public Works Gold Medal Awards. Taipower's Sustainability Report 2014 was honored with the Large Enterprises Service Gold Award and the Innovation and Growth Award, both from the Taiwan Institute for Sustainable Energy.

Looking to the future, Taipower will continue improving and reforming matters of concern to stakeholders, especially the following:

1. Enhancing Information Disclosure

The Information Disclosure section of the Taipower website continuously releases the status of 23 parameters, such as power generation, power supply and demand, pricing, etc. In addition, as of April 2014, Taipower's new tariff formulas are listed in the Electricity Tariff Schedule section. In the future, even more operational information and performance indicators will be added. Through this way, the public may develop an in-depth understanding of Taipower's cost structure and price adjustments.

2. Driving Organizational Transformation

Taipower is restructuring its organization for the possible operating environmental changes of the future power industry. The establishment of Business Unit serves to raise cost awareness and to comply with society's expectations and future challenges. The core businesses are reorganized into four divisions: hydro/thermal power generation, nuclear power generation, transmission and supply, and distribution and sales, which will be effective in 2016.

3. Building a Green Enterprise

To deliver the company's green credentials, the Green Enterprises Creative Platform was established in 2014, and the Taipower Green Network will also be implemented in 2015. Taipower treats itself as a green citizen to its stakeholders.

4. Passing on the Company Heritage

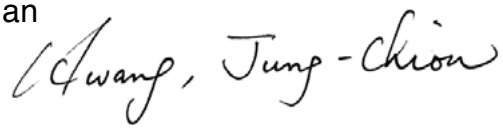
Electricity is an intangible product, which relies on human activity to turn itself into valuable and meaningful products. It is company stories, told through sound, visuals, and performance, that touch people and make them vivid. As people rediscover and appreciate the importance and beauty of electricity, Taipower's corporate image will improve and cohesion thus will be built.

5. Strengthening Social Communication

Although Taipower has done much in this regard, and has achieved considerable successes, such as information disclosure, Taipower TV, a gallery, and thanksgiving activities to decommissioned power generation equipment, some misunderstandings among the general public still remain. This calls for stepping up Taipower's communication with the public to replace zero-sum thinking with win-win thinking and, in that vein, reinforce the concept that "when Taipower is doing well, everyone benefits." All departments can do more to foster this awareness.

The past year continued to pose many challenges to Taipower, but the company has made many endeavors to adjust its mindset and optimize its operating system. Gradually results have accumulated, and are becoming visible, not least in the black figures we posted last year. Taipower will continue to advance down this road, improving its business, beauty, and bonds with Taiwanese people. If Taipower flies, Taiwan soars.

Chairman



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1.1 Profile of Taipower

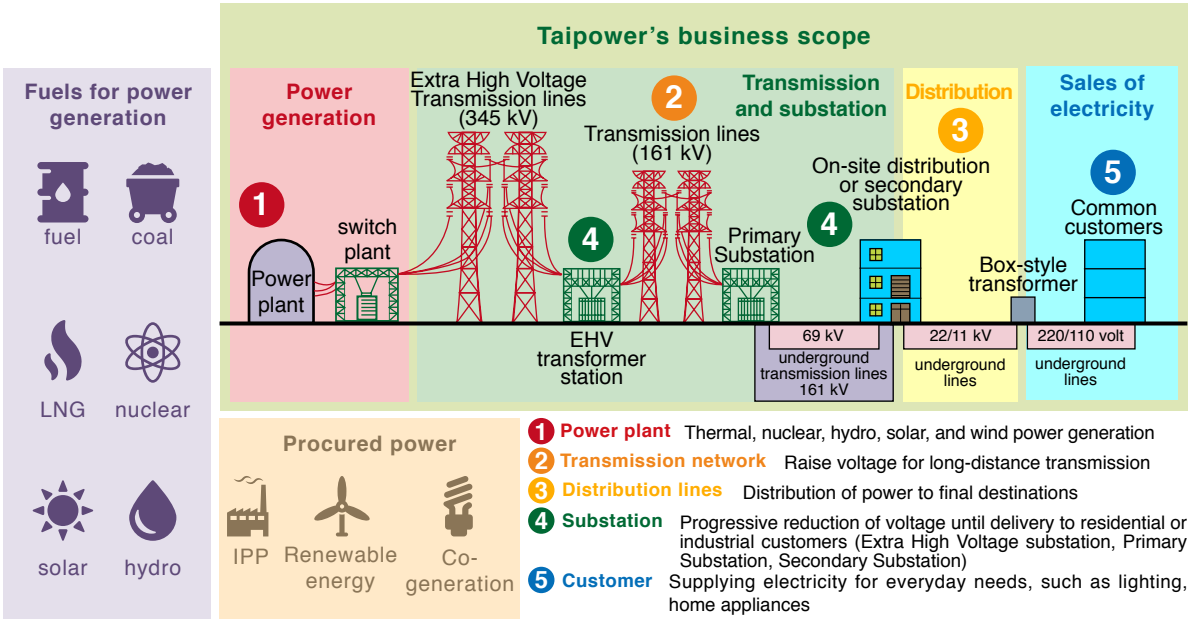
1.1.1 Introduction

Taiwan Power Company (Taipower) was established on May 1, 1946. It is a vertically integrated electrical power utility company. Its business scope includes generation, transmission, distribution and sales of electricity. Under the Electricity Act, Taipower bears the obligation to supply electricity. Power sales accounted for 98.4% of Taipower's revenue in 2014.

As of 2014, the Taipower system (including independent power plants, IPPs) had a total installed capacity of 40.79 GW. Its main energy sources comprise thermal and nuclear power, combined with hydro and other forms of renewable energy. In terms of transmission and distribution, at the end of 2014, Taipower had 603 transmission (sub) stations along 17,286 km of transmission lines (3,904 km of overhead power lines and 101 km of underground power lines of 345 kV; 4,656 km of overhead power lines and 2,359 km of underground power lines of 161 kV; 4,682 km of overhead power lines and 1,584 km of underground power lines of 69 kV) and 356,428 km of distribution lines (227,697 km of overhead power lines and 128,731 km of underground powerlines of 22.8 kV or less).

Founded	May 1, 1946
Coverage	Taiwan, Penghu, Kinmen, Matsu Areas
Headquarters	Taipei
Capital	TWD 330 billion
Stock	96.2% government-owned, 3.08% private-owned
Total assets	TWD 1,926.5 billion
Annual revenue	TWD 642.7 billion
Employees	26,533
Customers	13.39 million
Installed capacity	Taipower system 40.79 GW (Taipower-owned 31.4 GW)
Power generated and purchased	219,224 GWh

Taipower procures fuel from suppliers (fuel for thermal and nuclear power generation is all imported) to generate electricity, and purchases electricity from independent (gas/coal), cogeneration, and renewable power plants. All this electricity is transmitted over the Taipower network to downstream customers. The vertical integration of power generation, transmission, distribution and sales ensures a stable and high-quality electricity supply.



Major Changes in 2014

No. 1 and No. 2 Units of the Linkou Power Plant were decommissioned

After 40 years of loyal service, the power generation units of the Linkou Power Plant were decommissioned as part of a program to upgrade the power generation capacity of the northern region. The two units with a joint power generation capacity of 600 MW were deactivated in September 2014. Three new coal-fired units with a total capacity of 800 MW are currently being installed to increase power output. The new No. 1 unit is expected to commence operation in July 2016.

Construction for the Longmen Power Plant ("NPP 4") was suspended.

To allay the controversy surrounding the Longmen Power Plant (NPP 4), the government issued an instruction to Taipower on April 28, 2014 to "halt work but complete safety inspections on the No. 1 reactor of the fourth nuclear power plant, and seal the plant after the inspections, and discontinue all construction on the No. 2 reactor of the fourth nuclear power plant", the reasons being that the postponement of the decommissioning of nuclear power plants 1, 2, and 3 has not been decided yet, while the nuclear power controversy remains unresolved. The forthcoming Energy Development Policy will promote a combination of different sources for power generation.

Taipower is a public utility that endeavors to improve its operations and customer service. Based on its two-pronged approach of Cutting Cost and Creating Value, the company continues to pursue sustainable development by providing superior and abundant electricity to support the country's economic development and enhance the public welfare.

As a state-owned company, Taipower's business adheres to the administrative law of State-owned Enterprise. Therefore, establishments related Taipower units, accounting, auditing, budget, business planning, public industry rates, and long-term purchase and sales contracts must gain the approval of the head authority. The Ministry of Economic Affairs is Taipower's head authority for its target industries, with a subsidiary state-owned committee that monitors and manages Taipower's various businesses, and transmits related commands of other divisions, including the MOEA Bureau of Energy, Executive Yuan's National Development Council and the National Audit Office etc.

In addition, Taipower must handle issues according to this regulation or relevant laws, which comprise Government Procurement Act, Accounting Act, Electricity Act, etc. Implementing organizational transformation, Taipower needs to consider restrictions from regulations such as the State-owned Business Act, Government Procurement Act, Accounting Act, Electricity Act, Budget Act, and Government Accounting Act, etc.

Plant Average Availability in 2014

Unit	Energy Type	Average Availability(%)
Thermal	Oil	90.20
	Coal	92.68
	LNG	91.21
Combined cycle	LNG	89.44
Nuclear	Uranium	92.00
Hydro	Hydro	92.63
Wind	Wind	93.81

1. Thermal Unit Availability = (1- Period Unit Impact on Power Supply/ No. of Hours/Unit Max Net Output)
2. Thermal Plant Average Availability = Σ (Unit Availability × Unit Max Net Output) / ΣUnit Max Net Output
3. Nuclear Various Units Availability = Annual No. of Hours of Parallel Power Generation /Annual Total No. of Hours
4. Hydro Unit Availability = (Operational Period + No. of Standby Hours) / Annual No. of Hours
5. Hydro and Nuclear Power Plant Annual Availability = Arithmetic mean of Unit Annual Availability
6. Wind Power Plant Annual Availability = No. Hours of Power Generation (including non-active hours) /Annual No. of Hours

1.1.2 Taiwan's Power Plants and Power Grid

1.1.3 Participation in External Organizations

Taipower involves in many national and international organizations. Below follows a list of organizations in certain projects or committees Taipower is participating, or which organizations are of strategic importance to Taipower:

Institute of Nuclear Power Operations, INPO

INPO's nuclear power plant operator documents and technical databases are the standard reference materials for nuclear industry worldwide. Through its INPO membership, Taipower can directly communicate with the American nuclear power industry and nuclear power plants. Through INO visits and inspections, we can share and use more information.

World Association of Nuclear Operators, WANO

The World Association of Nuclear Operators (WANO) is an international, non-profit group of nuclear power plant operators which focuses on achieving the highest possible standards of nuclear safety and performance. Taipower is a member of WANO and maintains communications with fellow members and actively participates in the association's activities. Each year Taipower representatives attend various training events and seminars and receives delegations from other nuclear plants to assess its operations in the hope that the performance and safety of Taiwan's nuclear power generation remains in synch with worldwide practice.

Electric Power Research Institute, EPRI

Taipower participates in numerous EPRI research projects, which make up a large portion of its external communication expenditures. In 2014, the Department of Generation, Nuclear Safety, System Planning, System Operations, Power Supply, and Business, and the Power Research Institute of Taipower participated in 18 EPRI research projects. Research funding was shared through the EPRI database, which was applied to solve issues and improve efficiency.

Chinese Association for Energy Economics, CAEE

CAEE serves as a crucial platform for energy-related communication and exchange between industry, government, and academia in Taiwan. Taipower currently sits on the board of the Association, and assigns the general manager to the Association, while more than 80 Taipower employees are members of the Association. The Association holds an annual conference with paper presentations and panel discussions that foster the progress of Taiwan's economy, technology, and energy expertise. Furthermore, the CAEE is Taiwan's communication channel to the International Association for Energy Economics (IAEE). Each year Taipower dispatches a delegation to attend the annual IAEE conference to share information and expand cooperation on an international level.

Association of the Electricity Supply Industry of East Asia and Western Pacific, AESIEAP

AESIEAP is a regional power industry organization. Currently, the chairman of Taipower serves as a board member and executive director of the AESIEAP. In order to promote exchanges and cooperation amongst power utilities in the Asia-Pacific, AESIEAP holds the Conference of the Electric Power Supply Industry (CEPSI) every year, and a roundtable-style CEO Conference. The 2014, CEPSI was held in Jeju, South Korea. The chairman of Taipower attended in his capacity of executive director of AESIEAP. He was a VIP guest at the ribbon-cutting ceremony that opened the exhibition. In addition, he gave a presentation at the CEO Roundtable, and participated in the 40th Board Meeting of the Executive Board.

1.1.4 Taipower's Mission and Vision

Taipower Mission

To offer diverse services to satisfy customers' demands, to promote the nation's competitiveness, and to protect the interests of employees and shareholders.

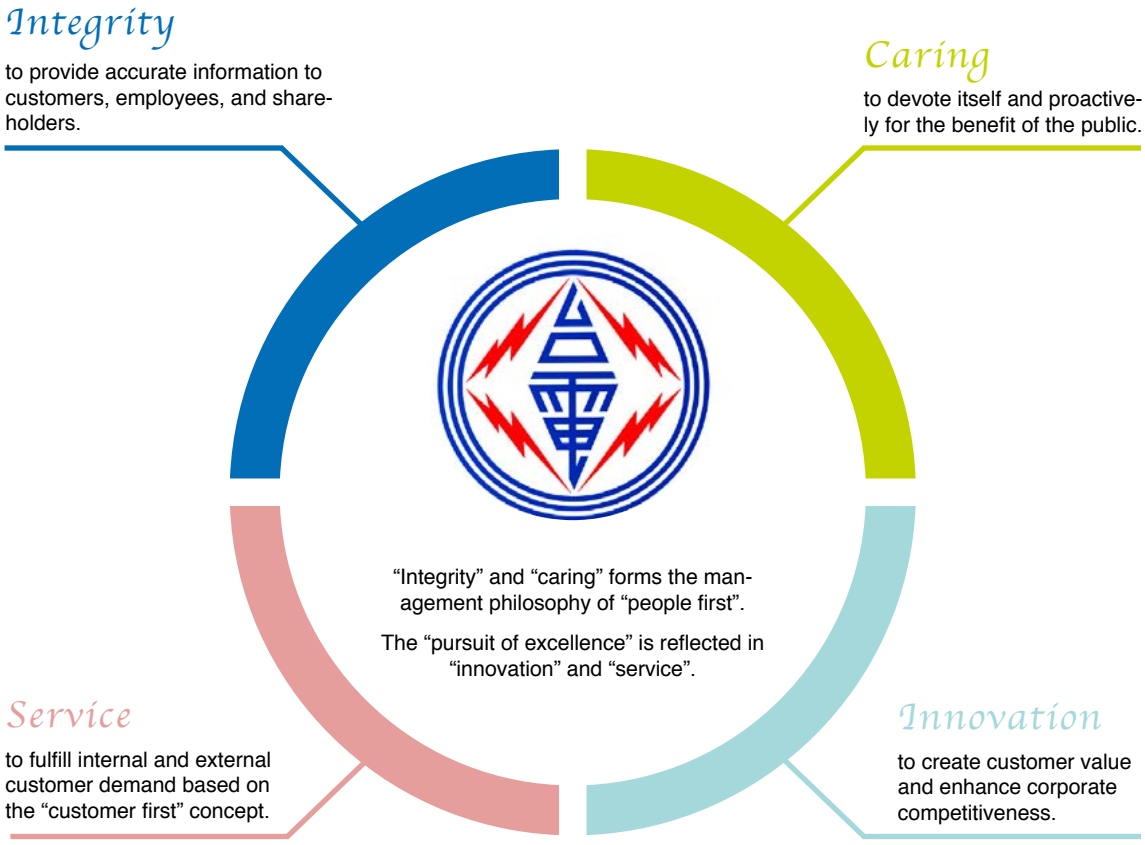
Taipower Vision

To become a prestigious and world-class power utility group.

1.1.5 Management Philosophy and Strategy

◆ Our Management Philosophy

Taipower's corporate culture is "people first" and the "pursuit of excellence".



◆ Five-Pronged Business Strategy

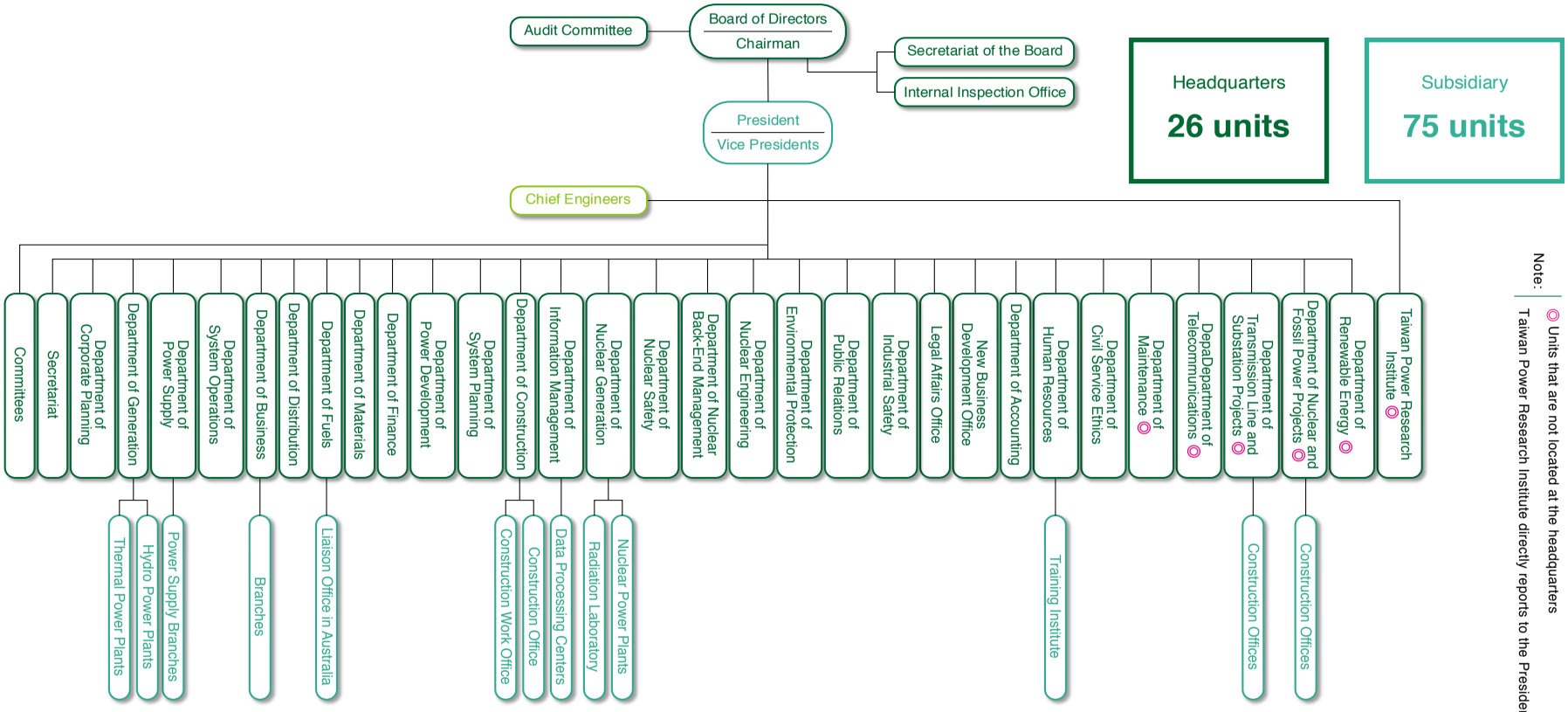
Taipower's overall business strategy is annually reviewed and adjusted in the light of changes in the business environment. In 2014, the five-pronged overall business strategy consisted of "Creating Value", "Reducing Costs", "Fulfilling Social Responsibility", "Improving Customer Service", and "Reengineering the Company". The related measuring indicators, strategies and plans of action have also been established to facilitate planning focus for the future.

1.2 Corporate Governance

1.2.1 Governance Structure

◆ Organizational Structure of Taipower

Taipower consists of 101 units, including 26 units at headquarters, which report directly to the President or Vice-Presidents. The other 75 units are subsidiary units; six of these are under the direct supervision of the President or a Vice-President (marked with ◎). In addition, Taipower has seven committees, which are responsible for driving cross-departmental issues.

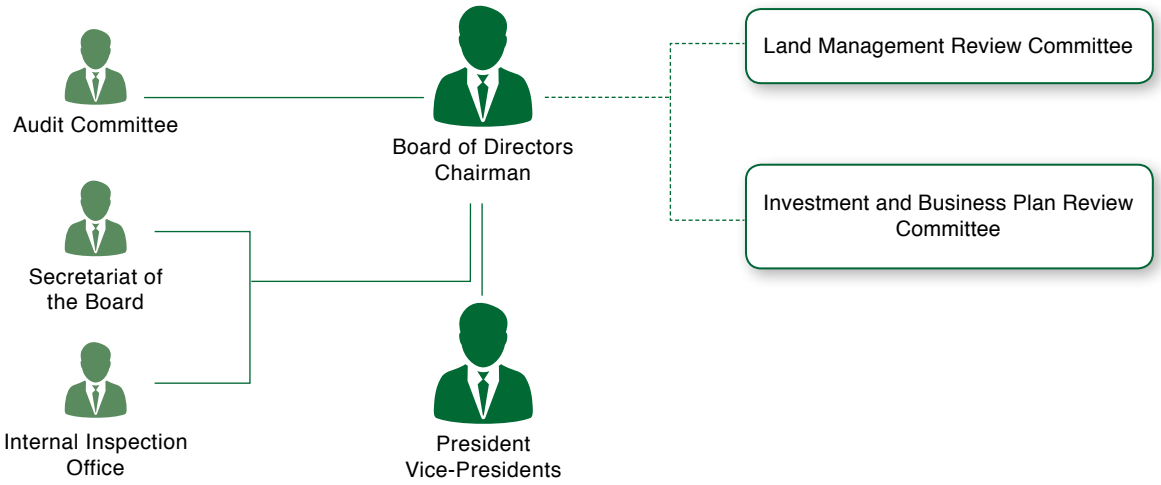


Note: ◎ Units that are not located at the headquarters
Taiwan Power Research Institute directly reports to the President.

Organization of the Board of Directors

According to Taipower regulations, the Board of Directors consists of 15 directors, elected by the shareholders' meeting. In accordance with the provisions of the Securities and Exchange Act, the directors count three independent directors, who make up the Audit Committee. The Board of Directors elects five managing directors, including one independent director, among directors. The terms of Directors (including independent directors and managing directors) are two years, and can be extended with subsequent terms. Thus, the 15 directors of Taipower include five managing directors, three independent directors (one of whom serves as managing director), and three directors representing labor.

The Taipower Board of Directors consists of the following members:



2014 Board of Directors Members

Position	Name	Concurrent Position	Remarks
Board Chairman (Managing Director)	Hwang Jung-Chiou	Chairman of Taipower	Assigned by MOEA
President (Managing Director)	Chu Wen-Chen	President of Taipower	Assigned by MOEA
Managing Director	Chang Tzi-Chin	Deputy Director of the Environmental Protection Agency	Assigned by MOEA
Managing Director	Wu Sou-Shan	Chairman, Gre Tai Securities Market	Assigned by MOEA
Managing Director (Independent Director)	Ma Kai	Economic advisor, Money Weekly; Chief Editor, Economic Daily	Nominated by MOEA
Director (Independent Director)	Tsai Yann-Ching	Professor, Department of Accounting, National Taiwan University	Nominated by MOEA
Director (Independent Director)	Chen Hsin-Hung	Research Fellow, Director of the Second Research Division, Chung-Hua Institution for Economic Research	Nominated by MOEA
Director	Wu Tsai-Yi	President, Taiwan Research Institute	Assigned by MOEA
Director	Ma Hsiao-Kan	Professor, Department of Mechanical Engineering, National Taiwan University	Assigned by MOEA
Director	Lee Min	Professor, Department of Engineering and System Science, National Tsing Hua University	Assigned by MOEA
Director	Lin Chien-Yuan	Professor, Graduate Institute of Building and Planning, National Taiwan University	Assigned by MOEA
Director	Chou Li-Fang (Female)	Professor, Department of Public Finance, National Chengchi University	Assigned by MOEA
Director	Wu Cheng-Tai	Representative, Taipower Labor Union	Labor union representative sent by MOEA
Director	Lin Wan-Fu	Representative, Taipower Labor Union	Labor union representative sent by MOEA
Director	Liu Han-Tong	Representative, Taipower Labor Union	Labor union representative sent by MOEA

Note: "MOEA: Ministry of Economic Affairs, R.O.C.

Enhance the Function and Effectiveness of the Board of Directors

Board of Directors operations

A board meeting is convened once a month. It reviews and discusses matters that management teams must report to the Board under regulations governing management levels' authorities and responsibilities. From January through December the board convened 13 times, with an average attendance rate of 89.23% in 2014.

All decisions of the Board, and the statements of directors are included in the record. All instructions directed by Chairman are tracked.

Board of Directors Project Review Meetings

The BOD has established the Land Review Committee and the Investment and Business Plan Review Committee, reporting important issues to the BOD's Audit Committee in accordance with the Board of Directors & Management-level Authorities & Responsibilities Table, such as acquisition and sale of land, large engineering and investment projects, and operational budgets, and provides suggestions for execution. This greatly enhances the decision-making process of the BOD, while these two meetings serve as an important mechanism to enhance efficiency and performance of the BOD. In 2014, the Land Review Committee be held 12 times, while the Investment and Business Plan Review Committee be held 11 times.

The role of the Independent Directors

In accordance with the provisions of Article 14-5 of the Securities and Exchange Act, the Audit Committee reviews and approves the company's financial reports, adjustments of the internal control system, internal control statements, and disposal of assets, financial loans, and derivative transactions. In accordance with the provisions of Article 14-3 of the Securities and Exchange Act, any objections and reservations are included in the records, and published on the Market Observation Post System (MOPS). In 2014, these regulations were followed, and the independent directors on the audit committee did not raise objections or reservations in the BOD meetings. The average BOD meeting attendance rate of independent directors was 87.18% through the year.

Managing Directors Meetings

The Managing Directors Meeting was held, as the BODs adjourned, to accelerate the issuance of corporate bond, etc. Annually, five Managing Directors Meetings were held.

Audit Committee Meetings

In accordance with its authority given by the provisions of Article 14-5 of the Securities Exchange Act, Taipower held five Audit Committee Meetings in 2014 to review Taipower's financial reports over 2013, appointment and dismissal of internal inspectors, adjustments of the regulations of Taipower's internal inspection system.

Shareholders' Meeting Effectiveness

Taipower held a Shareholders Meeting on 20 June 2014, in accordance with the provisions of the Company Act and Taipower's Articles of Association. Providing 2013 Annual Report, the Audit Committee's 2013 Annual Financial Report, the 2013 Annual Debt Report, the 2012 Closure of Accounts and Loss Compensation report, and the 2014 Partial Adjustments to Real Estate, Facilities, and Equipment Durability Report, and amended the Taipower's Shareholders' Meeting Rulesin the meeting, Taipower earned shareholders's approval.

Disclosing Corporate Governance Information

Information on the organizational structure and operations of the BOD (including the Audit Committee) is released on the Board of Directors section of the Taipower Intranet and the Corporate Governance section of the Taipower website. It is also incorporated in the 2015 Taipower report to the Shareholders meeting, and is disclosed on MOPS.

Mechanism to Avoid Conflict of Interest

The Taipower Board of Directors Meeting Regulations requires that directors must declare the issues on the agenda with conflict of interests in a BOD meeting. A director is barred from joining or even attending the discussion or voting regarding a matter in which he has an interest, and he is not allowed to represent an absent director in such vote.

Remuneration Policy

Taipower is a state-owned enterprise. Hence, the standards for remuneration of its directors (including the chairman) and managers (including the president) are set by the competent authorities, and reported to the shareholders.

1.2.2 Sustainability

Sustainable Development Strategy

Taipower's strategies are divided into short-, medium- and long-term strategies. The medium- to long-term strategies concern future business strategies, and sustainable development strategy is set as part of these future business strategies. The 2014 Future Business Strategy Report covered Taipower's business philosophy, business issues and action programs related to sustainable development, and future scenarios for Taipower's development. The report contains long-term development priorities and action programs. Taipower intends to transform from a power supplier to a high-efficiency power utility operator, a smart grid adopter, a high-quality power service provider, and a practitioner of Corporate Social Responsibility in order to drive the development of a sustainable power utility sector. To realize this scenario, Taipower has set a five-pronged overall business strategy, whose four major aspects and corresponding priorities are shown in the visual below:

Taipower Future Development Paradigm

High-efficiency power utility operator	Smart grid adopter	High-quality power service provider	Practitioner of Corporate Social Responsibility
● Pursue an energy mix with the lowest CO_2 emission, and raise the energy usage rate ● Accelerate the upgrading of power plants ● Adopt high-efficiency power generation equipment and technology ● Ensure safety of fuel supplies, improve procurement performance ● Enhance operational management of hydro and thermal powered power plants ● Raise the operational and safety performance of our nuclear power plants to top quarter of WANO members ● Develop the partnership relations with IPPs in Taiwan	● Become an indispensable power distributor ● Build a smart grid with capabilities for self-monitoring, self-diagnosis, maintenance, and recovery ● Provide value-added service that enables customers to use power in a smart way that reduces CO_2 emissions ● Reduce average blackout time per customer, increase power supply reliability	● Meet different power needs of different customers ● Use different channels to supply and buy back power from customers ● Strengthen demand-side management ● Improve account management, raise customer satisfaction ● Drive our organization's reform in response to the on-going liberalization of the power utility industry	● Focus on corporate governance and corporate ethics ● Expand public welfare activities and co-prosperity with communities around our power plants ● Build a safety culture that fosters initiative, mutual care, and discipline ● Develop greener operations in line with national policies to save energy and reduce CO_2 emissions, and strengthen Taipower policies and society to operate in an environmentally friendly manner ● Strengthen communication with society and public trust, obtain trust and support

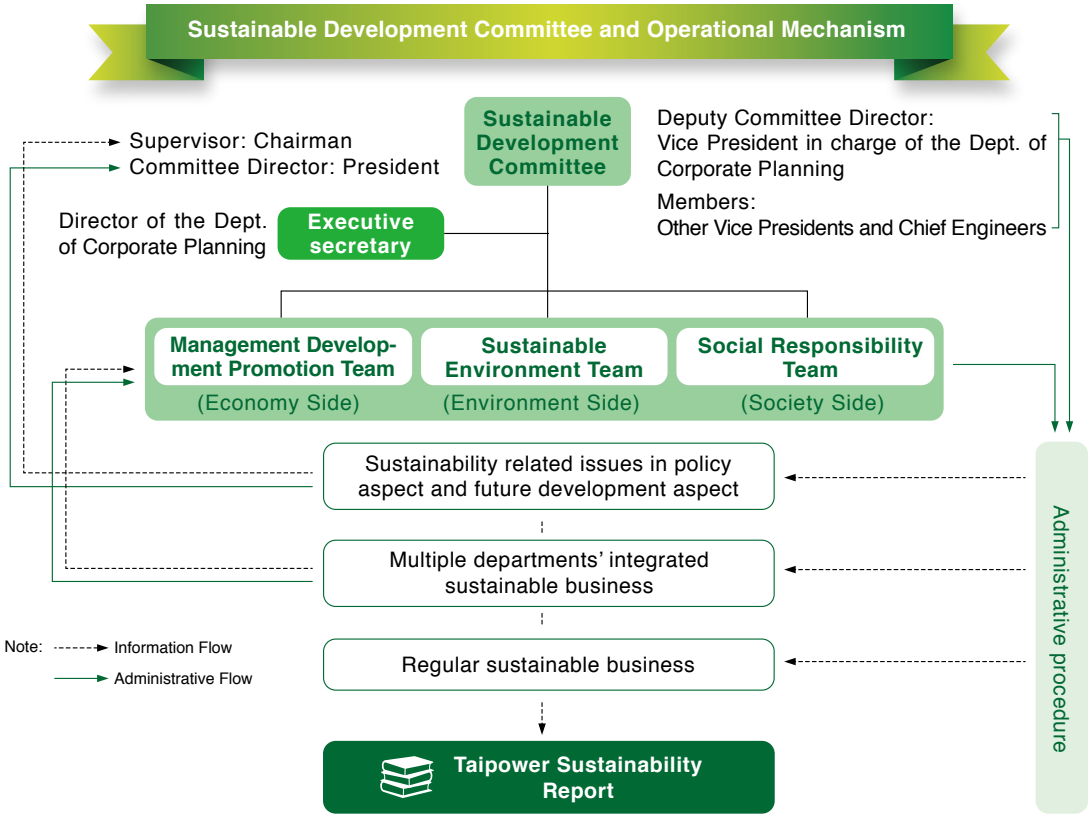
Taipower uses a rolling system to review its Future Business Strategy. By the end of each year the review is submitted to the management meeting for discussion and decisions regarding the direction of its future business structure, which is subsequently discussed in more detail in the Sustainable Development Committee. After the cases under the Future Business Strategy have been discussed and settled in the Sustainable Development Committee, these are presented to the Board of Directors for approval. Next, the Future Business Strategy is presented to the State-Owned Enterprise Commission, MOEA, which will review the strategy in a review meeting. Thus, Taipower's business strategy and sustainable development is created and approved by many internal units and external bodies, from the Board of Directors to the Ministry of Economic Affairs, through a management and control mechanism that takes Taipower's development very seriously.

Sustainable Development Committee

Taipower has a Sustainable Development Committee (SDC) dedicated to continuous implementation of sustainable development programs and activities. The structure of the SDC is based on its main tasks, which include:

- Long-term corporate strategic planning and integrated management improvement.
- Environmental protection and ecological maintenance strategic planning.
- Corporate social responsibility strategic planning and promotion.
- The report on future corporate strategic planning and sustainability.
- Other resolutions and follow-up management and control actions.

The Sustainable Development Committee has a Management Development Promotion Team, a Sustainable Environment Team, and a Social Responsibility Team, each of which is chaired by a department director or a Vice President.



Regarding operating mechanisms, routine business of each team will be conducted by each unit following Taipower's administrative procedures. Holding meetings to discuss the business involving more than one unit, the conveners of the teams involved should realize the conclusion. Key issues concerning corporate strategy and future development should be submitted to the Sustainable Development Committee for consideration. In 2014, this committee be held twice.

Sustainable Development Strategy Management Mechanism

Taipower's Future Business Strategy includes medium- to long-term goals, strategies, action plans, and implementation projects to reach these goals in a carefully managed manner. These goals are monitored and managed by a target system, where Key Performance Indicators (KPIs) are set and used to measure and represent the efficacy of actions taken.

Taipower's reviews quarterly progress made on the KPIs set out to track the implementation of the Future Business Strategy, and call for Conference on Tracking and Reviewing Subsystem Goals as needed, to track, manage, and control KPIs that are not met. Each business unit also converts and integrates these goals and KPIs into its own operating performance indicators. Every quarter and year's end, these KPIs will be referenced to determine bonuses. This way, bonuses are tied to key performance objectives. Please refer to "1.4.1 Key Performance" to see Taipower's achievements and future goals for each KPI.

In summary, Taipower cares deeply about sustainable development and has incorporated this into its Future Business Strategy, which is created and implemented by units throughout the company. The final scores of KPIs are linked to performance scores, and a responsibility center manages and controls actions taken toward the set goals. Taipower is working to build consensus and alignment among its workforce to boost endeavors toward future development and sustainable operations.

1.2.3 Integrity Management

Ethics Code

Personnel

All Taipower employees abide by the Ethics Code for Personnel Resorting under the Ministry of Economic Affairs, the Points of Attention for Staff of the Executive Yuan and its Subordinate Bodies, and other policies, laws, and regulations. Any employee who requires clarification on an ethics issue or has questions regarding a particular case may consult specialists from Taipower's integrity unit, with full protection of their rights and interests.

In addition, Taipower also actively promotes corporate integrity. In its communications with close business partners, Taipower shares opinions on this issue and takes in opinions from others. The company encourages other businesses to take their corporate integrity seriously and clarify their reporting mechanisms for integrity issues.

Procurement personnel

Taipower's procurement personnel must follow the company's Ethical Guidelines for Procurement Personnel, and the Points of Attention for Interaction between Procurement Personnel and other Businesses. Taipower offers frequent training to its procurement personnel to help them perform their duties in compliance with the law, with a clear conscience, in a manner that is fair and honest, as well as in a manner without giving, asking, or expecting any favors. In 2014, Taipower held 13 seminars and one workshop regarding procurement ethics, and urged Legal Affairs Office to offer information and advice. The company stresses fair and public processes to improve procurement efficiency and performance, ensure its quality, and promote the further development of its procurement system.

Internal Control and Inspection System

Taipower promptly adjusts the structure and functioning of its internal control system in response to changes in the law and the environment. To comply with the new Criteria for Establishment of Internal Control Systems by Public Companies amended by the Financial Supervisory Commission, Taipower amended certain provisions of its Internal Control System, its Internal Inspection Implementation Regulations, and its Methods and Processes for Internal Control and Self-Inspection. In addition, Taipower also carried out inspection visits, information security audits, project inspections, and self-inspections. The company also issued a statement on the effectiveness of the internal control system, in its annual report and prospectus. In 2014, Taipower completed inspection visits to 62 of its units, carried out 15 information security audits, and 30 project inspections.

Complaint Mechanism for Unethical or Illegal Conduct

In the event of a breach of ethics or illegal conduct, employees must immediately notify their supervisor. The general public and business partners may use our ethics hotline, email, or contact the ethics officer of the department concerned, to report the case and provide information. The ethics reporting channels are as follows:

Telephone: +886-2-2366-7364
Fax: +886-2-2368-1674
Email: d0570302@taipower.com.tw

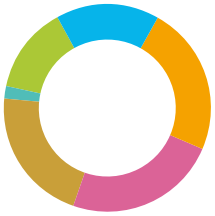
In addition, regarding unethical or illegal conduct related to procurement, Taipower has internal and external reporting mechanisms. The company's tender documents display a notice stating "The tenderer may report any unlawful situation in our company's tender process to the Investigation Bureau of the Ministry of Justice. The Investigation Department (Team, Desk) of the locality of the tender-issuing unit of Taipower is the point of entry of such a report."

Cases Investigated in 2014

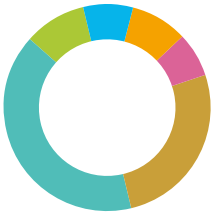
Of the ethical cases reported in 2014 (with name and anonymously), 47.3 percent were admissible, a rather high ratio, perhaps prompted by competing interests, inappropriate handling or insufficient communication by the unit, thereby creating misunderstanding, and leading some people to use the reporting channels as a way to vent their dissatisfaction. In particular, anonymously reported cases frequently involved speculation or unfounded allegations, causing distress to the unit or employee involved. Investigation results showed that the categories 'clarified and closed' and 'retained for investigation' totaled 66.58 percent, indicating that investigation personnel received many false allegations or cases without proven facts. It also showed that the investigation unit had an attitude of "no-one was above the law" and "seeking truth from facts". They conducted investigation no matter whether those employees committed violation or not.

Sources of Corporate Ethics Cases in 2014

Initiative of department of Corporate Ethics	16.3%
Reported for investigation (with name)	23.4%
Reported for investigation (anonymously)	23.9%
Transferred by higher body for investigation	21.1%
Transferred by Chairman for investigation	1.8%
Other	13.5%



Handling of Corporate Ethics Cases in 2014



Criminal investigation	8.04%
Monitoring, study, and administration	8.79%
Transferred to other department for investigation	7.04%
Case clarified and closed	26.13%
Under investigation	40.45%
Forwarded for testing	9.55%

1.2.4 Legal Compliance

Penalized Environmental Incidents

In 2014, there were 23 incidents of violation of environmental protection laws and regulations:

Penalized Unit	Violated Law/Regulation	Incident	Fine (TWD 1,000)
Engineering Unit, North District	Air Pollution Control Act	6	800
Engineering Unit, South District	Air Pollution Control Act	3	300
Engineering Unit, Central District	Air Pollution Control Act, Environmental Impact Assessment Act	2	400
Engineering Unit, North District	Waste Disposal Act	1	6
Taichung Power Plant	Air Pollution Control Act, Environmental Impact Assessment Act	3	500
Jianshan Power Plant	Waste Disposal Act	1	6
Keelung Power Plant	Air Pollution Control Act	2	10
Jiayi Power Plant	Air Pollution Control Act	1	5
Fengshan Power Plant	Waste Disposal Act	1	1.5
Hsinchu Power Plant	Air Pollution Control Act	1	100
Kaohsiung Power Plant	Waste Disposal Act	1	1.5
General Engineering Unit	Air Pollution Control Act	1	100
Total		**23**	**2,230**

Note: In 2015 Taipower established a reporting platform to penalize for violations of environmental laws and regulations and minor irregularities without penalty. The platform tallies and discloses penalized cases and minor, unpenalized irregularities. In the future unpenalized irregularities will also be disclosed.

Taipower has taken the following measures for improvement in response to those being penalized for violations of environmental laws and regulations:

- Set targets for numbers of penalized pollution incidents and penalty for each Taipower subsystem, as a way to manage and control such incidents.
- Provided training on compliance with environmental regulations and investigation.
- Dispatched more personnel from local units to environmental protection seminars and workshops.
- Strengthened inspection, guidance, management, and control related to the ISO 14001 environmental protection standard.
- Unannounced inspection and supervision of environmental protection procedures.
- Improved the rapid-report management and control system for environmental violations, and provided the resolutions.
- If, after improving management, environmental violations still occur, the managing unit must swiftly improve its practice to comply with regulations.
- In contractor selection, bidders' environmental protection capacities should be taken into consideration.

Measures Against Corruption

Taipower is a state-owned enterprise under the Ministry of Economic Affairs. Its employees are therefore bound by the Ethics Code for Personnel Resorting under the Ministry of Economic Affairs, the Points of Attention for of the Staff of the Executive Yuan and its Subordinate Bodies, and other policies, laws, and regulations. Offering, giving, receiving, or expecting banquet invitations, monetary gifts, or favors from or to stakeholders must follow the law and report to the ethics commission. In addition, to ensure the impartiality of procurement, contractors must abide by the Ethics Standards for Buyers and the points of Attention for Interactions between Procurement Personnel and Companies to strengthen a sound procurement system.

To highlight the company's commitment to crack down on corruption, Taipower's President Dr.Chu reinforced through his signing a declaration from the Ethics Center, which read "Uphold honesty, reject corruption." In 2014, a total of 24,645 people, or 90 percent of Taipower employees, signed to express their attitude of solidarity, integrity, honesty, and impartiality in their duties.

In 2014 Taipower had no incidents involving corruption that violated laws and regulations.

Product Responsibility

Taipower's main product is electricity. Electricity prices follow relevant government laws and regulations and policy directives. Additionally, Taipower handles customer information and arrears of electricity payments and suspension of electricity supply in accordance with the Personal Data Protection Act and the Electricity Act.

Staff are instructed and supervised to follow these laws and regulations to prevent branch people from unintentionally leaking customer information, for the privacy and comfort of the general public.

In 2014, Taipower had no customer information leaking violation.

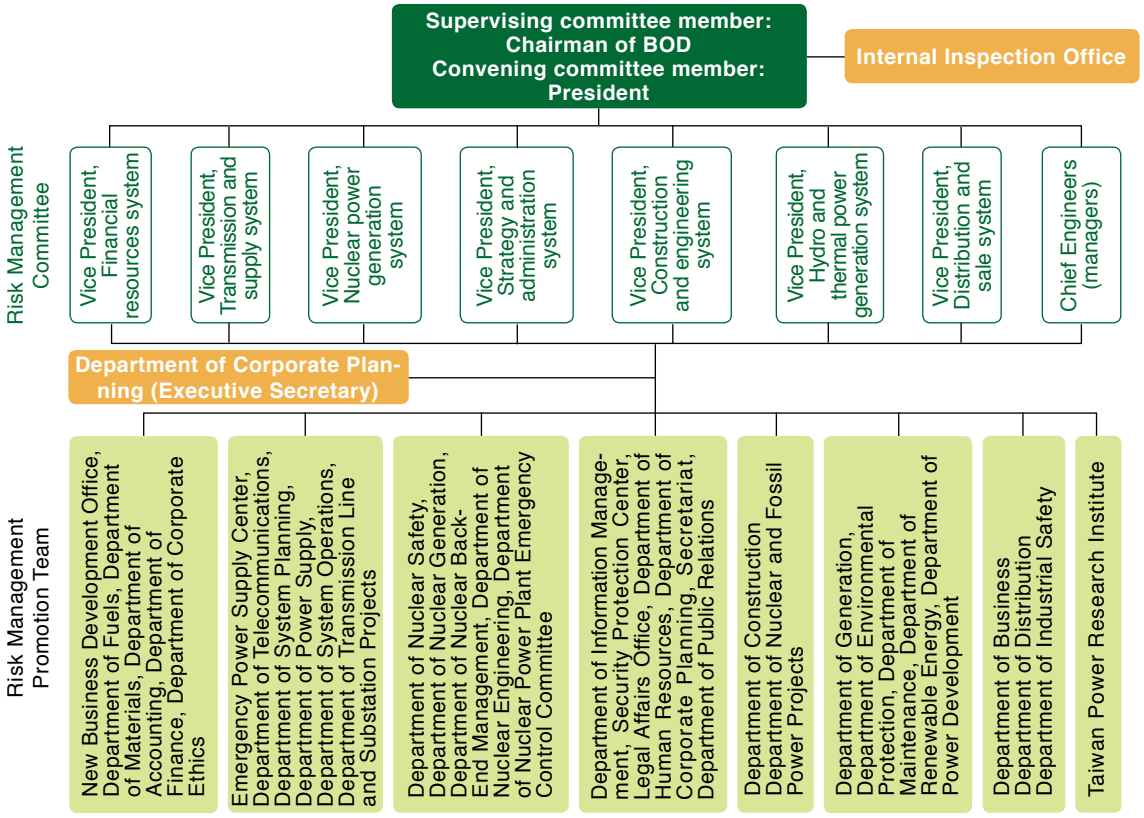
1.2.5 Risk Management

Complying with fast changes, Taipower has established a task-force-style Risk Management Committee, which reviews and revises annually, as needed, the company's risk management policies.

Taipower's Risk Management Strategy

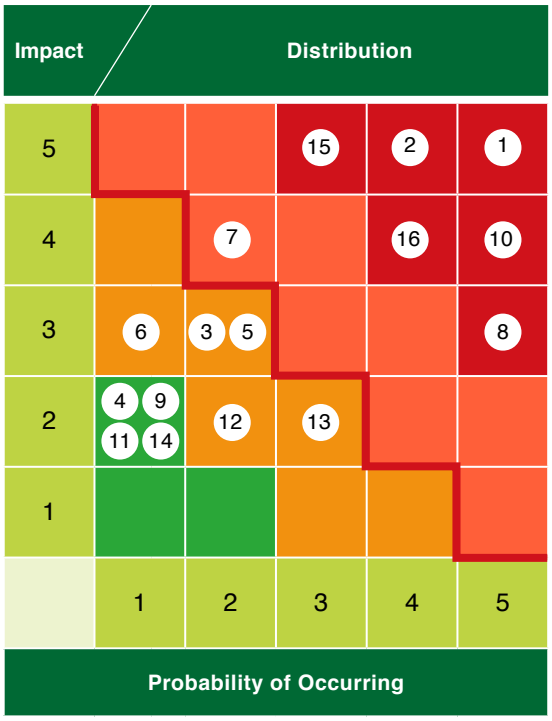
1. Providing the necessary resources to establish, maintain and continually improve the effective functioning of the risk management system and to reduce operational risks
2. Promoting risk management organization and implementation of risk assessment, risk management, risk monitoring and risk communication
3. Ensuring that employees have the ability to perform risk management, create a supportive work environment, and shape a risk management culture
4. Strengthening communication between staff and stakeholders, raising staff awareness of risk management, and thoroughly implementing related policies

Taipower Risk Management Promotion Team



The Risk Management Promotion Team, under the Risk Management Committee, identified risks into long- (5 years or later), medium- (during the next 3-5 years), and short-term (within 1-3 years), as well as analyzed, assessed, and handled the possible risks. Among them, the short-term risks include the company's annual risk management and control cycle for scenario planning; the medium-term and long-term risks include the company's Future Business Strategy and the Sustainable Development Committee.

In 2014, Taipower encountered 16 risk events labeled "Power shortages affecting system stability and security," which required intervention. Compared with risk events identified in 2013, two new risk events materialized in 2014: "Personnel corruption" and "Disputes arising from the electricity price adjustment mechanism." The extra high and high risk events were the same as those in 2013, including "Operational loss from increased fuel cost insufficiently reflected in electricity prices" and six other risk events, which were handled with priority through countermeasures. Risk events below the (black) tolerance line included "Power shortages affecting system stability and security" and eight other risk events, which are continuously monitored by the units in charge to reduce the incidents and impact of these potential risk events.



Remarks: 1. Red line in bold represents the risk tolerance line.
2. Definition of Colors Very High High Medium Low

	Risk Items
1.	The tariff adjustments failed to reflect the full rise in fuel costs, leading to operating losses
2.	Power construction impeded
3.	Aging workforce structure prevents the passing on of technology
4.	The occurrence of the corruption with event staff
5.	Power supply reliability and safety
6.	Release of radioactive materials from nuclear power plants caused by natural disasters
7.	Delays of interim fuel storage facilities for spent nuclear fuel.
8.	Accidents related to employee safety and health
9.	Environmental events having an adverse impact on company image
10.	Lungmen construction failed to meet quality and budget on time
11.	Hacking of the information system
12.	The outbreak of labor-management disputes and employees' protests
13.	Damage to power equipment caused by natural disasters
14.	Lack of operational wind farms
15.	Dispute on Lungmen Nuclear Power Plant
16.	Tariff adjustment mechanism controversy

Risk Item	Risk Scenario	Control Measure
Losses caused by failure of the tariff rate to reflect the rising fuel costs	1. Operating loss, failed to gain reasonable profits, debt ratio close to 92%, financial depreciation, accumulated losses exceeded company's capital by half 2. Huge capital needed for power construction but self-owned capital insufficient 3. Imbalanced international coal supply market causes the volatile prices. 4. Rising oil price also causes natural gas price to surge.	1. Through management and control of operation to improve business performance and reduce overall operating cost. 2. Control project schedules and budgets. 3. Set uniform supply caps for suppliers to control the risks of distributed supply. 4. Consolidate fuel-oil demands of all power plants for collective procurement at more competitive prices and incentives.
Power shortages affecting system stability and security	1. Large power plants cannot generate electricity. 2. North-South EHV transmission mains are disrupted. 3. Electricity distribution equipment in science park(s) fails and causes power outages. 4. Rising oil price also causes natural gas price to surge.	1. Hold scheduled simulation exercises to practice scenarios where for large power plants cannot generate power. 2. Hold communication drills, safe operation and dynamic exercises, and take preventive measures. 3. Realize existing mechanisms to strengthen the maintenance and inspection equipment in science parks. 4. Fuel-diesel power plants maintain safe operational inventory levels.
Release of radioactive materials from nuclear power plants caused by natural disasters	1. Water injection ability affected by damaged power equipment. 2. Removal of residual heat affected by the loss of final heat sink. 3. Reactor core cooling affected by the loss of water supply to the reactor.	1. Construct dykes and reinforced-concrete retaining walls, and water-tight tsunami-proof constructions. 2. Purchase and set up sprinkling systems, connect to firefighting water tanks to provide sprinkling function for fuel pool cooling. 3. Improve long-term cooling and recovery equipment with water resistance.
Damage to power equipment caused by natural disasters	Damage to transmission equipment caused by natural disasters.	1. Implement report drills, safety procedures or dynamic drills and preventive management measures. 2. Improve disaster report correspondence, and propose disaster report simulation drills. 3. Prevent reservoir silting, remove sediment and protect catchment areas in accordance with the government's water resource policy to ensure sustainability. 4. Conduct typhoon-prevention preparation work annually for thermal plants, pre-check before the typhoon season each year, and proceed non-periodically check.

1.3 Identification of Stakeholders and Key Sustainability Issues

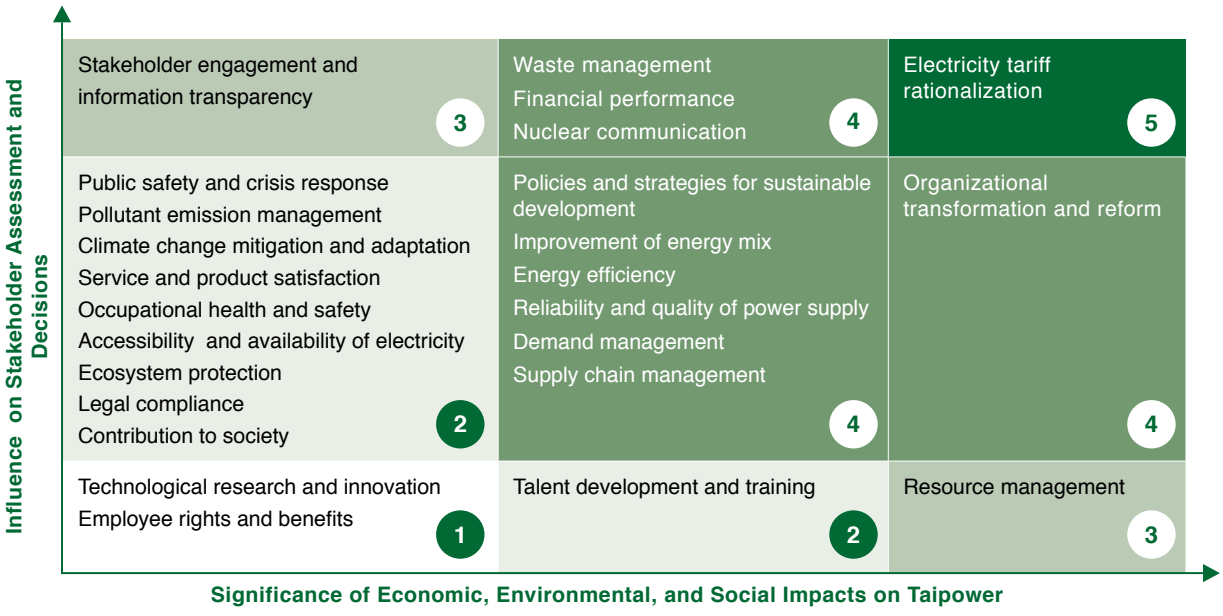
1.3.1 Identification of Stakeholders

Taipower is a large organization consisting of many different business units. The character of each business unit is different from each other; therefore, we conducted a survey to identify the different groups of stakeholders of the Company's thirty-four business units in accordance with the five principles outlined in the "AA1000 Stakeholder Engagement Standards (2011)". They are:

Stakeholder (Group)	Party
Government/ Competent authority	Ministry of Economic Affairs, State-Owned Enterprise Commission, Environmental Protection Department, Legislative Yuan, Atomic Energy Council, local government agencies
Employees	Employees, union
Residents/ general public	Surrounding community residents, general public
Partners	Contractor, IPP service provider, supplier, technology exchange partners
People's representatives	Legislator, village/township elected representatives
Shareholders	All shareholders
Media	Electronic and print
Board of Directors	Directors
Private organizations	Environmental conversation groups, enterprise association, academic organizations
Customers	General and large customers

1.3.2 Identification of Key Sustainability Issues

To identify issues of materiality, Taipower referred to management issues and employee opinions, as well as issues of concern to the international utility industry, international trends in sustainable development, and the G4 Guidelines and the G4 Sector Disclosure Guidelines for Electric Utilities from the Global Reporting Institute (GRI). This has yielded a total of 25 issues. Through questionnaires, these 25 issues were rated by Taipower employees for their impact (financial/non-financial, strategic importance, and opportunity/competitiveness) and by other stakeholder groups for their influence on decision-making (significance, expected responses and action, expected transparency). Finally, senior management looked at these as well, and the outcome of the entire process is presented in a materiality matrix reproduced below.



This report presents 13 material issues and 5 additional non-material issues in accordance with the G4 Guidelines of GRI. The aspects and boundaries of these issues, as well as their corresponding sections in this report, are as follows:

Materiality	Issue	Boundary				Corresponding G4 Aspect	Corresponding Chapter and Section in this Report
		Internal	External				
		Taipower	Suppliers	Customer	Communities and environment		
Material issues	Electricity tariff rationalization	V		V		Economic: Indirect Economic Impacts	2.2 Promoting Tariff Rationalization
	Organizational reform	V				Taipower-specific issues that do not correspond directly to G4 Aspects	6. Reengineering the Company
	Waste treatment	V			V	Environmental: Effluents and Waste	4.1 Creating a Sustainable Environment
	Financial performance	V				Economic: Economic Performance	2. Creating Value 3.1 Raising Procurement Performance 3.2 Raising Power Generation Efficiency
	Nuclear communication	V		V	V	Economic: Plant Decommissioning Environmental: Effluents and Waste Social: Disaster/Emergency Planning and Response	4.4 Enhancing Nuclear Communication
	Policies and strategies for sustainable development	V	V		V	Standard Disclosures: Governance	1.2 Corporate Governance
	Improvement of energy mix	V	V			Economic: Indirect Economic Impacts, Availability and Reliability Social: Access	5.1 Enhancing Reliability of Power Supply
	Energy efficiency	V			V	Environmental: Energy, Emissions	3.2 Raising Power Generation Efficiency 4.1 Creating a Sustainable Environment
	Reliability and quality of power supply	V	V			Economic: Indirect Economic Impacts, Availability and Reliability Social : Access	5.1 Enhancing Reliability of Power Supply
	Demand management	V		V		Economic: Demand Management Environmental: Energy, Products and Services	3.3 Demand Management
	Supply chain management	V	V			Economic: Procurement Practices Environmental: Supplier Environmental Assessments Labor Practices and Decent Work: Supplier Assessment for Labor Practices Human Rights: Supplier Human Rights Assessment	4.3 Supplier Management

Materiality	Issue	Boundary				Corresponding G4 Aspect	Corresponding Chapter and Section in this Report
		Internal	External				
		Taipower	Suppliers	Customer	Communities and environment		
Material issues	Resource management	V			V	Environmental: Water, Overall, Energy , Materials	4.1 Creating a Sustainable Environment
	Stakeholder engagement and information transparency	V	V	V	V	Standard Disclosures: Stakeholder Engagement Environmental: Environmental Grievance Mechanisms Labor Practices and Decent Work: Labor Practices Grievance Mechanisms Human Rights: Human Rights Grievance Mechanisms Social: Local Communities, Grievance Mechanisms for Impacts on Society, Provision of Information	1.3 Identification of Stakeholders and Key Sustainability Issues 4.1 Creating a Sustainable Environment 4.5 Strengthening Stakeholder Engagement and Information Transparency 5.2 Strengthening Customer Communication
	Public safety and crisis response	V		V	V	Social: Disaster/Emergency Planning and Response	4.4 Enhancing Nuclear Communication 5.1 Enhancing Reliability of Power Supply
	Climate change mitigation and adaptation	V	V		V	Environmental: Energy , Emissions	4.1 Creating a Sustainable Environment
	Service and product satisfaction	V		V		Social: Provision of Information	4.5 Strengthening Stakeholder Engagement and Information Transparency 5.2 Strengthening Customer Communication
	Accessibility and availability of electricity	V		V		Economic: Indirect Economic Impacts, Availability and Reliability Social: Access	5.1 Enhancing Reliability of Power Supply
	Legal compliance	V				Environmental, Social , Product Responsibility: Compliance	1.2 Corporate Governance

1.3.3 Responding to Material issues

Material Issue	Commitment	Result in 2014
Electricity tariff Rationalization	Eliminate policy tasks, promote rationalization of electricity tariffs, and establish an adjustment mechanism reflecting cost	● In July 2014 a conference was held on the topic of "Cooperation after government policy-based preferential electricity tariffs were incorporated in the budgets of various ministries and commissions." Most ministries and commissions agreed in principle to take on the difference between the preferential tariffs and the new tariffs in their budgets. In 2014 the Ministry of Economic Affairs announced it would offer a TWD 537 million subsidy toward the losses from power supply to the islands. ● Taipower prepared and issued a "Revised proposal for an electricity tariff schedule." The proposal was presented to the Legislative Yuan, where it was passed on 20 January 2014.
Organizational transformation and reform	Instill cost awareness in all departments and increase competitiveness	Promote segregation of duties of the internal network of plants and undertake enterprise planning.
	Assist the government in creating a fair competing field and a sound system of oversight	Participate in various conferences related to Electricity Act amendment organized by the Ministry of Economic Affairs.
	To complete business plan before the end of 2015 enables Taipower to implement as of January 2016, and establish business divisions for hydro and thermal power generation, nuclear power generation, power transmission and supply, and power distribution and sales.	● By June 2014 Taipower had established and amended on schedule the Systems of Strategy and administration, Financial resources, Hydro and thermal generation, Construction and engineering, Nuclear generation, Transmission, Distribution, and the Taiwan Power Research Institute (31 departments). ● Taipower has held ten conferences to discuss and finalize detailed project plans and internal communication materials for the establishment of the four business divisions. ● From July through October, over 80 project meetings were held to promote business division.
Waste management	Reduce the environmental impact through recycling, and reuse in accordance with environmental laws and regulations	● Ash to the amount of TWD 254 million was sold, achieving an 89.2% reuse rate. 222, 000 tons of ashes were used in landfill engineering and land reclamation. ● 629,000 tons of gypsum was produced, achieving a utilization rate of 100.7%. ● 168,373 tons of rainwater was recycled. 1,571,953 tons of waste water processed, and filtered water was recycled. ● Kitchen refuse was used to produce environmentally friendly enzymes. On 21 August 2014, the company held a training to promote environmentally friendly enzymes and train trainers in order to spread environmental awareness through the company and into employees' daily lives.
Financial performance	● Reduce cost of procurement ● Align with authorities and achieve targets	● Cost down plus revenue reached TWD 12.7 billion. Investments were reduced/delayed to TWD 67.17 billion. ● Fuel inventory levels were reduced by TWD 1.51 billion. ● Material procurement savings of TWD 611 million were achieved. ● Fuel procurement savings of TWD 9.011 billion were achieved. ● Power procurement rates with nine IPPs were renegotiated, reducing cost with TWD 1.713 billion.
	Enhance funding planning and management of financial risks to reduce the capital cost	● The average interest rates for long and short term lending were reduced from 1.55% to 0.83%, and total interest payments were TWD 15.7 billion, which was TWD 5.69 billion lower than the allotted budget. ● Expenditures from corporate bonds were TWD 497 million, down from TWD 679 million in 2013, a saving of TWD 182 million.

Material Issue	Commitment	Result in 2014
Financial performance	• Follow development in high-efficiency generators and market liberalization, and apply findings in energy sources development plans • Actively promote generator renewal and upgrade to raise generation efficiency • Continue optimizing the efficiency of power operations	• A feasibility study for the 'Datan Power Plant Additional Natural Gas Combined Cycle Unit' was completed, and a short-term LHV Gross efficiency rate of 62.07% was set. • The net volume of nuclear power reached 40.8 billion kWh and the utilization rate reached 93.75%, setting two historical records. • The first-stage 'medium upgrade' of generators 1 and 2 of Nuclear Plant No. 2 was completed, which raised their power generation efficiencies by 0.7% and 0.82%, respectively. From 2006 through 2014, their efficiency gains accumulated to a total of 210 MW, with annual gains of approximately 1.6 TWh.

Nuclear communication	• Strengthen the safety of nuclear power generation, and improve operational efficiency to raise the public's trust in nuclear safety
	• Continue to conduct nuclear safety drills, improve the capacity to cope with compound disasters
	• Engage in dialogue with the public regarding nuclear issues
		• The three operating nuclear power plants have proposed 96 initiatives to enhance nuclear energy safety in response to the Stage 1 nuclear safety & health check conducted by the Atomic Energy Council, of which 95 initiatives were completed in 2014.
		• Evaluate and improve the tolerances of nuclear power plants during earthquakes.
		• The generators' operating procedures were amended, including additional conditions for starting the reactors, construction of sophisticated power sources / water sources / heat sinks, and emergency relief in the event of reactor pressure collapse and element exhaust.
		• Compound disaster prevention drills and three nuclear safety drills were conducted in 2014.
		• Nuclear power supply reached 40,801 GWh, while the average capacity factor was 93.75%. Carbon emission were reduced by 34.23 million tonnes.
		• In line with government policies, Nuclear Power Plant No. 4 was sealed, and public dialogue on diversified nuclear was pursued.
		  ▪ All nuclear power plants held activities for their surrounding communities to educate residents on nuclear safety and promote acceptance the nuclear power plants in their vicinity.
		  ▪ Personnel were dispatched to all cities and counties to educate the public on nuclear safety. In 2014, 288 such events were held.
		  ▪ Staff of nuclear power plant offer volunteer after-school tutoring support to disadvantaged students. The interaction and bonding between students and coaches helped improve the image of Taipower and the acceptance of nuclear energy.
		  ▪ A "Group for local communication seeds and mothers" and a "Volunteer group for mothers and fun" were formed. The groups participated in community activities of various organizations, where they educated the public about nuclear safety in a friendly and informal manner.
		  ▪ The general public and students were invited into nuclear power plants and the exhibition centers in the north and the south. Guided tours and movie screenings ("Seeing Lungmen, feeling safe") communicated Taipower's commitment to safe nuclear energy. In 2014, the Taipower Exhibit Center in Northern Taiwan attracted 47,865 visitors, while the center in the south received 269,672 visitors.
		  ▪ The Taipower Nuclear Energy website was updated and continued to provide full disclosure on nuclear energy to make the general public understand the effectiveness and current status of nuclear safety. The site offers real-time information on the operations of the nuclear power plants and radiation data of their surroundings.
		  ▪ In 2014, a communication project on nuclear waste was implemented, through cards, FAQs, printed materials, and educational movies to publicize the "Nuclear fuel final disposal project" and the "Nuclear fuel dry storage project".

Material Issue	Commitment	Result in 2014
Policies and strategies for sustainable development	Continue to promote the sustainable development of the power utility industry, in balance with energy safety, economic development, and environmental protection	● The 'Taipower future business strategy' plan was completed, the company's compass for its sustainable development. ● Each quarter, a "Conference on Tracking and Review of Subsystem Goals" was held to evaluate completion scores of KPIs and to strengthen monitoring but control of goals has not yet achieved. ● The "Points of attention for the composition of the Taipower Sustainable development Committee" was amended to improve its functioning.
Improvement of energy mix	● Provide sufficient energy sources and balance regional power demand and supply. ● Expand its use of renewable energy, in line with government policy.	● Taipower developed a long-term power source development plan, which maps power demand and supply trends at home and abroad, as well as emerging power generation technologies. The company completed the 'Taipower long-term power source development plan 2014' as a reference for its operational strategy. ● The company continued its projects to expand power generation from renewable sources. ■ Stage 4 Wind Power: At the Luzhu Wind Park eight new wind turbines were installed, taking to total installed capacity to 72 MW, with grid-tied safety scheduling done in November 2014. The work was completed in June 2015. ■ Stage 1 Solar Energy: Photovoltaic power generation at Taichung Longjing (II). Total installed capacity reached 27 MW. The work was completed in April 2015. ● External purchase of electricity, improve the power structure: ■ Independent Power Plant (IPP): By the end of 2014, Taipower has signed a purchase and sale of electricity contracts and effective implementation of the private power plants totaling 9, with an available capacity of 7,652.1 MW. ■ Cogeneration: to the end of 2014, the signing of wholesale gasoline and electric power industry meter 54, the total installed capacity of 5,871.2 MW, peak guarantee capacity 2,065.3 MW.
Energy efficiency	Implement the 'Taipower Master Plan on Energy Conservation and Carbon Reduction' in line with the government's goals for the reduction of greenhouse gasses	● The preliminary project plans for greenhouse gas emission reduction of the Taichung and Xingda power plants (0.724 million tons) were approved by the Environmental Protection Agency. ● One swap case was approved by the Environmental Protection Agency. The project is expected to reduce emissions by 526,000 tons).
Reliability and quality of power supply	Improve the reliability and safety of the power supply system, to offer high-quality power to customers	● Two exercises were held to simulate risks to the stability and safety of the power supply system in the event of a shortage, which has enhanced operation and maintenance personnel's emergency response capabilities. ● The company formulated points of attention for the dispatch of duty personnel for power supply area operations, and established a license system for duty personnel. This has improved the quality power supply and the internal transfer of core technology. ● Average power interruption time was 17.496 (minutes / customer·years), a new record. The average interruption frequency stood at 0.264 (times / customer·years), better than the target. ● The system-wide line loss rate was 4.09%, down from 4.25% in 2013. This 0.16% reduction was another record for the company. ● The digitization of the protection relays of the transmission system reached 80%.

Material Issue	Commitment	Result in 2014
Reliability and quality of power supply	Continue to upgrade technologies to provide high-quality power to customers	● The approval process for new facilities under a certain volume was simplified, reducing the process by 18 working days. ● Taipower was placed second in a World Bank ranking of corporate environmental reports in 2015.
	Strengthen the safety of energy supply, ensure stable supply of power generation fuels	The safety and stability of fuel supply was further strengthened. Inventory levels of all plants and stations reached safety levels.
Demand management	● Assist customers with power management, reduce their demand fluctuations, as well as save energy and reduce emissions ● To build a high-quality, high-efficiency, and environmentally-friendly smart grid to help create a low-carbon society and a sustainable environment	● In 2014, the system's peak—off-peak spread was 4.57 GW, accounting for 13.1% of the system's peak load of 34.82 GW. This helped balance the system's load and relieve pressure from peak demand. ● New energy-saving incentives were introduced on 1 August 2014, offering an electricity price reduction of TWD 0.6 per KWh for energy-saving customers, with the minimum incentive set at TWD 84 (TWD 100 for disabled customers). ● The "Online service portal for high-voltage customers" was opened to offer these customers insight into their past electricity usage and applicable tariffs, through charts and analyses of their monthly, weekly, and daily electricity consumption, explanations of demand-responsive load management, sample calculations, etc. ● The company completed an assessment report on the first 10,000 smart meters installed with low-voltage users, and presented the report at the "Expert Meeting on the Assessment Results of AMI Smart Meters Installed with 10,000 Low-Voltage Users", organized by the Bureau of Energy, Ministry of Economic Affairs. ● The comprehensive test of the 10,000 AMI smart meters with low-voltage users and a functionality test of the service website for AMI meter users were in progress over 2014. As soon as both have been completed, the service website will be made available to AMI meter users.
Supply chain management	Ensure supply quality, build relations for sustainable growth	● Manufacture the ability to effectively carry out evaluation; 2014 fuel purchasing new three vendors in the list, the other to remove the original list in the two firms. ● Really performing their procurement-related laws and regulations, such as the employment of physical and mental disabilities and indigenous persons, through the establishment of a list of qualified vendors.
Resource management	Save water, electricity, fuel, reduce environmental impact	● In 2014, the water consumption of thermal power plants was 91.6 tons / GWh, lower than the target of 93.9 tons / GWh. ● The water foot prints of thermal, hydro, and nuclear power plants continued to be tracked. In 2014, the power plants at Datan and Taichung had their water foot prints assessed, for which they received certification. ● All Taipower departments worked to reduce their energy consumption to reach the targets set in the "Four Savings Project for Government Agencies and Educational Institutions" (regarding electricity, fuel, water, paper). Taipower's measures and results in saving water, electricity, and fuel are presented in Section 4.1.3. ● The ISO14001 environmental management system remained in force. In 2014 scope of management and verification extended to 31 departments.
Stakeholder engagement and information transparency	Strengthen communications with the media, to prevent the spread of misinformation and misperceptions	● Taipower continued its media outreach on the issues of social concern such as nuclear energy and electricity prices through press releases and interviews with senior management. ● The company issued press releases and offered interviews on such topics as a new record in power supply, and the recovery of power supply and infrastructure after Tyhpoon Matmo, both in July 2014. ● In 2014, ten media interviews and roundtables were held.

Material Issue	Commitment	Result in 2014
Stakeholder engagement and information transparency	Provide transparent and correct information from an expert position and responsible attitude	● The Taipower website was regularly maintained and updated: ■ A spokesperson system was introduced. Press releases were published at set times to inform the media and the public. ■ In the company's online annual report, an "Information Disclosure Section" was set up to publish operating information. Also, a separate sustainable development website was built, which dedicated to information on this topic. ■ The Corporate Governance 'Section'' of the Taipower website discloses information on financial affairs and corporate governance. ■ Taipower Internet TV publicized many public welfare events of Taipower. ● Transparent and correct information was provided to lawmakers, as reference for policy reviews and debates on legislative proposals. Topics in 2014 included: ■ Electricity price reduction program: Price reductions of TWD 800 per household were smoothly distributed, for a total amount of TWD 9.4 billion. Parliament and society praised this win-win situation. ■ Tariff rate formula: The new electricity tariff schedule was smoothly passed. Its frequency of adjustments (twice a year) and profit margin were within the acceptable range of the executive branch. ■ Amendments to the Electricity Act: Amendments to Act has an impact public on well-being and the company's sustainable development. After many discussions with Taipower and with parliament, issues related to the proposed amendments weren't clarified, and consensus could not be reached. Therefore, the amendments were not passed. ■ Legislative proposals related to nuclear energy: A nuclear-free homeland is the ultimate goal, but this must be achieved in a stable manner. After discussions in parliament, the nuclear energy legislation was stalled in parliament to allow for further discussion in society. ■ The Kaohsiung gas explosion: Taipower communicated frequently with the Legislators from the area of the Kaohsiung gas explosion, clarifying the repair approach and progress of the repair works, which was commended by the public as well as legislators.
	Continue to implement and publicize energy-saving measures, in line with government policies to save energy and reduce carbon emissions	● Taipower held many activities on saving electricity and effective use of household appliances. In 2014, the company organized 1,368 events that were attended by about 295,000 people. ● Taipower visited users of more than 100 kW to advise them on using their equipment efficiently and saving electricity, and raising their awareness on the importance of saving energy. In 2014, the company visited 5,072 of such large customers.
	● Timely meet customer needs, protect their rights and interests, as well as provide swift and user-friendly service ● Build channels of direct communication with customers and maintain positive interaction	● The area of Taiwan, Penghu, Kinmen and Matsu has 24 district offices and 278 service stations, which together form a complete and dense service network. In 2014 these continued to offer administrative, payment, and repair services. ● In 2014, Taipower service personnel made 74,683 service and repair visits. It made 159 visits to nationwide industry associations to provide services. ● On 4 December 2014, Taipower hosted the "Taiwan Electricity Engineering Industry Association Symposium" to discuss issues in power supply, raise service quality, and promote the safe use of electrical power.

1.4 2014 Performance

1.4.1 Key Performance

◆ Key Management Performance Indicators

The Sustainable Development Committee of Taipower identifies five aspects of its business strategy. This year the committee established Key Performance Indicators (KPIs) and corresponding targets to measure progress on these aspects quarterly. At set intervals, the president convenes a "Conference on Tracking and Review of Subsystem Goals" to evaluate KPIs and to strengthen monitoring and control of goals not yet achieved.

In 2014, Taipower added six new KPIs, four of which was related to one of the business strategies, "Improving Customer Service". Progress related to Taipower's organizational transformation and reform is discussed in the chapter "Reengineering the Company" of this report.

Dimension	Key Performance Indicator	2013 Actual	2014 Target	2014 Actual	Accomplishment	2015 Target
Creating Value	1. Pre-tax Income (TWD 100 million)	-175.43	≧ -96.38	141.47	☺	≧ 150
	2. Renewable					
	2.1. Hydro (excluding pumped storage) (100 GWh)	45.391	≧ 39.383	36.012	☹	≧ 42.325
	2.2. Wind Power (100 GWh)	7.478	≧ 8.401	7.065	☹	≧ 8.8
	3. Profits through Assets Revitalization					
	3.1. Revenue					
	3.1.1. Rental Income and Wall Advertising (TWD 100 million)	1.90	≧ 2.16	2.21	☺	≧ 2.26
	3.1.2. Income from Land Surface Rights Royalties (TWD 100 million)	13.00	≧ 21	0	☹	≧ 21
Reducing Costs	4. Fuel Procurement Performance					
	4.1. Coal Procurement Performance (%)	-9.38	≦ -6.65	-7.71	☺	≦ -6.65
	4.2. Reducing Coal Inventory (No. of Days)	34	30~36	34	☺	30~34
	4.3. Cost Reduction of Construction Materials Procurement (TWD 100 million)	7.72	≧ 5.5	6.11	☺	≧ 5
	4.4. Reducing materials Inventory (TWD 100 million)	5.98	≧ 3.5	7.56	☺	≧ 3.5
	5. Improving Unit Operation Performance					
	5.1. Improving Thermal Plant Operation Performance					
	5.1.1. Heat Consumption for Coal-Fired Units (kcal./kWh)	2,408	≦ 2,406	2,404	☺	≦ 2,395
	5.1.2. Heat Consumption for Fuel Combined Cycle Units (kcal./kWh)	1,921	≦ 1,941	1,919	☺	≦ 1,933
	5.1.3. Heat Consumption for Thermal Units (kcal./kWh)	2,223	≦ 2,231	2,218	☺	≦ 2,221
	5.2. Nuclear Power Plant Excluding Overhaul Capacity Factor (%)	100.38	≧ 99.75	100.77	☺	≧ 100.08
	6. Power Purchase Control					
	6.1. IPP Coal-fired Power (100 GWh)	214.74	≧ 206.294	215.235	☺	≧ 208.9
	6.2. IPP Fuel Cost (100 GWh)	—	≦ 183.31	171.81	☺	≦ 184.05
	6.3. Co-generation Power (100 GWh)	96.97	≧ 84.29	94.98	☺	≧ 89.84
	7. Operation and Maintenance Fee Control (Score/ kWh)	33.00	≦ 34.51	32.59	☺	≦ 35.82
	8. Energy Operations Performance					
	8.1. Line Loss (%)	4.25	≦ 4.65	4.09	☺	≦ 4.55
	8.2. Economic Dispatch Performance (TWD/ kWh)	1.67	≦ 2.03	1.80	☺	≦ 1.78

Dimension	Key Performance Indicator	2013 Actual	2014 Target	2014 Actual	Accomplishment	2015 Target
Fulfilling Social Responsibility	9. Occupational Safety Performance					
	9.1. Occupational Injury Incidence Rate	—	≦ 0.37	0.20	☺	≦ 0.37
	9.2. Occupational Injury Severity Rate	—	≦ 154	112	☺	≦ 135
	9.3. Occupational Injury Incidence Rate of Contractors	—	≦ 0.25	0.24	☺	≦ 0.26
	9.4. Major Occupational Incidents of Contractors	—	≦ 4	3	☺	≦ 4
	10. No. of Nuclear System Safety Performance Indicator Signals	white lights = 0 Yellow Lights = 0 Red Lights = 0	White lights ≦ 3 Yellow Lights = 0 Red Lights = 0	white lights = 0 Yellow Lights = 0 Red Lights = 0	☺	White lights ≦ 3 Yellow Lights = 0 Red Lights = 0
	11. Greenhouse Gas Control Performance (grams/ kWh)					
	11.1. Total Strength of Equivalent CO_2 Emis sions from Generation	496	≦ 525	498	☺	≦ 514
	11.2. Total Strength of CO_2 Equivalent Emissions from Thermal Units	706	≦ 728	698	☺	≦ 719
Improving Customer Service	12. Social Communication					
	12.1. Nuclear Issues					
	12.1.1. International Nuclear Issue Forum	4	≧ 2	2	☺	≧ 2
	12.1.2. Communication and Advocacy Production (No. of Types)	27	≧ 20	76	☺	≧ 10
	12.1.3. Legislative Yuan Committee/ Parliamentary Group	53	≧ 60	90	☺	≧ 30
	12.1.4. Agencies/ Media	129	≧ 130	106	☹	-**
	12.1.5. the Public	181	≧ 200	317	☺	≧ 200
	12.1.6. Gongliao/ Shuangxi	45	≧ 45	41	☹	-**
	12.2. Campus Education on Eletricity (events)	—	≧ 129	136	☺	≧ 105
	12.3. Positive News Coverage (items)	—	≧ 66	75	☺	≧ 66
	13. Customer Satisfaction (Score)	85.7	≧ 85.9	86	☺	≧ 85.9
	14. Improving Qualiy of Power Supply					
	14.1. Feeder Automation (No.)	512	≧ 500	533	☺	≧ 500
	14.2. Circuit Lines Added to Grid (Circuit Kilometers, CKM)	—	238	316.27	☺	137
	14.3. Total Capacity of Substations Added to Grid (Megavolt ampere, MVA)	—	2760	3025	☺	720
	15. Power Supply Reliability – Period of Forced Outages (min./customer·year)	18.086	≦ 18.25	17.496	☺	≦ 17.75

Note: 1. ☺Represents "objective accomplished" ☹Represents "objective not accomplished"
2. * Marks an item added in 2014
3. ** Activity on this indicator decreased as a result of the government announcing the suspending operation (sealing) of the Fourth Nuclear Power Plant; this indicator will be merged into the indicator Mass Communication.

◆ Accomplishments on Key Operational Performance Indicators

Item	Unit	2010	2011	2012	2013	2014
1. Line Loss Rate	%	4.66	4.76	4.42	4.25	4.09
2. Power Supply Reliability						
(1) SAIDI	min/customer.year	17.663	18.224	19.050	18.086	17.496
(2) SAIFI	times/customer.year	0.196	0.204	0.298	0.264	0.264
3. Employee Productivity						
(1) Sales per Employee	MWh/employees	8,548	8,792	8,755	8,852	9,086
(2) Customers per Employee	customers/employees	560	557	567	586	600
4. Nuclear Power Plant Operating Efficiency						
(1) Generation	GWh	40,029	40,522	38,887	40,079	40,801
(2) No. of Automatic Emergency Shutdowns	times/unit	0	0	0.33	0.67	0
5. Total Operating Efficiency of Thermal Power Plants						
(1) Gross Thermal Efficiency (LHV)	%	42.52	42.51	42.98	43.27	43.35
(2) No. of Electromechanical Accidents	times/unit	0.46	0.47	0.49	0.37	0.29
6. Environmental Protection Improvement						
(1) Particulate Pollutants	Kg/GWh	33	27	28	27	27
(2) Sulfur Oxide	Kg/GWh	342	356	328	302	305
(3) Nitrogen Oxide	Kg/GWh	354	364	337	327	312

1.4.2 Management Effectiveness through Corporate Internal Control

◆ Quality Management

Taipower actively promotes Total Quality Management. By the end of 2014, a total of 77 units had acquired ISO-9001 certification issued by the Bureau of Standards, Metrology and Inspection. Performance indicators of the past three years related to power quality (refer to the "Accomplishments on Key Operational Performance Indicators" table) such as line loss rate, thermal efficiency of generating units, period of forced outages, and strength of carbon dioxide emissions, have all significantly improved.

◆ Company-Level Material Management

To enhance the effectiveness of its management and control, Taipower adheres to the principle of centralized management referring to materials that are annually used in large quantities or in by many units, which are selected and reviewed for centralized requisition, allocation and inventory control for the sake of greater benefits. In 2014, the total value of company-level materials was TWD 9.65 billion, accounting for 66.13% of all materials used throughout Taipower. The company-level material turn-over rate was 3.91 times, higher than the Taipower-wide material turnover rate of 3.38 times. To support the upgrading of the grid, the company continued its practice of inventory management and control in 2014 as well. The value of Taipower inventories had decreased to TWD 2.469 billion, down from TWD 3.074 billion in 2006.

Real Expenditures to Suppliers in 2014

Unit: TWD million

Item	Amount	Percentage
Engineering	23,723	9.53%
Capital assets	204,547	82.17%
Labor	20,667	8.30%
Total	248,937	100%

Terminology

- Company-level material

  The so-called "company-level materials" refers to materials that are annually used in large quantities or in by many units, which are selected and reviewed for centralized requisition, allocation and inventory control for the sake of greater benefits. Transformers and high-voltage cables are cases in point.

- Operating materials

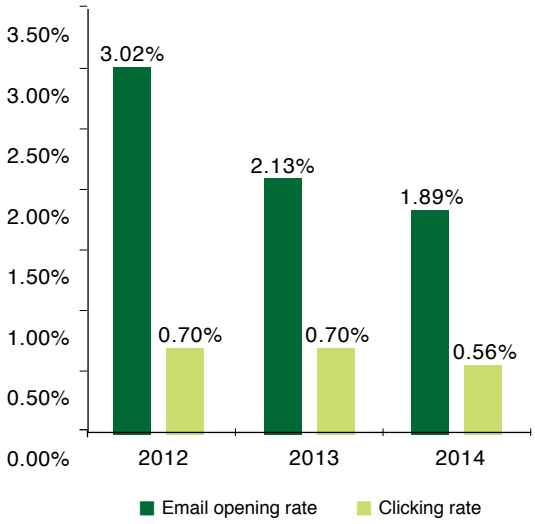
  Operating materials cover general materials (company-level and non-company-level), special components, and spare parts for power generation equipment.

Information Security Management

In 2014, Taipower retained its ISO 27001 (Information Security Management System) certificates. To enhance employees' safety habits when using e-mail, a social engineering exercise was held each quarter of 2014. The opening rate throughout the company was 1.89%, down from 2.13% in 2013, while the clicking rate decreased to 0.56 from 0.695% in the previous year, within the ranges of the standards announced in the Executive Yuan Information Security Report. (The email opening rate should be lower than 10%; the clicking rate should be less than 6%.)

Taipower also adopts the personal information protection into the company-level information security auditing. Education and training related to information security management was conducted monthly. Courses consisted of Situational Analysis of Internet Behavior and Information Security, ArcSight System Optimization of Detection Rules, Email Security, Server Security and Protection, Personal Information Security and Protection, Information Security and Risk Management, and Critical Infrastructure Protection.

Taipower Email Social Engineering Results 2012-2014



Financial Management

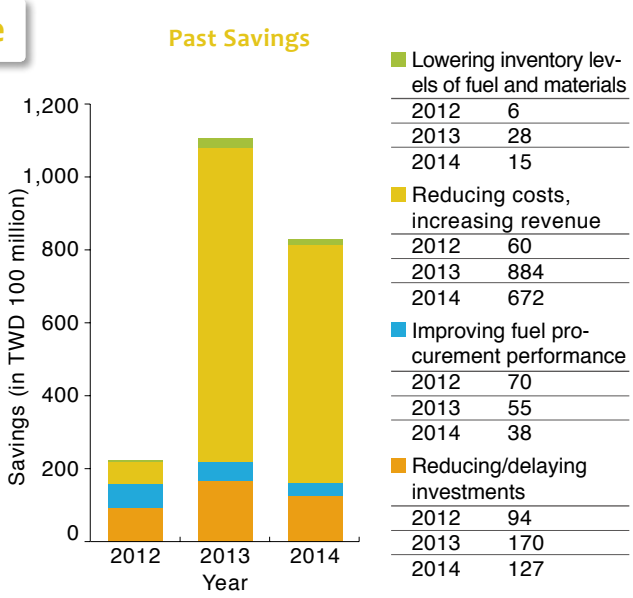
Taipower's credit ratings in 2014 were: long-term twAAA, short-term twA-1+, outlook negative, and obtained a long-term A+ grade from Standard & Poor's, with a negative outlook. If in the future Taipower's operating environment improves, the government's attitude becomes more supportive, and the uncertain status of the Fourth Nuclear Power Plant is resolved, the continuous negative impact on Taipower's financial indicators will cease. Taiwan Ratings may then adjust its outlook rating from "negative" to "stable".

Taipower believes that the higher the value of its enterprise, the greater its ability to serve its stakeholders. Therefore, in order to improve financial performance and enhance corporate value, Taipower pursues a business strategy of "creating value". In addition to setting targets for operational improvement, and strengthening its financial management ability to improve the company's financial structure, Taipower drives the activation of its land assets and optical fiber leasing business to diversify its revenue beyond electricity alone. In addition, Taipower also endeavors to rationalize its electricity tariffs to reflect the true cost of production, which is necessary for the sustainable operations of the company.

2.1 A Sound Financial Structure

2.1.1 Driving Operational Improvement

In line with the work of the "Task Force to Improve the Operations of Taiwan Power Company and the Chinese Petroleum Corporation", convened by the Ministry of Economic Affairs, Taipower conducted a comprehensive review of its business starting in April 2012. In June of the same year, it published the "Review Report on the Improvements of Operations of Taipower", and has since carried out rolling reviews and continuous improvements of its operations, which are planned to continue through 2016.



In order to achieve its business improvement targets and improve its financial structure, Taipower has established some task forces as: Coal Procurement Review, a Land Vitalization, a Material Control, a Long-Term Financial Planning and Capital Expenditure Control, Human Resources Development, a Power Planning, and a Power Industry Liberalization Coping Strategies. Besides internal members, these teams also from time to time appointed external experts to present macro perspectives and forward-looking recommendations. The task forces were held periodically to improve Taipower's operational performance.

Under its employees' efforts, Taipower reached all its objectives for operational improvement on schedule in 2014. In the future, the company will continue implementing internal reforms to enhance its communication and information transparency, and to raise awareness among the general public of the positive developments of Taipower.

Operational Improvement	2012-2016 Target	2014 Target	2014 Result	2015 Target
Reducing cost	TWD 45.5 billion	TWD 12.6 billion from cost reduction and revenue growth	TWD 12.7 billion from cost reduction and revenue growth	TWD 12.7 billion from cost reduction and revenue growth
Increasing revenue	TWD 5.8 billion			
Improving fuel procurement performance	TWD 23.5 billion from savings	TWD 3.5 billion from savings	TWD 3.8 billion from savings	TWD 5 billion from savings
Reducing/delaying investment	TWD 172 billion	TWD 65.3 billion	TWD 67.2 billion	TWD 35.2 billion
Lowering inventory levels of fuel and materials	TWD 5.5 billion	TWD 1.3 billion	TWD 1.5 billion	TWD 1 billion

Note: These targets were adopted at the 11th meeting of the "Task Force to Improve the Operations of Taiwan Power Company and the Chinese Petroleum Corporation" on 27 May 2014, and would be monitored under a rolling-review mechanism.

2.1.2 Strengthening Financial Management

Capital Expenditure Management and Control

Taipower has a Long-Term Financial Planning and Capital Expenditure Control Task Force, which has established and implemented a management and control mechanism for the purchase of fixed assets, including a top-down resource allocation system in budgets, recovery of interest revenue and underutilized budget items from budgets for projects, and general construction and equipment. In 2014, the task force took the following initiatives and realized the following outcomes:

- The task force drafted, discussed, and finalized the draft Capital Expenditure Budget of 2016, with a total amount of TWD 8.324 billion, which is lower than the amount in the original draft.
- To reduce project investments, the underutilized budget amounted to TWD 45.77 billion and interest revenue amounted to TWD 3.691 billion, respectively.
- With the budget control system, the task force established general-purpose buildings and facility projects to collect underutilized budget up to TWD 3.06 billion.

Boosting Fund-Raising Capabilities

In addition to the above-mentioned capital expenditure management and control, Taipower holds monthly cash flow estimation meetings where rolling reviews of funding gaps, and monitoring of liquidity risks are carried out. In consideration of its financial security, Taipower flexibly leverages the spreads between long-term and short-term interest rates, and makes long-term and short-term funding allocations in line with movement in the financial markets.

Long-term funds

Taipower seized opportunities in the domestic capital market when capital is abundant and interest rates are low. Coping with changes in the bond market, Taipower raised funds through fixed-rate loans of TWD 19.6 billion and issued unsecured fixed-rate loans of TWD 63.6 billion to avoid future risks from rising interest rates in 2014. Also, its medium-to-long-term floating-rate loans were transferred among banks at appropriate time through competitive bidding processes to bring down its borrowing rates. As a result, the company's average interest rates on current loans stood at 1.55%, lower than its putative budget interest rate of 1.77%, as set by the Legislative Yuan.

Short-term funds

Driven by the objectives of ensuring financial security while lowering capital costs, Taipower has endeavored to seek new sources of funding, attempted to issue commercial papers, and raised short-term bank loans by open tenders while prioritizing fund allocations are based on relevant demands in order to secure lower-cost funding for operational uses. In 2014, Taipower raised a total of TWD 138.273 billion in short-term loans and funds, issued TWD 506.05 billion worth of commercial papers, and managed to reduce the average annual interests for short-term loans to 0.83%, lower than its putative budget interest rate of 1.28%, as set by the Legislative Yuan.

2.1.3 Diversifying Business

To compensate for losses caused by electricity tariffs that fail to reflect the full cost of power supply, Taipower is actively lobbying the government for the reasonable electricity tariff schedules to reduce cost and create value.

To implement its "value creation" strategy, Taipower is driving company reforms toward a sustainable model through developing new business in the hope of improving its financial performance through the activation of land assets and revenue diversification from non-electricity business.

Promoting Real Estate Activation

In accordance with the 10-year land asset activation targets set by the Ministry of Economic Affairs, the Land Vitalization Task Force sets targets to accomplish its financial goals each year since 2012. The task force held two consultative conferences, and four task force meetings. Its achievements were as follows:

Real estate rental 	● Taipower implemented 10 cases of temporary parking lot rentals (35 locations) in total, with a combined annual revenue of TWD 58.36 million. With land tax reductions of TWD 27.37 million, total revenue from parking lot leasing reached TWD 85.73 million. ● Income from annual rentals for other real estate rentals came to TWD 154.59 million.
Promotion of educational/ recreational affairs	● The Taipower Hotels had an occupancy rate of 35.5%, up by 6.5% from the previous year. Annual revenue is TWD 23.44 million, an increase of TWD 4.45 million, or 23%, from the previous year.
Promotion of advertising	● Taipower leased a total of 10 outer wall spots for advertising and commercials, generating an income of TWD 7.59 million.
Land development and utilization 	● The co-development project of the Jingmei Landfill Tower in Wenshan District, Taipei City, was completed and handed over. Taipower earned approximately TWD 220 million, including an 864.6 m^2 building with seven parking lots. ● A contract was signed to co-develop a temporary parking lot on Sec. 2, Roosevelt Road, Daan District, Taipei City, into 1293.6 m2 of housing and nine parking spaces in 2017. ● A sales tender for a temporary parking lot on Zhongshun Street in Muzha District, Taipei City, yielded TWD 87.51 million.

Optical Fiber Line Leasing

Under the "Regulations Governing Fixed Network Telecommunications Businesses", an application for permit to engage in "Leasing of Long-Distance Domestic Landlines" was filed with the National Communications Commission (NCC), and approved on 27 November 2014.

Initially, "dark fiber" will be leased out. In the future, this may be adjusted and expanded, under a continual management model, in response to trends in the telecommunications market.

Areas currently approved Taipower's optical fiber line leasing business include: Taipei City, New Taipei, Nantou, Hualien-Taitung, and Pingtung County. The first-stage lease lines are 400 km of backbone network and LAN networks along the high-voltage lines in the Taitung-Hualien area and the east-west connection from Nantou to Hualien. In addition, Taipower has requested NCC to extend its operation permit to all of Taiwan. This permission is expected to be granted in 2015. Under Taipower's medium-to-long-term operational business strategy and this business model, Taipower will formulate a development plan to serve the telecommunications market and

the general public. This will create additional revenue for Taipower and contribute to the development of our nation's telecommunications.

Participation in Reinvested Enterprises

Since 1962, and in line with government policy, Taipower has participated in a number of private business investments. As of the end of 2014, the company had interests through reinvestments in the Taiwan Stock Exchange Corporation Ltd., the Taiwan Cogeneration Corporation Ltd., and for the development of the Bengalla Mine in Australia, the Bengalla Mining Company Pty. Ltd., the Bengalla Coal Salea Company Pty. Ltd., and the Bengalla Agricultural Company Pty. Ltd., which cost Taipower totaled TWD 1.275 billion. In 2014, the company's income from these reinvestments was TWD 426 million, representing a return on investment of 33.41%.

2.2 Promote Tariff Rationalization

2.2.1 Striving for Reasonable Electricity Tariff Schedules to Reflect Costs

Since 2003, international fuel prices have risen significantly. In 2006, 2008, 2012, and 2013, Taipower adjusted its electricity tariffs. However, in order to support the government's policies to stabilize prices, to mind the people's livelihood, and to mitigate impact on industry, these adjustments did not sufficiently reflect the risen cost of fuel during that time period. This caused enormous losses in income, which by 2014 had accumulated to TWD 193.5 billion, making Taipower in hazard. For the sake of intergenerational justice, today's loss caused by unreasonable cheap rates should not be shifted to our next generation. This is the reason why Taipower pursues tariff rationalization in hopes that reasonable profits will be able to recover the losses already sustained. This will require, on the one hand, a new pricing formula, a fair, open and transparent mechanism for the professional review and setting of tariffs, and on the other hand release Taipower policy burden.

Objective of Electricity Tariff Design

In addition to balancing operating expenses, the electricity tariff should also provide sufficient profit not only to cover its costs but to be able to invest and build new construction for power development.

A New Pricing Formula

On 11 September 2013, the Executive Yuan sent its "Proposal for Revision of the Calculation Formula for Electricity Tariffs" to the Legislative Yuan. The Economic Committee of the Legislative Yuan held its first review meeting on the issue on 18 December 2014. To seek social consensus and ensure full transparency, a public hearing was convened on 25 December 2014 to solicit the views of scholars and experts. On 31 December 2014, the committee had its second review meeting, in which the committee provided all information and clarifications on issues of concern to the committee members. Finally, on 20 January 2015, the revised calculation formula for electricity tariffs was passed by the Legislative Yuan. Apart from reflecting cost of power supply, the formula also allowed a 3-5% rate of return on investment. At presented, the Ministry of Economy has established an Electricity Tariff Review Committee, with reviewing the production costs and giving final approval to the quarterly tariff adjustments.

2.2.2 Pursuing Relaxation of the Policy Burden

Tariff Reductions

Taipower handles tariff reductions in accordance with laws and regulations. The tariff reductions extend to electricity for public lighting, public water, electrified railways, educational institutions, farming, offshore islands, social welfare groups, and the disabled. In 2014, these reductions totaled TWD 5.81 billion. To prevent the unfair situation where these reductions are directly borne by the people, the Electricity Act stipulates that these reductions be covered by allocations in the budgets of the competent authorities in charge of the target group enjoying the reduction.

The Legislative Yuan held the "Conference on the Policy Burdens of Taiwan Power Company and China Petroleum Company" on 29 November 2013, and the "Conference on Cooperation after Government Policy-Based Tariff Reductions Are Incorporated in the Budgets of Various Ministries and Commissions" in July 2014. After this conference, the Ministries of Interior Affairs, Science and Technology, Transportation and Communication, Economic Affairs, Justice, Education, labor, Health and Welfare, and the Council of Agriculture, Executive Yuan, were all requested to allocate funding for electricity tariff reductions in their budgets as of 2015. The total amount of these allocations is expected to reduce Taipower's burden by TWD 700 million.

Offshore Islands Subsidies

According to the Offshore Islands Development Act, the electricity tariffs on Taiwan's offshore islands are set as the average of the rates on the main island Taiwan. The losses thus incurred should have been covered by the central government's budget, but Taipower has never received subsidy for this. After many years of efforts on the part of Taipower, the Executive Yuan convened the "Conference on the Policy Burdens of Taiwan Power Company and China Petroleum Company" on 31 January 2013, which passed the resolution that the policy burdens must be gradually reincorporated into the budgets of the competent authorities for various industries and domains. Each ministry and council must, within a period of ten years, progressively allocate funding in its budget to bear its fair share of the policy burden. Accumulated losses from power supply to the offshore islands reached TWD 66.261 billion in 2014. The Ministry of Economic Affairs subsidized TWD 537 million in 2014, leaving TWD 65.724 billion uncovered. The ministry will allocate TWD 1.073 billion in 2015.

Renewable Energy Subsidies

In accordance with the Renewable Energy Development Act, the Regulations Governing Application and Approval of Renewable Energy Subsidies, and in line with the government-approved "Calculation of price difference pay-back on renewable energy wholesale tariffs", Taipower applied the Renewable Energy Development Fund for energy subsidies, and was awarded TWD 2.556 billion.

In sum, TWD 11 million of the above amount of renewable energy subsidies from the government will be recognized as company income in 2014.

Governmental Subsidies in 2014

Unit: TWD 100 million

Item	Amount
Renewable energy subsidy	25.56
Offshore islands electricity tariff loss subsidy	5.37
Renewable energy generation equipment and construction subsidy	0.11
Other government subsidies	0.04
Total	**31.08**

To increase revenue and improve financial performance, Taipower strives to improve its procurement performance and generation efficiency. Through power demand management it helps customers reduce their electricity demand. This in turn benefits the company's operational performance and reduces operating cost.

3.1 Raising Procurement Performance

3.1.1 Fuel

Taipower applies great effort to the improvement of its operating performance through its strategy of fuel supply stability in line with the work of the Taipower and CPC Business Improvement Task Force of MOEA. In the future, Taipower itself will make international purchases of liquid natural gas (LNG) with advice from the MOEA, and use the reception stations of the China Petroleum Corporation to deliver the LNG to its power plants at lower cost.

Taipower's Coal Procurement Review Task Force holds meetings, which at times invites external experts and scholars to set the company's flexible coal procurement strategy. In 2014, the committee held four meetings in response to market changes, completed the year's procurement plan, and exceeded the operational improvement target of TWD 3.5 billion, as set by MOEA.

Fuel Procurement Savings in 2014

Unit: TWD 100 million

Procurement Item	Savings
Coal	38.1
Ocean Freight of Coal	7.0
Oil and Diesel	0.34
Liquid Natural Gas	42.82
Nuclear	1.85
Total Savings	**90.11**

3.1.2 Materials

In line with its commitment to improving operating performance, Taipower established the Material Control Task Force in August 2012, which oversaw the improvement of the systems for materials procurement and inventory management, and reviewed the outcomes of these management and control systems. Within a period of five years (2012-2016), the task force has realized materials procurement savings of TWD 4.65 billion (operational savings of TWD 2.9 billion, and inventory savings of TWD 1.75 billion).

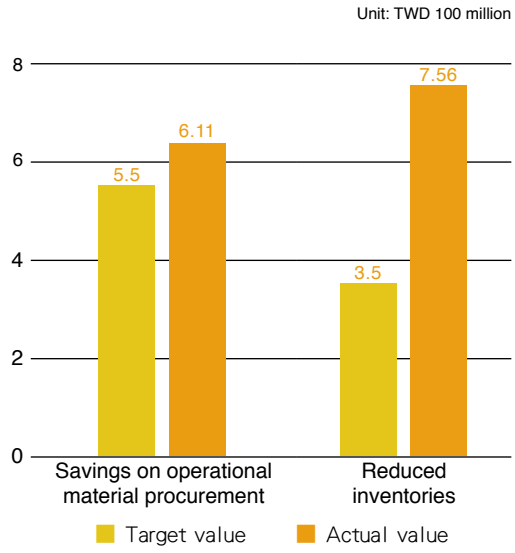
Reducing Inventory

Through system design and Enterprise Resource Planning (ERP), Taipower improved the accuracy of its front-end fuel demand estimates. The company also used open contracts as a flexible delivery tool to optimize inventory reserves. In addition, to better manage and control inventories of special components and spare parts used in power plants and power generation turbines, every department overseeing power plants visited their power plants to review the quantities of spare parts used for safety and overhaul purposes. As of the end of 2014, materials inventories had decreased by TWD 1.953 billion, surpassing the original five-year inventory reduction target of TWD 1.75 billion.

Reducing Procurement Costs

Under the precondition of compliance with procurement laws and regulations, Taipower has established Key Performance Indicators (KPIs) for procurement, such as price reduction, and centralized procurement performance, for all units to use. On the KPI of price reduction, Taipower has committed to a target of TWD 2.9 billion savings on operational procurements over the course of five years from 2012. By 2014, the company had already realized savings of TWD 2.154 billion, realizing 74.3% of the target within two years. To drive centralized procurement, Taipower selected suitable items with the help of its Centralized Procurement Management Guidelines. It also assigned units that are big users of certain materials to sign contracts to purchase these materials for the entire company. This reduced the number and cost of procurements. In addition, Taipower is planning a supplier classification plan, whereby suppliers are classified into certain levels in order to incentivize excellent suppliers with reductions or exemptions of inspections, early payments, advance payments, etc. This will increase price competition among suppliers, and reduce procure cost.

Planned and Realized Procurement Savings in2014



3.1.3 Power Purchase

In order to ensure stable operations and secure financing opportunities for IPP, Taipower has entered into power purchase agreements that span for 25 years and into the contract that prescribes fixed rates (i.e., does not adjust according to floating interest rates) for capital expenses in the purchase prices. In addition, the contract also clearly defines periodic adjustment schemes for fuel costs, maintenance fees, and subsidies. The establishment of the aforementioned IPP purchase pricing (including reserve price and asking price) has been performed in compliance with Ministry of Economic Affairs' "Operation Directions for Deregulated Power Industry" and "Private Power Plant Establishment Plan".

Despite the continuous decline of market interest rates since 1993, Taipower was not able to adjust the capital expenses in accordance with the falling interest rates due to contract restrictions. And as such, Taipower has attempted numerous negotiations with IPPs and sought the assistance of the Energy Bureau of the Ministry of Economic Affairs for negotiation, but failed to achieve consensus with the IPPs to amend the terms of the contract. Taipower filed for litigation and submitted a complaint to the Fair Trade Commission. After the Legislative Yuan decreased the budget for power purchase and because of the force from public opinion, the IPPs yielded and agreed to resolve the dispute by amending the contract. Taipower amended the contract with 9 IPPs in August 2013 and adopted the status of pow-

er generation in 2011 and the market interest rate as the basis of calculation. In the future, Taipower will be able to reduce its power purchase expenditure by approximately NT$ 1.54 billion per year, amounting to a total of NT$ 24.9 billion during the span of the contract.

With regard to the dispute that had arisen from the IPP power purchasing price, the Ministry of Economic Affairs has announced that future establishment of IPP power purchase pricing shall be implemented in the same way where renewable power purchase pricing is done – the government shall set up a review committee that comprises representatives from the industry, the government body and the academe in order to conduct reviews that are objective and professional. Not only that, Taipower will also vie for a fair, unbiased third party to establish the IPP power purchasing price to eradicate the public's doubt on Taipower's overpriced purchase of IPP power.

3.2 Raising Power Generation Efficiency

3.2.1 Thermal Units' Operating Performance

Installing high-efficiency coal-fire units in Linkou and Dalin, and gas-fired combine-cycle in Tongxiao, and upgrading the energy efficiency rates of existing units through operation and maintenance measures, the LHV Gross efficiency rates of thermal power plants reached 43.35%, up from 43.27% in 2013.

A best-practice case of high-efficiency power generation: optimized loading of units at Datan

Since the maximum power output of the Datan combined-cycle power plant is limited by an annual NOx emissions limit of 4,844 metric tons imposed by the Environmental Impact Assessment Plan, the plant must supply power within this emission limit and in a cost-effective manner. This is why the Datan plant adopted rather new and high-efficiency power generation units, which offer the advantages of lower power generation cost and lower NOx emissions.

In comparison to 2013:

- Capacity rate increased by 3.71% in 2014
- Power supply rose to 1.354 GW in 2014

Decrease the intensity of NO_X emissions

- Select the power load with the lowest intensity and highest efficiency of NO_X emissions.
- Establish fuel optimization teams to calibrate engines after repair and maintance.
- Upgrade components of steam-powered generators. Reduce NO_X emissions and extend major repair cycles to expand the capacity of the engines and oprational efficiency.

Raise power generation efficiency

Taipower may consider increasing generation at Datan and elsewhere to lower the relative cost of power thus generated, and maximize overall production and environmental benefits.

3.2.2 Operating Performance of Nuclear Units

Taipower implemented a series of measures and sophisticated practices to improve the operating performance of nuclear power generation. Major projects include:

- In 2013, there were four outages due to overhaul delays and unexpected shut-downs were thoroughly reviewed, resulting in an adjusted management direction in 2014.
- Weaknesses of nuclear power plants were collected from their supervising units, and analyzed and reviewed.
- Safety look-out and management during major repair work were strengthened.
- Equipment improvement and renewal were enhanced.

The net generation of nuclear power reached 408.01 kWh and the utilization rate reached 93.75%, setting two historical records. The first-stage "medium upgrade" of generators 1 and 2 of Nuclear Power Plant No. 2 was completed in 2014, which raised their generation efficiencies by 0.7% and 0.82%, respectively. From 2006 through 2014, their efficiency gains accumulated to a total of 210 MW, with annual gains of approximately 1.6 TWh.

Utilization Rates of Nuclear Power Plants in 2014

Unit: %

Year	Nuclear Power Plant No. 1			Nuclear Power Plant No. 2			Nuclear Power Plant No. 3		
	Reactor 1	Reactor 2	Average	Reactor 1	Reactor 2	Average	Reactor 1	Reactor 2	Average
2014	91.22	90.02	90.62	98.91	92.45	95.68	97.23	82.19	89.71

Note: Utilization rates of nuclear power plants = No. of hours of power generation per year / No. of total hours in that year

3.3 Demand Management

3.3.1 Load Management

Taipower has practiced load management for more than 30 years, from real-time liberalized-market pricing and demanded trading to demand-based response measures that balance the system. All these approaches have been continually improved. In 2014, peak clipping was 4.57 GW, accounting for 13.1% of the peak load at 34.821 GW, which mitigated the pressure of power demand during peak times. In addition, comparison with power utility practices abroad — America for instance clips its peak rates by 6.1% — demonstrated Taipower's excellent load management.

Power Demand Response Measures

Measure	Description	Applicable Customer	Effect
Implementing "Time-of-use Rates" since 1979	Reflect the cost of electricity during different time periods. Encourage off-peak hour electricity use to reduce peak load.	All customers	Reduced the daily peak load in 2014 by an estimated 3.134 GW
Implementing "Ice Storage Central Air-Conditioning System" since 1991	Encourage installation of ice storage system to fully utilize the off-peak electricity so as to reduce peak load. The off-peak hour electricity rate earns a 40% discount of the peak rate.	Commercial customers (i.e., hotels, hospitals, administrative agencies and so forth)	
Implementing "Central Air Conditioner Duty Cycling Load Control Measure" since 1991	Rotation of central air-conditioning system with 60 mins on and 15 mins off. Rotation of package air-conditioning system with 22 mins on and 8 mins off.	Non-productive customers (i.e., office buildings, schools and so forth)	
Implementing "Interruptible Rates" since 1987	Provide discount rates to mitigate peak load and transfer to off-peak hours.	100 kW customers and schools (depending on the contract; factories, educational institutions, etc)	Daily peak load reduced by 1.436 GW

To enhance the efficiency of its demand management, Taipower has combined internal energy saving performance and peak load into the KPIs of its responsibility centers for monitoring, management, and control purposes. Statistics of 2014 showed that Taipower realized internal power savings of 85.7 GWh, and a requested peak load capacity of 2.43 GW. In the future, Taipower will adopt additional measures and set even more challenging targets. In addition, the company will use unscheduled and random spot checks to strengthen demand management in its branches to reduce its power demand in summer.

Taipower's Internal Power Savings and Peak Loads

Year	Internal Savings (GWh)	Peak Load (GW)
2012	122.3	2.34
2013	188.9	2.42
2014	85.7	2.43

3.3.2 Energy Saving Incentives

To encourage customers to save energy, Taipower introduced energy-saving incentives in July 2008. These incentive packages have been renewed four times to promote energy-saving awareness and the efficiency of the incentives. The current energy-saving incentives were introduced in August 2014. The incentive applies a discount to the customer's actual power consumption (TWD 0.6 per kWh). The incentive is TWD 84 (TWD 100 for customers with a disability) at least or the calculated amount, whichever is the higher. Statistics from the introduction date through December 2014 shows that 17,433 customers benefited from the incentives. The total saving was up to 26.603 MWh for a total amount of TWD 47.043 billion. Reduced emissions totaled 13.89 million metric tons, equivalent to the annual CO_2 absorption[1] of 17,000 Daan Forest Parks in Central Taipei.

Year	Electricity Saved (100 GWh)	Money Saved (TWD 100 million)	CO_2 Emission Prevented (10,000 metric tons)
2012	48.3	98.7	252
2013	41.6	70.9	217
2014	35.5	47.9	185

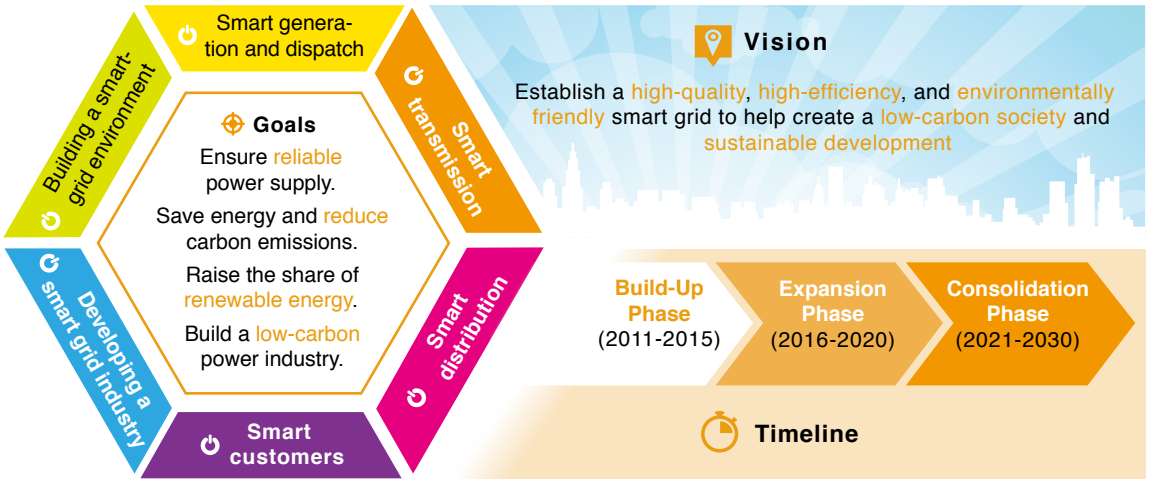
Community-based energy saving

In addition to the above energy-saving incentives, Taipower also offers free energy-saving community outreach services, consisting of "diagnosis" and "advice". The service promotes energy-saving techniques and high-efficiency energy-saving products, and provides recommendations for saving energy on shared facilities. In 2014, Taipower served 201 communities (neighborhoods, buildings) in Taiwan, as well as the offshore islands. Almost 8,236 people participated in energy-saving community meetings, which were very well received.

3.3.3 Optimum Use of the Smart Grid

Based on the blueprint of "Smart Grid Master Plan" (details on the MOEA website) and its vision of "Building a high-quality, high-efficiency, and environmentally friendly smart grid to help create a low-carbon society and a sustainable environment" and the work of the "Smart grid Promotion Team" of MOEA, Taipower implements and promoted a number of specific smart-grid projects.

The promotion smart-grid program is divided into a short-term / introduction phase (2011-2015), a medium-term / growth phase (2016-2020), and a long-term / consolidation phase (2021-2030) to promote generation and operations, transmission, distribution, and customers. The National Smart Grid Master Plan aims to achieve the targets of "ensuring power supply reliability, furthering energy saving and emission reduction, raising the use of green energy, and leading the low-carbon industry".



[1] Based on figures in the report 'Saving Energy and Reducing CO_2 Emission Starts from Saving Electricity' published by the Bureau of Energy, MOEA, in July 2011, the annual CO_2 absorption of one Daan Forest Park is 389 metric tons.

Terminology

- Smart grid

  A comprehensive power system, which connects generation, transmission, distribution, and customers, through information, communication and automation technology, focused on automation, security, and close cooperation between users and suppliers to enhance the system's operating efficiency, supply quality, and grid reliability, and promote the policy objectives of expanding renewable energy use, energy saving and carbon emission reduction.

- Smart generation and dispatch

  An electricity grid structure that allows feeding of renewable energy into the grid and increases the volume of renewable energy generated. Renewable energy such as wind power and solar energy is intermittent in nature, causing voltage fluctuations when its proportion of total electricity increases. A smart grid and smart power control centers immediately distribute unstorable energy to customers or assist the exchange between areas with electricity shortages and surpluses to manage and match supply and demand.

- Smart transmission

  A power grid with real-time status monitoring and analysis capabilities is able to detect, assess, and handle the abnormal, and remove obstacles in the grid instantly.

- Smart distribution

  Feeder Automation allows for quick identification, isolation, and removal of feeder blockages, which decreases the time and scope of such blockages.

- Smart customers

  Besides saving labors, smart meters can also support various types of dynamic pricing and load management, provide real-time load information to the power companies, help customers saving energy, help power companies to take appropriate measures, and reduce peak load accordingly.

Smart Grid Promotion and Management Mechanism

Taipower has a "Smart Grid Task Force", designated as the unit responsible for smart generation, smart power transmission, smart power distribution, and smart customers. The task force sets, promotes, and reviews these for targets and their KPI values achieved to build a smart grid.

Smart Grid Targets

Target	Review Item	2015 Target	2020 Target	2030 Target
Ensuring power supply stability	SAIDI (min/customer·year)	17.5	16	15.5
	Line Loss Rate (%)	4.64	4.54	4.42
	Number of Smart Substations (stations)	25	303	583
Promoting of green energy	Renewable resources (%)	15	20	30

Note: The System Average Interruption Duration Index (SAIDI) is calculated as the average forced power interruption time per household per year.

Every month, Taipower submits a progress report on various dimensions of its Smart grid to the Bureau of Energy, MOEA. In addition, the Smart Grid Task Force meets quarterly to oversee and review progress in building a smart grid.

Promotion Performance in 2014

Targets and Performance in 2014

Target	Review Item	2014 Target	2014 Performance
Ensuring power supply reliability	SAIDI (min/customer·year)	18	17.50
	Line Loss Rate (%)	4.66	4.09
	Number of Smart Substations (stations)	23	25
Promoting green energy	Renewable resources (%)	Renewable resources connected to the grid as set by the Bureau of Energy, MOEA.	

Performance of the Smart Grid Task Force in 2014

Generation and Dispatch	Transmission	Distribution	Customers
● In 2014, 150 km of dedicated optical fiber lines and 60 optical fiber communication systems were constructed to create reliable communication circuits. ● The IEC 61850 standard protocol was adopted. ● An impact study on mass flow from renewable resources connected into the Taipower grid was conducted.	● The construction of a Special Protection System for Nuclear Power Plant No.3 was planned. ● Digitization of relay system: Replacement of transmission protection relays continued and reached a 79% completion rate.	● Taipower's smart power distribution focuses on the feeder automation. Currently, 6,870 feeders have been automated. ● The Penghu Smart grid Construction Pilot Project, one of the centers in the Phase-II National Energy Science and Technology Plan of the Ministry of Science and Technology, is underway. The project will help verify smart grid effectiveness. ● Research into the Taipower Area Peak Hour Feedback Experimental Project was conducted.	● The online service portal for high-voltage customers was launched in 2014. ● The installation of AMI with 10,000 customers was completed and its results analyzed. ● The communication technology of AMI with 10,000 customers was analyzed and given an initial evaluation.

Terminology

- Advanced Metering Infrastructure (AMI)
  An infrastructure consisting of smart meters, communication systems, and a meter information management system.
- Protection relay
  A protection device, which detects the abnormal and accidents in the power system, and sends out alerts to grid management to secure power supply, people's safety, and equipment integrity.

As a good corporate citizen, Taipower endeavors to minimize the impact of its operations on the environment and society. The company encourages its partners to do the same, and builds a sound working environment for its employees. Doing the right thing deserves to be known. Therefore, Taipower invests in communication with its stakeholders such topics as nuclear issues and other issues of social concern. The company maintains various online channels for information disclosure and low-threshold feedback and complaints. This high level of interaction enables the company to understand the needs and expectations of the society.

4.1 Creating a Sustainable Environment

4.1.1 Implementing Environmental Impact Assessments

Taipower's facilities and operations may impact local communities through water pollution, air pollution, soil pollution, noise, vibration, odor, waste, toxic substance pollution, land subsidence, and radioactive pollution, or through damage to natural resources, the landscape, and the social, cultural, and economic environment. Therefore, Taipower will always conduct scientific, objective, and comprehensive research, forecast, analyze, review beforehand, propose an environmental management plan, and hold public hearings and reviews in order to prevent and mitigate the impact of our development activities on the environment.

Before any power facility is constructed, an Environmental Impact Assessment (EIA) is conducted. Taipower always hears and studies the views of the residents of an area where a development is planned to take place through public briefings and hearings, community visits and communication with residents, and assesses the environment from physical, chemical, cultural, social, economic, and ecological points of view. Since any development will affect the local environment to a lesser or greater degree, Taipower will, based on the degree, scope, and type of impact of the proposed development (e.g. transmission lines, energy source development), design environmental mitigation countermeasures, and describe these in the EIA report for practical implementation.

After the EIA of a development project has been approved, Taipower will draw up a "Minimizing Environment Impact Plan", a "Minimizing Environment Impact Action List" and an "Environment Assessment Commitment Checklist" in order to realize its commitments made in the EIA report. In each quarter of 2014, about 45 such check lists were created and implemented. Also, earthwork projects are uploaded to the EPA website, and monitored throughout the period of the work to ensure the environment doesn't unduly suffer.

In 2014 Taipower engaged in communication with local residents, and achieved the following EIA results:

Development Project	Environmental Impact Assessment Achievement
Taiwan – Penghu 161kV Cable Line Project	On 20 June, an information session and public hearing was held at the Kouhu Township Hall in Yunlin County, where the project, the EIA, and the Environmental Impact Statement (EIS) were explained to the local residents in attendance.
Dalin Power Plant Overhaul Project	The EIS was conditionally approved in 2010, allowing for the initial construction of two units. After the plan was amended, there were no more environmental protests. The ongoing construction work undergo environmental monitoring on a quarterly basis, the results of which are posted online. To date, all findings have been in line with standards, and no abnormal case has been found.
Linkou Power Plant Renewal and Expansion Project	● The EIA for the renewal of Unit No.1 and the common facilities was conditionally approved in 2005. The EIA for Units No. 2 and No. 3 was approved in 2008, and there have been no environmental protests since. Every quarter a report is made, based on the Minimal Environmental Impact Construction Plan required by the conclusions of the EIA. Continuous environmental monitoring is carried out, and all test results have been in line with standards. ● In terms of landscape improvement around power plants, Phase-I of the Xiafu Borough Beautification Construction Project created the Chushuikeng Dongfu Culture and Living Space, the Shanwei Residence Gathering Space, the Mapu Gathering Space, the Xiananping Gathering and Road Landscaping, the Mapu Xingfu Culture and Living Space, and the Chushuikeng Gathering Space. The last of these spaces will be completed on 28 February 2015.
Tongxiao Power Plant Renewal and Expansion Project	● In this project, which follows the build-first-demolish-later model, Units No. 1-3 of the Tongxiao Power Plant will be replaced. The EISs for these three replacements were approved on 8 April 2009, 18 June 2013, and 24 February 2015 respectively. To date there have been no environmental protests. The project adopts minimal environmental impact engineering to reduce the impact on the environment. ● During the construction period, environmental tests are conducted every quarter. To date all test results have been in line with standards, and no abnormal case has been found.
Dajiaxi Power Plant Qingshan Subsidiary Plant reconstruction Project	The EIS was conditionally approved on 4 August 2008, and to date there is no environmental protest. The project must be carried out according to a detailed Minimal Environmental Impact Construction Plan, and report (with photos) monthly.

4.1.2 Mitigating Climate Change

On 9 May 2012, the Environmental Protection Administration (EPA), Executive Yuan, designated greenhouse gases (GHG) as air pollutants. Under the "Air Pollution Control Act," it inventories and reports GHG emission sources and volumes. Since 2010, Taipower has been monitoring its GHG, and is a participant in the Preliminary Project and the Offset Project of the EPA. The company is taking action to control and reduce GHG emissions.

For information regarding Taipower's approaches and results in controlling non-GHG emissions, please visit the Taipower Sustainable Development Website.

◆ Greenhouse Gas Inventory and Management

Taipower's main sources of GHG emission include thermal power generation, coal yards, transportation vehicles, insulation gas used for switchgear, freezers and air-conditioning facilities. The GHG emission volumes disclosed in this report are all from Scope I emission volumes. The total GHG emission, including IPPs', from Taipower, is leading management and control of Scope I, and GHG emissions from this procured power is not listed on Scope II.

In 2014, thermal power plants accounted for about 98.8% of Taipower's GHG emissions, while 1.2% came from other sources ("common process"). Since 2014, thermal power generation has grown more than 4%, causing overall emissions to surpass those of 2013, and making the net emission intensity from power generation grow slightly from 0.496 kg CO_2e per kWh to 0.498 kg CO_2e.

For the sake of GHG information transparency, the Taipower website (Disclosure Section > Thermal Power Plants Environmental Protection > Greenhouse Gases) provides Taipower emission figures over the years, which showed a declining trend from 2005 – 2014. In order to make its GHG information transparent and credible, Taipower entrusted a certification agency to conduct ISO 14064-1 verification. In 2014, 17 units retained their ISO 14064-1 verification.

National and Taipower Electricity Emission Factors

Unit: kg CO_2e/kWh

Item	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
National electricity emission factor	0.559	0.564	0.559	0.557	0.543	0.535	0.536	0.532	0.522	0.521
Taipower electricity emission factor	0.533	0.532	0.520	0.514	0.492	0.489	0.496	0.488	0.478	0.478

Notes: 1. The National Electricity Emission Factor has been defined by the Bureau of Energy as follows:
National Electricity Emission Factor = (net emissions of Taipower + net emissions of IPPs + net emissions from cogeneration - emissions from line loss) / (net generating capacity of Taipower + electricity sold from IPPs to Taipower + electricity from cogeneration sold to Taipower – electricity volume from line loss)

2. The Taipower Electricity Emission Factor has been defined by the Bureau of Energy as follows:
National Electricity Emission Factor = net emissions of Taipower – line loss / net generating capacity of Taipower – electricity volume from line loss)

3. The national power emission factor and the emission intensity of Taipower are inventoried and calculated from power generation from thermal, hydro, nuclear and renewable energy sources and GHG mission volumes.

Scope I Greenhouse Gas Emissions of all Units

Unit: 1000 metric tons of CO_2e

Year	CO_2	CH_4	N_2O	SF_6	HFC	Total
2010	80,364	97	302	232	7	81,002
2011	83,944	69	316	227	20	84,576
2012	84,206	75	314	186	59	84,840
2013	81,682	65	300	147	58	82,252
2014	84,896	70	322	121	18	85,427

Scope I Greenhouse Gas Emissions from Thermal Power Plants

Unit: 1000 metric tons of CO_2e

Item	2012	2013	2014
Oil-Fired Units	4,347	4,053	5,035
Gas-Fired Units	20,472	20,844	22,337
Coal-Fired Units	59,367	56,783	57,005
Total	84,186	81,680	84,377

Management and the Reduction of SF_6

Most modern power generation facilities (including switchyards, substations and distribution lines) use SF_6 for insulation switchgear equipment, with the quantity of equipment being large and varied. Through its SF_6 reporting and management information system, Taipower has achieved precise control of SF_6 use and emission. For the creation of re-usable space, Taipower will recycle and collect SF_6 gas in empty cylinders for storage and deliver them to the National Halons and F-gases Management Center for refining before being transferred to the magnesium alloy industry for further use. This helps to increase the life span of SF6 and reduce the emission volume of GHG. Throughout 2014, the recycled inventory came to approximately 594.50 kg, with purified emissions at roughly 39,492.65 kg.

Greenhouse Gas Pilot Project and Offset Project

After the Environmental Protection Administration published the "Principle of Preliminary Greenhouse Gas Reduction Project and Replacement Plan" (the Principle) in 2010, Taipower has followed this principle to handle the relevant cases, and has achieved a reduction volume which could be used in the future for replacement (trading) purposes.

Pilot projects

When a combined-cycle unit has an emission level lower than that announced by the EPA, the plant may, according to the Principle, apply with the EPA for examination and grant of a credit for the Preliminary Project.

As of 2014, the Dalin, Taichung, Xiehe, and Xingda Power Plants (2000-2012) have passed the examination by the EPA, with the 2013 carbon credits for Taichung and Xingda Power Plants pending EPA review.

EPA Audit Year	Power Plant	Years of Preliminary Project	Emission Reduction
2012	Dalin	2005 - 2010	Approx. 178,000 metric tons
2013	Xiehe	2000 - 2008	Approx. 5.877.000 metric tons
	Taichung	2000 - 2011	
	Xingda (coal)		
	Dalin	2000 - 2004, 2011	
2014	Xingda (combined-cycle)	2000 - 2010	Approx. 724,000 metric tons
	Xingda	2012	
	Taichung	2012	

Offset projects

Offset project refers to the registration of a certified emission reduction for a power plant through the submission of a preliminary project. In 2014, Taipower filed 11 applications for replacement plans. The contents and progress of these projects at the end of 2014 are given below:

Responsible Unit	Project	Crediting Period (Years)	Expected Carbon Emission Reduction (10,000 metric tons CO_2e)	Current Status
Taiwan Power Research Institute	7.03 MW Photo-Voltaic Plant Project	7	4.31	Approved EPA examination and registered (2012.11)
Department of Generation	Wansong, Bihai Hydro Power Generation Project	7	184.30	Approved EPA examination and registered (2012.11)

Responsible Unit	Project	Crediting Period (Years)	Expected Carbon Emission Reduction (10,000 metric tons CO_2e)	Current Status
Xiehe Power Plant	Xie #4 Blower Motor Rotation Control Improvement	10	23.70	Approved EPA examination and registered (2013.12)
Taichung Power Plant	Taichung #4 Steam Turbine Efficiency Improvement	10	25.86	Approved EPA examination and registered (2013.12)
Xinda Power Plant	Xin #1 Boiler and Steam Turbine ,Control System and Efficiency Improvement	10	52.63	Approved EPA examination and registered (2014.07)
Xiehe Power Plant	Xie #3 Blower Motor Rotation Control Improvement	10	To be confirmed	Confirmed; under examination by EPA
Taichung Power Plant	Taichung #3 Air Pre-Heater and Steam Turbine Efficiency Improvement	10	To be confirmed	
Department of Renewable Energy	Taichung and Xingda-Voltaic	7	To be confirmed	
Department of Renewable Energy	Taichung Longjing Photo-Voltaic	7	To be confirmed	
Datan Power Plant	Datan Natural Gas Power Generation	10	To be confirmed	
Tongxiao Power Plant	Tongxiao Natural Gas Power Generation as an Alternative for Fuel Oil	10	To be confirmed	

4.1.3 Resource Management

Taipower Material Flow Management Information System

Given the fact that information transparency has become an important indicator of the sustainable development and social responsibility of a company, Taipower has established a company-wide material flow management system (MFMS) for a total of 52 units covering hydro, thermal, nuclear, supply and distribution systems from 2009-2013 for the rapid control of raw materials utilization, pollutant emissions, recycling, and sales of by-products, based on the concept of balancing inputs and outputs. The statistics record material inputs and outputs of the company, and offers insight into usage efficiency and improvement. Thus, Taipower is able to reduce or optimize the use of materials and resources, while also reducing cost and pressure on the environment.

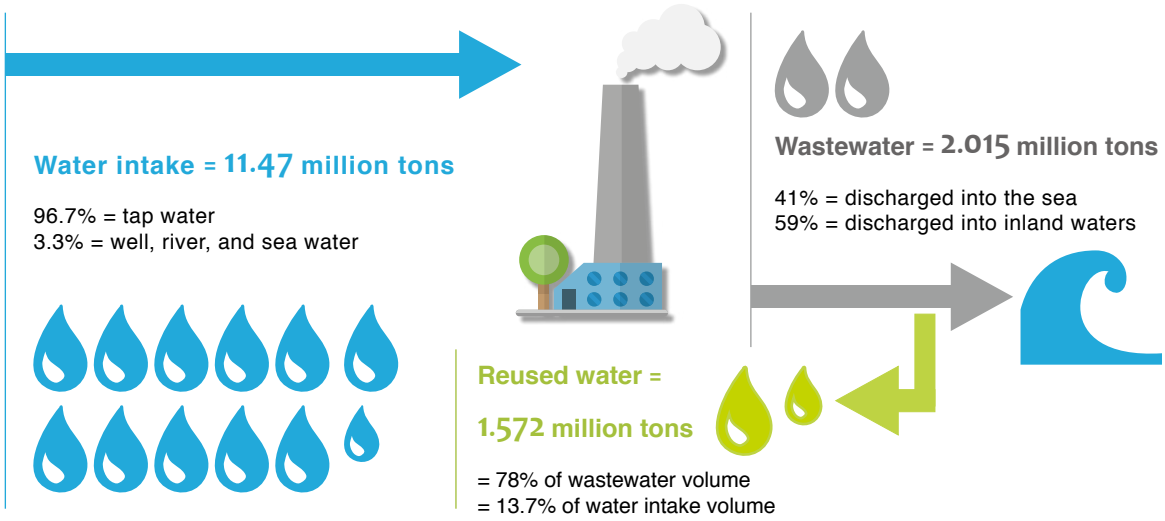
Taipower started recording material inputs and outputs, and their environmental and other benefits in March 2014. In the future, March of every year will be the month when these statistics are to be completed.

Water Resources Management

Although Taipower's materials flow platform covers water consumption statistics, since the platform is still under promotion, the figures for total water consumption and waste water discharge are still unavailable. Currently Taipower has statistics on the water consumption of its thermal power generation; the collection process of these data can be found at the Taipower website (Information Disclosure > Thermal Power Plants Environmental Protection > Sources of Water Pollutant Discharge). Taipower sets targets of water use and water footprints to manage water resources at its power plants. More information on water recycling and reuse measures taken at power plants and their results can be found in Section "4.1.4. Waste Management and Reduction ".

Plant water

To improve the use of water resources, Taipower's power plants, in addition to recovering and reusing part of the boiler water, and some plants have planned measures to collect rainwater to reduce the use of running water, and currently water consumption of thermal power plants has stabilized. Taipower has set targets for water use by thermal power plants, which should not exceed the average volume of the most recent three years. The water consumption of thermal power plants in 2014 was as follows:



Water Performance

2014 Target	2014 Actual
≦ 93.9 tons/GWh	91.6 tons/GWh

For more information about wastewater treatment and recycling information, please refer to the "Wastewater Reuse" unit in Section "4.1.4 Waste Management and Reduction".

Water footprints

Taipower took the initiative to calculate the quantity of water inputs and wastewater outputs of thermal power plants to understand their water resource utilization. In 2013 and 2014, Taipower conducted research under the "Power Generation Water Footprint Inventory Preliminary Project" and chose the Datan and Taichung Power Plants as the designated units for a Phase-I water Footprint Inventory. Results from 2013 indicate the water footprints to be 0.82 tons / MWh and 6.24 tons / MWh respectively.

Unit: tons/MWh

Power Plant	Blue Water Footprint	Grey Water Footprint	Green Water Footprint	Total Water Footprint
Datan Power Plant	0.17	0.65	0	0.82
Taichung Power Plant	0.64	5.60	0	6.24

Notes: 1. Blue water footprint: quantity of surface and underground water needed for generation processes
2. Grey water footprint: quantity of fresh water required for the absorption of pollutants as permitted by law (Water Pollution Control Act)
3. Green water footprint: quantity of rain water consumed for the manufacture of products (i.e. rainwater trapped in soil)

Product Water Footprint Certification

In the future, Taipower will promote and implement the Water Footprint inventory, and extend it to other thermal plants, as well as hydro and nuclear plants.

Energy Management

The power is consumed by ancillary equipment when the generation units are in operation (also called “production power”). In principle, the production power consumption of new units can only be identified after completion of installation. As units aged, their power consumption will gradually increase. Yet through skillful operation, repair, and maintenance, their power consumption can still be kept in check.

In view of this, Taipower makes efforts to manage production power quantities, and sets targets for production power use, which should not exceed the average quantity of the most recent three years. In addition, Taipower actively manages the energy efficiency of thermal units in order to achieve the targets for electricity use by thermal units as approved by the Executive Yuan. Other measures to improve the energy efficiency of thermal units and their results can be found in Section “3.2.1 Thermal Units’ Operating Performance”.

Non-Production Resource Management

Taipower continued implementation of Executive Yuan's “Four Savings Project for Government Agencies and Educational Institutions” (regarding electricity, fuel, water, paper). The company’s target is to reduce consumption of power and oil by 1% and water by 2% every year. Through stimulating all branches and power plants to save energy and reduce emissions, the company has saved nearly 7.7 million kWh of electricity consumption over the past three years. Results of other savings can be found under “Office resource savings” in the unit “Environmental Footprints of Taipower Operation in 2014” in this Section.

2014 Production Power Use by Thermal Power Plants

Production Power Rate		Heat Consumption Rate	
Target	Actual	Target	Actual
≦ 4.09%	3.86%	≦ 2231 kcal/kWh	2218 kcal/kWh

Measures to Save Water, Power, and Oil at the Taipower Headquarters in 2014

Aspect	Measure
Saving water	● A recovery system for rainwater and cooling tower discharge water was set up on the rooftop. The collected water is used for watering plants and cleaning floors. ● Various departments virtualized their servers to reduce the number of stand-alone air-conditioners and reduce the water used by cooling towers.
Saving power	● The indoor temperature was kept at 26-28 °C in summer. ● Various departments virtualized their severs, which reduced the power needed for the server coolers. ● Reduced the use of stand-alone air-conditioners. ● The elevators operate in smart energy modes during certain time periods. ● Various electrical facilities (such as fans and (stand-alone) air conditioners) are now covered by the building’s central monitoring system. ● Hallways are outfitted with high-efficiency LED lights.
Saving oil	● In the case of meetings in Taipei City, employees are encouraged to use public transport to reduce the use of company cars. ● Reservations for company cars or vans are merged if the destinations and times are close together. ● Company cars are centrally deployed and regularly maintained so that idle times is kept to a minimum

Environmental Footprints of Taipower Operation in 2014

Power purchased 50,165 GWh

Total power transmitted to customers 205,956 GWh

INPUT

- Power Consumption

  Coal 26,320.4 thousand tons
  Natural gas 10,898.11 million m^3
  Heavy oil 1,567.7 thousand kl
  Light oil 78.7 thousand kl
  Uranium fuel (U_3O_8) 2.55 million pounds

- Water Use

  Water consumed by thermal power plants 11.47 million tons

- Company-wide office energy usage

  Power consumption 91 GWh
  Oil consumption 45 thousand kl
  Water consumption 1.26 Gl

Power generated 169,058 GWh

Nuclear power plants 40,801 GWh

Thermal power plants 120,818 GWh

Pumped-storage power plants 3,108 GWh

Renewable energy power plants 4,331 GWh

- Company-wide office resource savings

  Power 791 MWh
  Oil -1 kl
  Water 30 kl

OUTPUT

- Emissions from power plants

  CO_2e 84,377 thousand tons
  SO_x 38,103.6 tons
  NO_x 38,917.1 tons
  PM 3,384.1 tons

- Waste Cables 6,532 tons

- By-products from power generation

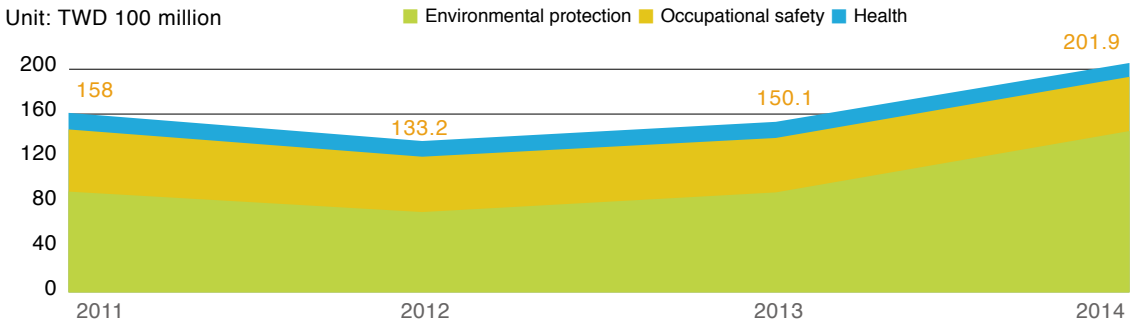
  Coal ash 2,065 thousand tons
  Gypsum 628.6 thousand tons
  Low-level radioactive waste 176 barrels
  Used nuclear fuel Approx. 91.8 tons (457 rods)

Among power procured by Taipower in 2014, 2,490 GWh came from biogas and waste generation (from 27 sources), representing 4.97% of all procured power, and 1.1% of all generated power in 2014.

Environmental Accounting

Since August 2003, Taipower established its environmental accounting system and developed the EAS information platform to be integrated with Taipower's existing accounting operations and information system. This would allow all units to complete their expense reimbursement and collect materials in a timely manner. The system will effectively transform environment-related activities (including environmental protection, occupational safety and health) into financial or accounting information. As of the end of 2007, the system has been promoted in all Taipower units. All environmental expenditure from 2011-2014 is listed below, including TWD 6.180 billion for procurement of renewable energy in 2014, an increase of TWD 5.4 billion from 2013.

Environmental Expenditure 2011-2014



Unit: TWD 100 million

Year	Environmental Protection	Occupational safety	Health	Total
2011	88.7	54.7	14.6	158
2012	70.7	48.7	13.8	133.2
2013	88	47.9	14.2	150.1
2014	142	47.7	12.2	201.9

4.1.4 Waste Management and Reduction

Taipower wastes are being divided into solid waste and waste water. Taipower is committed to reduce, recycle, and reuse its waste as much as possible. When waste cannot be reduced, recycled, or reused, Taipower disposes of it in accordance with the Waste Disposal Act and other relevant laws and regulations.

Taipower recycles waste water from power generation as much as possible, and tracks its waste water recycling rate on a monthly basis. Waste water that needs to be discharged is discharged in accordance with the Water Pollution Control Act and its Sub-Laws. The waste water is discharged through approved outlets. The quality of the effluent water is monitored by a certification body commissioned for the purpose. As for radioactive liquid waste, in addition to complying with the water pollution laws and regulations mentioned above, the Ionizing Radiation Protection Act and its related enforcement rules and regulations are to be complied with as well. Radioactive liquid waste must first be treated through the radioactive waste processing system. The small quantities that cannot be recycled must be filtered and analyzed by random sampling to ascertain that the radiation doses of the radioactive waste are compliant with norms before they can be discharged. Otherwise, the waste is sent to the concentrator where it is heated and reduced into a solid state and stored in barrels.

Regarding the management of warm waste water from nuclear power plants, Taipower has drawn up operational procedures for its nuclear power plants in accordance with the Effluent Standards. These operational procedures clearly stipulate that the discharge port must be 500 meters from the exit point of the plant, and one meter below the water surface, while the temperature difference between the effluent water and the surface water must not exceed 4° C, and must never exceed 42° C. All nuclear power plants have installed temperature sensors and monitoring alerts at their waste water outlets in the sea. Whenever the temperature of the effluent water approaches the limit values, response measures are taken in accordance with the power plant's operational procedures to reduce the temperature of the effluent water.

Reuse of Industrial Waste

Reuse of coal ash

The majority of waste generated from Taipower's thermal plants is fly ash, most of which is reused in civil construction, where it is used to fill trenches. This raises the volume and reutilization rate of the fly ash and reduces the environmental burden. In 2014, coal ash production was 2.065 million tons, of which 1.843 million tons, or 89.2%, was reused. The total sales revenue was TWD 254 million.

Reuse of gypsum

To improve air quality, coal-fired power plants are outfitted with flue gas desulfurization installations which remove sulfur oxides from the flue gas, and use limestone slurry to create gypsum through the chemical processes of absorption, neutralization, oxidation, and crystallization. The resultant raw gypsum ($CaSO_4 \cdot 2H_2O$) can be reused by local cement makers and fire retardant board makers. In 2014, the gypsum output totaled about 629,000 tons, and sales were good.

Bidding for Industrial Waste

Other industrial waste, such as waste wires and cables, metal scrap materials, etc., are being reused by Taipower through waste disposal contractors through an open bidding process. In accordance with government regulations, bidding contractors should be qualified Industrial Waste Processors and perform their reuse operations according to regulations to reduce the environmental risks involved in waste treatment.

Industrial Waste Bidding Quantity

Unit: 1000 tons

Industrial Waste Type	2012	2013	2014
Waste wires, cables and metal scrap materials centralized for auction sales	9.678	5.424	6.532
Coal ash production volume	2,126	2,042	2,065

Note: Reuse after sales through auction.

Industrial Waste Bidding Amount

Unit : TWD 100 million

Industrial Waste Type	2012	2013	2014
Waste wires, cables and metal scrap materials	15.05	8.01	9.58
Coal ash	1.09	1.09	2.54
Total	16.14	9.1	12.12

Wastewater Reuse

While adhering to the concept of water conservation, Taipower has been actively pursuing the goal of zero wastewater discharge. Rainwater collection (power plants and dormitories) and wastewater re-use projects are being promoted, and integral planning has been implemented to reduce the use of tap water inside the power plants.

Due to the excessive salt concentration (that may cause serious corrosions as well as salination of the soil) in the wastewater from the flue gas desulfurization (FGD) process, the recycled water in 2014 was unusable and therefore was not calculated in the total waste water quantity. The main wastewater recycling applications are boiler sealing, demineralizing water, and containing coal dust. Unrecyclable water is treated in accordance with regulatory standards before it is discharged into receiving waters, such as the ocean and rivers. All discharges into receiving waters were approved by the local environmental protection units and complied with the applicable effluent water standards.

Thermal Power Plant Wastewaters Reuse

Unit : 10,000 tons

Item	2011	2012	2013	2014
Reuse of rainwater	15.22	4.35	15.29	16.84
Reuse of wastewater and process water (including boiler blowdown)	179.47	168.66	142.44	157.20

4.2 Building a Sound Working Environment

4.2.1 Workforce Structure Overview

Employee Categories

Taipower employees are all full-time employees. There is no fixed-contract or open-contract personnel, nor foreign nationals. Outsourced labor is divided into “manual outsourced labor” and “manual and service contract labor”. “Manual outsourced labor” is used to fulfill business needs through hiring engineers with technical expertise and managers with management expertise in procurement and contract management. In 2014, 357 such specialists were employed at Taipower’s headquarters. “Manual and service contract labor” includes such service personnel as office assistants, kitchen staff, call center agents, drivers, etc. in all departments. In 2014, 1,070 of such service staff were employed at our headquarters[2].

Employee Category		2012		2013		2014	
Total employees		27,082		26,629		26,533	
Local employees	Male	24,005	88.6%	23,590	88.6%	23,414	88.2%
	Female	3,077	11.4%	3,039	11.4%	3,119	11.8%
Direct personnel	Male	22,395	82.7%	22,065	82.9%	21,898	82.5%
	Female	1,591	5.9%	1,601	6.0%	1,642	6.2%
Indirect personnel	Male	1,610	5.9%	1,525	5.7%	1,516	5.7%
	Female	1,486	5.5%	1,438	5.4%	1,477	5.6%

Note: as distinguished by work nature, “technical” and “operations” in work nature are classified as direct manpower, and “management” in work nature is classified as indirect manpower.

[2] To better understand its HR outsourcing, Taipower started keeping statistics of the gender of outsourced personnel in 2015, which will be disclosed and clarified in future editions of the report.

4.2.2 Labor-Management Communication Channels

Internal Communication

Communication Channel	2014 Performance
Labor-management Meetings	Twenty-two labor-management meetings have been held at company and subsystem levels.
Information and discussion sessions	● A total of four “Information sessions with labor union representatives” and “Information sessions on major labor-management were held. ● Three division-level information sessions to promote communication on overviews were held.
Work floor meetings	224 work floor meetings were held in 2014, where unit heads communicated with and work floor and listened to their concerns.
Thematic presentations	To allow senior executives to communicate the company's upcoming policies, 17 information sessions were held in 2014, on such topics as “Improving business”, “Facing change at Taipower”, and “Communication within Divisions”.
Training	Eighty-seven training sessions on such topics as “Expressing and Managing Emotions” and “Communicating with Generation Y” were held for employees, assistants, and managers in 2014. In addition, two online training courses on “Leadership and Communication in the New Age” and “Work Adaptation in the New Age” went live on the Taipower Intranet on 1 December 2014.
Intranet	● In August 2014 six discussion forums, on “Information Disclosure” and “Promotion issues”, amongst others, were launched to provide a platform for exchanging views and collecting suggestions for improvement. Whenever employees express doubts or have misunderstandings of company policies or regulations, the responsible units reply instantly in order to resolve such doubts and prevent false rumors from spreading. ● In September 2014 a “Transfer Information” section was added to improve transparency on the issue of staff transfers. In 2015, this section will be integrated into the homepage, which is currently being redesigned. ● The “New Hires” and “Activities” sections were added. The “New Hires” section to help new employees understand their rights and interests and understand company channels, while the “Activities” section announces and reports on a variety of activities to bring the company and its employees closer together and strengthen internal communication.

Group Agreement Negotiations

On 24 October 2013, Taipower and the Taipower Labor Union (TLU) signed a Collective Bargaining Agreement (CBA) containing eight sections and 48 articles. To avoid affecting the interests of employees, Articles 39 and 41 of the CBA, while not stipulating minimum notice periods for creating new units or divisions, reorganizations, and mergers, do require that Taipower communicate with TLU in advance and give due consideration to TLU’s opinions.

In 2014, eight consultative meetings were held to implement or clarify articles of the signed CBA. Union membership rates of TLU, which safeguards employee interests, are shown in the table below:

Employees Covered by the Collective Bargaining Agreement

Item	2012	2013	2014
Employees, total	27,261	27,082	26,533
Employees, union members	26,340 (96.6%)	25,954 (95.8%)	26,064 (98.2%)

Note: Personnel of contractors are not employed by Taipower and are therefore not included in this table.

Grievance Complaint System

Taipower's "working personnel difficulty and grievance matter processing guidelines" helps solve issues that cannot be solved through the company's administrative system. The Points cover the following:

- Adjustment of tasks, and transfer to another division, unit, or district, for personal or family reasons;
- Company support in the event of major changes in the family;
- Handling queries and complaints regarding the company's system, measures, contracting and oversight of engineering works, financial and procurement matters, and hand-over inspections;
- Investigation and handling of other complaints.

Difficulties and complaints concerning transfers to new service districts are handled in accordance with the company's "Regulations Governing Personnel Transfers to Service Districts". In addition, every unit has a "working personnel difficulty and grievance matter processing team" to those whose member employees can file their complaints in writing or orally. The team will handle the case and reply to the employee within one month. The Headquarters has a "working personnel difficulty and grievance matter processing committee" to handle cases not handled by the complaint teams on the department level as well as appeal to cases from employees that do not accept the outcomes of the complaint process under their department's complaint team.

The "working personnel difficulty and grievance matter processing guidelines" stipulates that complaints be handled by the "working personnel difficulty and grievance matter processing team" of the department of the employee bringing forward the complaint. If the team concerned cannot handle the complaint or if the employee cannot accept the outcome, it may be brought before the "working personnel difficulty and grievance matter processing committee". Most cases are resolved by the complaint teams at the department level, and in 2014 the "working personnel difficulty and grievance matter processing committee" did not need to be convened.

4.3 Supplier Management

Taipower's suppliers fall into three categories: fuels, materials & equipment, and power suppliers. To safeguard the reliability of the nation's power supply, the company selects suppliers based on their supply capabilities and superior product quality.

As a state-owned enterprise, Taipower's procurement practice complies with the Government Procurement Act and the principles of public interest and fairness. It is not permitted to treat suppliers differently without proper reasons, and procurement decisions must be taken after professional comparison. Suppliers' practices of human rights are handled in accordance with the provisions of Article 98 of the Government Procurement Act. The management mechanisms for the three categories of suppliers are described below.

4.3.1 Fuel Suppliers

Fuel Oil and Natural Gas Suppliers

Taipower currently purchases them from the CPC Corporation and Formosa Petrochemical Corporation, and both are contractors with supply capability and also conform to the relevant governmental laws and regulations.

Suppliers of Coal and Nuclear Fuel

Taipower meets all of its coal and nuclear fuel needs through procurement from foreign suppliers.

In 2014, it procured 25.68 million tons of coal. Among this procurement, Indonesia supplied 17.58 million tons, or 68%, and Australia supplied 8.1 million tons, or 32%. Taipower's coal procurement through fixed-term contracts makes use of selective tendering. In accordance with the provisions of the Government Procurement Act, a shortlist of qualified suppliers must

be drawn up, which must be reviewed and amended annually. When joining a tender, suppliers of coal and nuclear fuel are required to submit documentary proof from the competent authorities of the jurisdictions of their residence in order to ensure that these suppliers comply with the laws and regulations of their jurisdiction, including compliance with the local laws and regulations regarding the environment, human rights, labor matters, and social aspects. For instance, with regards to coal suppliers located in Australia, Taipower abides by and requires their compliance with Australia's norms for environmental protection measures applicable to coal mines of bidding suppliers, protection of the labor rights of coalminers, and communication with the communities around these mines.

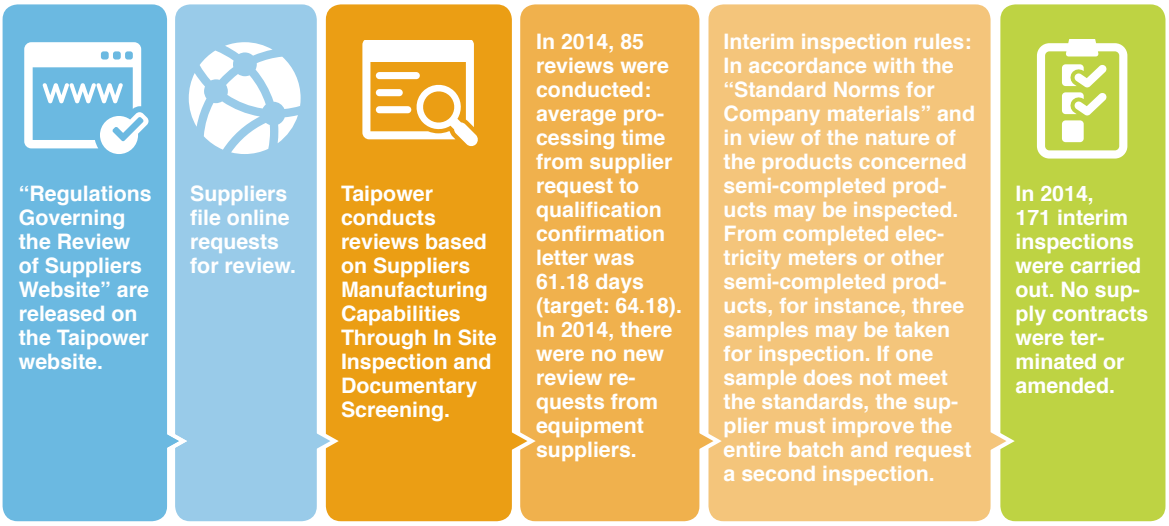
In 2014, a list of qualified vendors on a regular basis contract totaled 44 qualified vendors, including 22 in Australia, 15 in Indonesia, 2 in China, 2 in Russia, 1 in South Africa, 1 in the United States, and 1 in Canada.

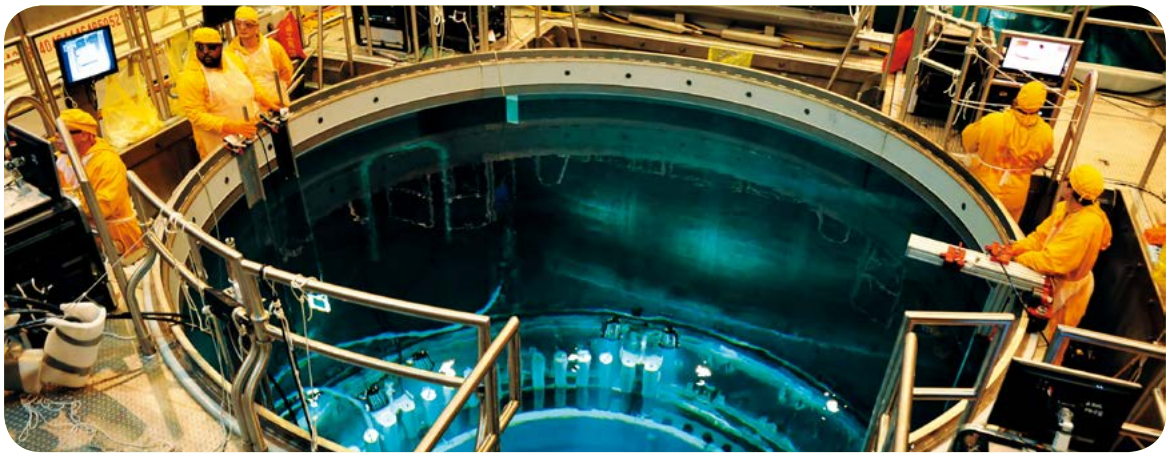
4.3.2 Suppliers of Materials and Equipment

Qualified Suppliers of materials and equipment must submit documentary evidence of their qualifications (such as factory registration) for examination, and then they can be included in the supplier list. Under the Government Procurement Act, and Points of Attention for the Review of Manufacturing Capabilities and Management of Qualified Suppliers of Electrical Equipment to Taiwan Power Corporation Ltd., Taipower opens selective tenders for important electrical equipment.

Procurement of electrical equipment (such as cables and gas-insulated switchgear) must comply with government policy, such as the "power equipment localization policy". Therefore, important components must be produced, assembled, or cut in domestic factories, and Taipower will evaluate supplier bids on this aspect. In the case of switching to domestically-produced cables, Taipower currently procures 100% of its cables from domestic suppliers.

Taipower's selection process of qualified manufacturers and actual performance in 2014 is as follows:





4.3.3 Power Suppliers (IPP Operators)

Phase-one and phase-two deregulating private operators to set up power plants in restricted areas, and by year and capacity to present the power purchase needs, and those in the northern power needing region (north of Lungtan E/S) are eligible to participate in electric pricing comparison bidding with priority, where the procurement process succinctly includes a power supplier filling the local (power lacking area) demand with priority. In addition, IPP operators need to abide by the pertinent labor laws, regulations and guidelines.

4.4 Enhancing Nuclear Communication

4.4.1 Nuclear Safety and Crisis Response

◆ Planning for Nuclear Safety

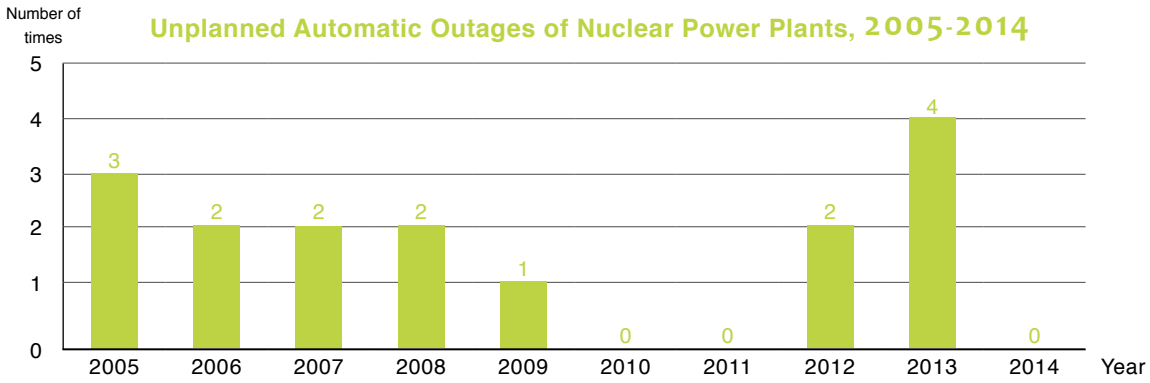
■ Ensuring nuclear safety

Performance in 2014	Future Focus
● Nuclear, radiation, and occupational safety were strictly enforced. Workplace safety inspections were stepped up. “Management by Walking Around” was practiced to enforce the Taiwan Occupational Safety and Health Management System (TOSHMS), and to identify high potential hazards and implement operational management to detect, anticipate, and pre-empt risks. ● Each nuclear power plant has completed ISO 14000 verification, and has established an effective environmental management system to seek continuous improvement in reaching environmental protection and pollution prevention targets. ● All nuclear power plants have operational procedure manuals that specify all types of operation and management standards. To enhance management of nuclear power plants, and improve operational performance and security, Taipower promotes the “Sixth Five-Year Nuclear Operational Plan”, “Measures to Strengthen Nuclear Energy Operations”, including “Scheduling and Quality of Sophisticated Overhauls”, “Preventive Measures to Reduce Human Error”, “Strengthen Maintenance of Key Components, Improve the Reliability of Equipment”, and “Strengthen the Oversight Function of the Headquarters over the Department of Nuclear Energy”. ● On 25 July, a safety inspection and trial run of Reactor 1 of the Lungmen Nuclear Power Plant were completed. ● Work to improve the seismic resistance and layer-2 safety shutdown of Nuclear Power Plants No. 1, No. 2, and No. 3 was completed. ● The Boiling Water Reactor Owners Organization and the Pressurized Water Reactor Owners' Organization affirm the effectiveness of the disposal of Taipower.	● Handle the nuclear waste and decommissioning plans to seek a breakthrough in nuclear back-end operations. ● Strengthen governance and oversight of headquarters, and enhance management efficiency. ● Enhance nuclear safety culture and ensure the safe and stable operation of units to improve operational performance. ● Take nuclear safety culture to a new level as well as extend to all employees, support staff, and contractors. ● Manage major repair, upgrading equipment reliability and expand nuclear energy benefits. ● Strengthen power plant management and implement risk control and asset management. ● Strengthen communication on nuclear energy. ● Replace major equipment of nuclear power plants. ● Continue implementing five-year nuclear operational plans. ● Create a mechanism for staff to share and study experiences in order to reduce human error.

■ Nuclear safety operating performance

All nuclear power plants of Taipower abide by the practices described above in order to safeguard nuclear safety. To further manage and control operational safety at its nuclear power plants, Taipower employs the Nuclear Safety Mechanism of the Atomic Energy Council (AEC), whereby nuclear power plants’ safety systems performance is recorded each quarter and published on the Nuclear Safety Mechanism section of the Taipower website. Throughout 2014, Taipower’s nuclear safety indicators stayed in the green zone (green light designates the best performance).

The six power generation units of Nuclear Power Plants No.1, No. 2, and No. 3 generated 40.8 TWh in 2014, with a capacity factor of 93.75%. The Taipower website (Information Disclosure section > Nuclear energy operations and performance > Nuclear Energy Power Generation Performance). In 2014, none of the six nuclear power generation units shut down due to unplanned outage. Unplanned outages over the past ten years are shown in the table below:

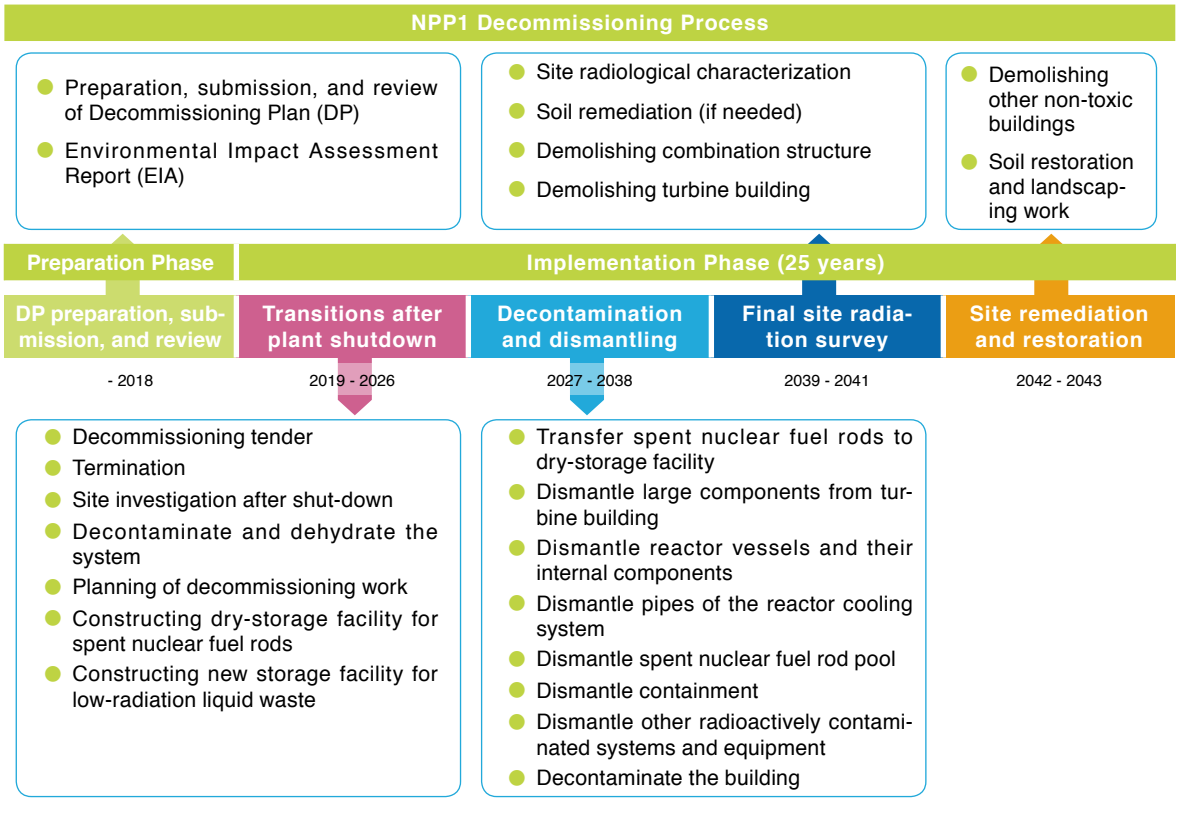


Decommissioning Plan

Decommissioning regulations and planning principles

According to the Nuclear Reactor Facilities Regulation Act, the phase out of a nuclear power plant shall be completed since its operation has been fully terminated in 25 years, including the demolition of the facilities. Three years before the permanent shut-down of nuclear reactor facilities, operators must propose a decommissioning plan.

In accordance with this law, Taipower has begun planning for the decommissioning of Nuclear Power Plant No. 1, giving due consideration to “the feasibility of technology”, “decommissioning safety”, “cost-efficiency”, and “needs in actual operation”. A comprehensive investigation is currently conducted to ensure that the decommissioning will proceed under optimum arrangements and in full compliance with applicable laws and regulations. The decommissioning plan is expected to be submitted to the AEC by December 2015.



Decommissioning process and progress

To execute the decommissioning plan, Taipower has an official task force with the Department of Nuclear Back-End Management (DNBM), which has coordinated cross-departmental work associated with the decommissioning plan of the NPP1 in 2012, and actively participates in such international organizations as the Electric Power Research Institute (EPRI) and the Co-operative Programmed for the Exchange of Scientific and Technical Information Concerning Nuclear Installation Decommissioning Projects (CPD) of the Nuclear Energy Agency (NEA), the specialized agency within the Organization for Economic Co-operation and Development (OECD). Through these international organizations, it enables Taipower to work with advanced countries, visit power plants in various stages of decommissioning, and collect decommissioning reports.

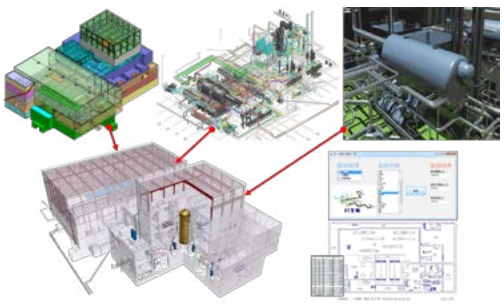
Taipower's current decommissioning activities include establishing a quality assurance program; developing a quality assurance manual; completing a strategic analysis and planning to design the radiological site characterization for the NPP1 site (using the method of the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM; NUREG-1575) of the United States Nuclear Regulatory Commission (USNRC) to confirm the scope and extent of residual radioactive and hazardous substances; calculating estimates of radioactive waste volumes; creating a decommissioning information management system (ongoing); and building a 3D model of the entire facility.

Decommissioning costs and capitals

The dismantling and decommissioning cost of nuclear power plants is estimated at TWD 67.5 billion (Nuclear Power Plant No. 1: TWD 18.2 billion; Nuclear Power Plant No.2: TWD 24.2 billion; and Nuclear Power Plant No. 3: TWD 25.1 billion; excluding the final treatment of dismantling materials). Based on the user-pays principle, Taipower has been funding for nuclear energy back-end operations since 1987 with approval from the Executive Yuan. As of the end of February 2015, the fund had accumulated TWD 244.7 billion. In addition, every five years or whenever there are major changes in technology, regulations, or the scale of nuclear power generation, Taipower recalculates the total cost of nuclear back-end operations, and it quarterly recalculates the rate of assessment of nuclear power generation to ensure that funds for back-end operations will be sufficient.

Land reuse after decommissioning

As the final storage of radioactive waste has not been constructed yet, the radioactive waste arising from decommissioning operations will be stored on the power plant site. Therefore, the site is divided into the restricted area and the non-restricted area. The restricted area has treated for storage facilities of dry and low-level radioactive waste from spent fuel rods. The non-restricted area will be used for a new power plant and a memorial park.



Measures for Strengthening Nuclear Safety

Adoption of "Defense in Depth" safety design principle

Taipower adopts the concept of "defense in depth" for the safety design of nuclear power plants in order to ensure nuclear safety. The concept is to establish multiple layers of defense shields, with every layer containing independent and multiple security facilities or measure. Even though one or two defense shields may possess ample functionalities to fully prevent releasing of fission products from nuclear reactions, the safety design of the nuclear power plant requires that, should any one layer of defense shield fail for any reason, the other layer of defense shield will still provide security and protective defense functionality. The purpose of multiple layers of defense is to reduce the probability of nuclear incidents within the nuclear plant, and to mitigate the impacts of it.

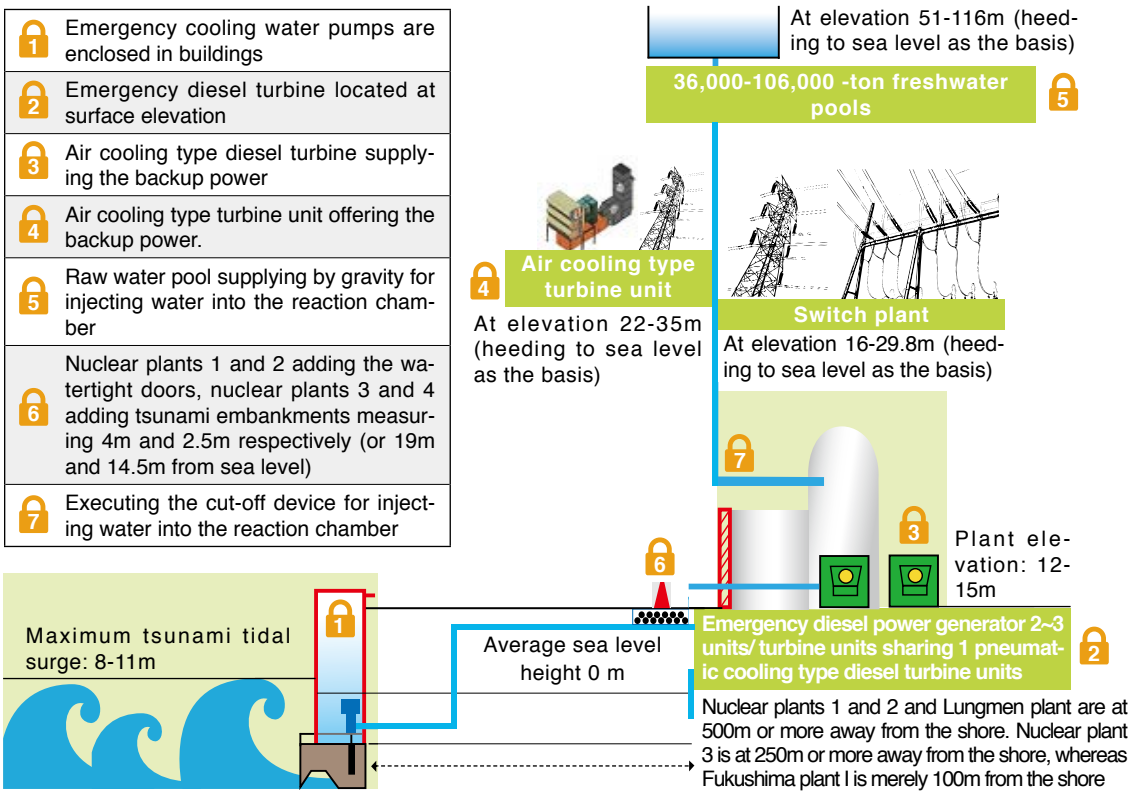
The layers of defense in depth to prevent the release of nuclear fission products include:

- Fuel pellet: The nuclear fuel is solidified into pellet forms. The nuclear reaction takes place within these pellets, and most radioactive substances will remain at the location where the nuclear fission takes place.
- Fuel rod: Consist of a zirconium alloy to effectively contain radio-active substances in the cladding.
- Connection between the reactor pressure vessel and the closed coolant system: This will ensure that fission products will be contained in the closed coolant circulation system.
- Containment building: The containment structure (building) ensures that most radioactive substances from the reactor or cooling system are isolated from the outside environment.

After the Fukushima nuclear disaster, Taipower has assessed its nuclear power plants and determines the specific advantages (as shown in the figure below) that will offer adequate resistance against earthquakes and tsunamis.

Taipower Nuclear Power Plant Multi Disaster Prevention Safety Depth Advantages

1	Emergency cooling water pumps are enclosed in buildings
2	Emergency diesel turbine located at surface elevation
3	Air cooling type diesel turbine supplying the backup power
4	Air cooling type turbine unit offering the backup power.
5	Raw water pool supplying by gravity for injecting water into the reaction chamber
6	Nuclear plants 1 and 2 adding the watertight doors, nuclear plants 3 and 4 adding tsunami embankments measuring 4m and 2.5m respectively (or 19m and 14.5m from sea level)
7	Executing the cut-off device for injecting water into the reaction chamber



Nuclear protection and safety examination

After the Fukushima's accident on 11 March 2011, Taipower immediately set up a task force to conduct safety examinations and stress tests at Nuclear Power Plants. The design of the plants, the equipment protection and response capabilities were reexamined. The structural seismic tolerance of important safety buildings of the power plants were analyzed, topographic surveys of the land and sea near each nuclear power plant were conducted, and the tsunami design standards and the safety level of power plant facilities as described in the Final Safety Analysis Report (FSAR) were reviewed further. In the meantime, the Atomic Energy Commission has completed the safety examinations of Nuclear Power Plants on schedule. The findings confirm that Taiwan's three nuclear power plants do not present any grave or immediate safety concerns; however, every plant will strengthen its safety design due to the Fukushima accident. The improvements in the safety design count 96 measures, 95 of which had been implemented by the end of 2014.

In order to ensure nuclear safety, each nuclear power plant also completed the stress tests that are applied to nuclear power plants in the European Union and Japan in order to further review the aforementioned defense-in-depth capabilities, safety margins, and the results from the nuclear safety examinations. The AEC also reviewed the responses of the United States, Japan, and the European Union to the Fukushima accident. From 2012 onward Taipower has continually implemented additional safety measures (stage-2 management and control after the nuclear safety examinations). In 2014, the European Nuclear Safety Regulators Group (ENSREG) made seven recommendations to Taipower in a peer review, thus raising the company's additional safety measures under stage-2 management and control to 44 measures. As of the end of 2014, six of these had been completed, while 38 were in progress.

Reinforcing control measures

Taipower has made extra efforts to maintain stable operations of its nuclear power plants as part of its mission to safeguard the company's assets and the safety of the population, other than complying with nuclear safety laws & regulations. These additional efforts include maintaining close communications and cooperation with such international bodies and organizations as the International Atomic Energy Agency (IAEA), the Institute of Nuclear Power Operations (INPO), and the World Association of Nuclear Operators (WANO) in order to refine its safety management, to be in line with the international practice, and to continue raising the nuclear safety.

Recent safety management programs have included:

- Dispatch domestic and foreign experts to participate in filed visits to strengthen overall safety and protection (WANO, etc.);
- Adjust nuclear safety strategies and improve its effectiveness upon nuclear power plant safety meetings and periodically review personnel performance;
- Continue with the nuclear safety liaison meetings to monitor the operations and status of nuclear power plants so that the headquarters may offer immediate assistance to eliminate risks and keep the units running steadily;

- Make nuclear power plant directors, managers, and team leaders manage by walking around, observing and participating in on-site work to direct practices as needed and prevent negligence to enhance staff performance.

Emergency response mechanism at the nuclear power plant

Taipower's radio-active accident response scheme covers:

Category		Description
Regular preparations	Implementing response operating exercises	The Nuclear Power Plant Emergency Response Committee staff keep training to update their technologies. The emergency response training includes general training, biannually, and specialist training annually.
	Implementing response operating drills	Every nuclear power plant has to conduct a drill annually. Taipower, central and local governments, military, police, and medical units all participate in the nuclear safety exercise that is by turns held at each nuclear power plant. In addition to its authority, Taipower also invites professionals and scholars to form an evaluation group to assess exercises on each response measure to make the emergency response plan more effective. In 2014, the "20th Nuclear Safety Exercise" was held, and emergency drills were held at Nuclear Power Plants Nos. 1 and 2 in June and October respectively.
	Establishing emergency response readiness performance indicators	Each nuclear power plant conducts the "Emergency Readiness Performance Indicators" and the results are reported quarterly to the Atomic Energy Council (AEC) as part of the control measures of the AEC for ensuring the safe operation of the nuclear power units. Related performance indicators including: ● Drills/ exercise performance. ● Participation in drills of the emergency response organization. ● Reliability of the warning and reporting system.
Response to accidents	Adopting emergency response measures	● In the event of a nuclear accident, nuclear power plants shall comply with the relevant procedures to perform specific rescue operations. ● Establish the Central Disaster Response Center for Nuclear Accident, Nuclear Accident Radioactive Monitoring Center, Nuclear Accident Disaster Response Center and Nuclear Accident Support Center to jointly carry out various rescue operations, to keep the public safe, and to effectively control the accident and the neighboring residents and environments stand to be jeopardized.
Post-accident recovery operations	Damage appraisal and recovery measures	● After verifying the cause of a nuclear accident and performing all emergency response measures and confirming it is irrelevant to a nuclear accident, the emergency response center will be dismissed. ● After receiving the notification from the Nuclear Accident Recovery Measure Promotional Commission, Taipower will assign relevant tasks to different units to evaluate the facility damage and recovery/restoration of the facilities and the neighboring environment. ● The Emergency Control Chief will evaluate the status of the power plant before issuing the order to set up the plant recovery team and commence the recovery operations.

4.4.2 The Issue of Nuclear Power Plant No. 4

Sealing of Nuclear Power Plant No. 4

Origin

The Legislative Yuan decided to suspend construction on Nuclear Power Plant No. 4 ("NNP4") on 26 February 2013, except for contracts already awarded and safety inspections. Jiang Yihua, the former Premier of the Executive Yuan, announced in an international press conference on 28 April 2014 that unit 1 of NNP4 will be mothballed once pre-operational safety checks are completed. Construction of unit 2, meanwhile, will be suspended immediately.

Responses

In keeping with the government's instructions to mothball NPP4, Taipower mapped out three different strategies: keeping NPP4 available for future commission and minimize costs; strengthening nuclear communication during this period; and making preparation for commercial operation. Based on the Principles for mothballing Nuclear Power Plants from the AEC, Taipower submitted the NPP4 Mothballing Plan to the Executive Yuan on 29 August 2014, and earned approval for its Detailed Mothballing Plan.

Mothballing Strategy	Implementation Status
Keep NPP4 available for future commission, and minimize costs.	Mothballed nuclear power plant with a small costs and retain high-value assets; temporary mothballing operations to 3-year plan which budgeted NTD 4.009 billion in 2015, including suspension compensation of NTD 2.729 billion and relevant costs of NTD 1.28 billion.
Use the mothballed period to strengthen nuclear communication.	In order to communicate with its stakeholders, Taipower has participated in 4 televised debates and political commentary programs. Taipower also produced a total of 5 promotional kits, 20 promotional videos, 2 print advertisements, 46 online promotional campaigns and 16 radio advertisements in 2014.
Make preparation for commercial operation.	In January 2015, Taipower will engage in mothballing operations. The mothballing is expected to complete on 1 July 2015 until holding a referendum.

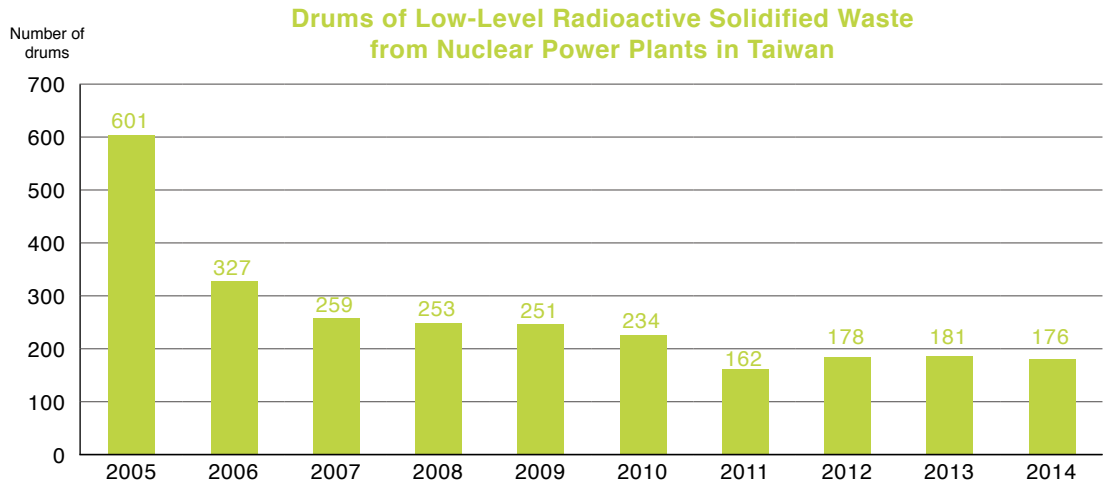
Engagement Channels and Results in 2014

Engagement Channel	Participant	Session	Purpose and Issue
International forums	US nuclear expert Professor Jun Hong An , former University of Tokyo president, Professor Ma Lange, Mr. Hosoda Hiroyuki and Mr. Hosoda Kenichi, Japanese Congressmen, and Dr. J. S. Armijo, former US Nuclear Regulatory Commission Nuclear Power Plant Safety Advisory Committee Chairman.	3	Provide information on the nuclear energy restart in Japan, nuclear waste treatment in the US and France, and enhance the trust of the people that nuclear waste treatment can be done properly.
Speech and presentation	Universities, business groups, administrative bodies, trade union members and their dependents.	288	Enhance external support for energy diversification and reduce nuclear safety concerns.
Visit program at the Longmen Power Plant	Government agencies, people representative, civil society, the public, media, employees, etc.	166	Through site visits, it enables the visitors to earn the correct information on nuclear and further support the Lungmen program.

Taipower's Nuclear website offers further information on the mothballing of NPP4 and other nuclear issues, including real-time data, and research reports. In sum, comprehensive communication can reduce nuclear safety concerns in society, enhance public support for energy diversification, and achieve the goals of reliable power supply, reasonable prices, and sustainable development.

4.4.3 Nuclear Waste Disposal

The low-level radioactive waste generated by the nuclear power operations can be incinerated, compressed, or solidified, and stored properly in zinc-coated barrels. Under Taipower's strict control, the total solid wastes from all nuclear power plants came to 176 barrels in 2014 (2nd lowest quantity in record).



Each nuclear power plant has radioactive waste storage capacity sufficient for the entire lifecycle of the plant. In the future all low-level radioactive waste will be disposed of to the final disposal site.

In addition to achieving the objectives of three five-year operating periods (1989-2003), from 2004 onward, "low-level radioactive waste reduction" has been introduced to the key performance indicators. As of 2014, in the objectives of the sixth five-year operating period, nuclear power plants are required to have a "Low-Level Radioactive Waste Reduction Plan" and a dedicated task force to implement it.

4.5 Strengthening Stakeholder Engagement and Information Transparency

4.5.1 Stakeholder Concerns and Engagement Performance

Stakeholder	Channel of Communication	Issue of Concern and Communication	Key Achievement in 2014	Department in Charge
Private body	● Press release, brochure ● Correspondence ● Inbound/site visit, outbound visit ● Public hearing/information session ● Internal and external communication meeting	Stakeholder communication and information transparency	● Two meetings were held between Xingda Power Plant and the nearby Wulintou Community Development Association to discuss the issue of coal storage.	Department of Generation
			● 159 visits to national industry associations. ● Taiwan Electricity Industry Engineering Association Conference was held on 4 December 2014.	Department of Business
		Resource management	● Participate in the 2nd Cross-Strait Environmental Testing Technology Conference held by the Taiwan Environmental Laboratory Association on 3 May 2014.	Department of Environmental Protection
		Nuclear communication	● Receive 166 visiting groups at NPP4. ● Hold/Attend 288 events on nuclear energy. ● Hold three international forums: ■ “Nuclear Yes or No” with 150 participants on 14 January 2014 ■ “Restart of Nuclear Power in Japan” with 200 participants on 27 April 2014 ■ “From Sustainable Development of Nuclear to view a Fuel Perspective” with 350 participants on 5 December 2014	Nuclear Communication Task Force

Stakeholder	Channel of Communication	Issue of Concern and Communication	Key Achievement in 2014	Department in Charge
Government / Competent authorities	● Board of Directors meeting (monthly) ● Correspondence ● Review/ examination meetings/ hearings ● Conferences/ seminars ● Research programs ● Site/expert visits	Financial performance	● "Operating Improvement Progress" report submitted to MOEA monthly ● Participate in the "Taipower and CPC Operating Improvement Task Force" meetings held by MOEA to report and discuss operating improvements 3 times.	Department of Corporate Planning
		Tariff rationalization	● Participate in the "Conference on Cooperation after Government Policy-Based Tariff Reductions Are Incorporated in the Budgets of Various Ministries and Commissions" in July 2014, where the Ministries of Interior Affairs, Science and Technology, Transportation and Communication, Economic Affairs, Justice, Education, Labor, Health and Welfare, and the Council of Agriculture, Executive Yuan agreed to allocate funding for electricity tariff subsidies in their budgets as of 2015.	Department of Business
			● The Executive Yuan held two meetings to review the new calculation formula for electricity tariffs. The formula was approved by the Legislative Yuan on 20 January 2015.	Department of Accounting
		Stakeholder communication and information transparency	Amend the "Implementation for Power Development and Operation Subsidies"(Implementation) ● The Implementation was amended to expand their scope to branches of municipalities, comply with five municipalities relocated, and ensure the well-being of the residents of communities near power plants.	The Committee of Aid Fund for Promoting Power Development and Operation
		Improvement of energy mix	● Attend and provide information on the energy resources mixture meeting held by the government.	Department of Power Development
		Energy efficiency	● Attend the "Conference on the Amended Proposal for Emission Standards for Air Pollutants from Electricity Equipment" organized by EPA on 22 January, 2014. ● Attend the "Conference on the Air Pollutant Volume Management and Control Project" organized by MOEA on 10 November, 2014.	Department of Environmental Protection
		Energy management	● Attend the "Public Hearing and Consultative Conference on Environmental testing Standards" organized by EPA on 28 May, 2014. ● Attend the "Consultative Conference on the Progress of the Internet Connectivity Installation of Automatic Water Quality Testing and Monitoring Devices" by EPA on 7 July, 2014. ● Attend a public hearing regarding the draft "Regulations Governing Kaohsiung Environmental Protection Management Autonomy" organized by the Environmental Protection Bureau Kaohsiung City Government on 9 July, 2014.	Department of Environmental Protection

Stakeholder	Channel of Communication	Issue of Concern and Communication	Key Achievement in 2014	Department in Charge
Government / Competent authorities	● Board of Directors meeting (monthly) ● Correspondence ● Review/ examination meetings/ hearings ● Conferences/ seminars ● Research programs ● Site/expert visits	Supply chain management	● Announce Taipower's pursuit for competition of manufacturers and suppliers. ● Propose a new supplier evaluation under the provision of the Government Procurement Act to increase the number of bidding suppliers.	Department of Materials
		Stakeholder communication and information transparency	● The Xingda Power Plant communicated with the State Enterprise Commission, MOEA, and the 6th River Management Bureau, Water Resources Agency, MOEA, regarding reinforcement work for the leaky sea barrier of Jiading District in Kaohsiung City twice. ● The Xingda Power Plant communicated with the Kaohsiung City Government and the Ministries of Internal Affairs and Economic Affairs regarding the salt wetlands near the power plant five times. ● The Xiehe Power Plant communicated with EPA and the Fire Department regarding environmental affairs and fire prevention twice. ● The Dongbu Power Plant communicated with the Hualien Irrigation Association regarding the irrigation water shortage in Ji'an District once. ● After the Kaohsiung gas explosion disaster, the Nanbu Power Plant communicated with the Kaohsiung City Government regarding the renewal of natural gas pipelines six times.	Department of Generation
		Nuclear communication	● Participate in the "20th Nuclear Safety Exercise 2014" led by AEC on 22 July 2014.	Nuclear Power Plants Emergency Response Committee
			● Receive groups to visit NPP4, organized NPP4 communication activities, and an international forum on nuclear energy; detailed statistics in Nuclear Communication under Private Organizations was provided in this chart.	Nuclear Communication Task Force
		Reliability and quality of power supply	● Report to AEC on power supply reliability monthly.	Department of System Planning
			● Report to AEC, SEC, and the Mining Affairs Bureau on fuel prices monthly.	Department of Fuels
			● Report to AEC on the progress of smart grid construction monthly.	Department of Power Supply

Stakeholder	Channel of Communication	Issue of Concern and Communication	Key Achievement in 2014	Department in Charge
Government / Competent authorities	● Board of Directors meeting (monthly) ● Correspondence ● Review/ examination meetings/ hearings ● Conferences/ seminars ● Research programs ● Site/expert visits	Organizational transformation	● Propose the "Comparison of Draft Amended Provisions of the Electricity Act between Taipower and AEC" (14 articles) to AEC for reference during the review of the Electricity Act by MOEA on 28 January, 2014. ● Participate in meetings on 26 February, 20 March, and 14 April with the Executive Yuan to review the amendments of the Electricity Act, and provide information and opinions during the meetings. ● Invite AEC to discuss the amendments to the Electricity Act on 24 April and 12 November of 2014 respectively to discuss implementation responsibilities regarding the smart grid, the schedule to separate power plants and the grid, the direct access to generators, and the competition issues in a liberalization, as well as put forward Taipower's views and suggestions regarding the amendments. ● On 11 June, Mr. Deng Zhenzhong, minister without portfolio, led a delegation to visit Taipower's Department of System Operation to investigate the necessity of establishing an independent power dispatch center. ● In a meeting convened by the Executive Yuan on 16 October, the Chairman expressed Taipower's concerns and objectives with regards to the Electricity Act and impressed the competent authorities to create a correct and overall package.	Department of Corporate Planning
People's Representatives	● Correspondence ● Press releases, brochures ● Internal and external conferences ● Public hearings/information sessions ● Inbound/site visits, outbound visits	Stakeholder communication and information transparency	● Legislator Lin Chia-lung visited the Deji Sub Power Plant once to inquire the water matters. ● The Dongbu Power Plant people communicated twice with Legislator Wang Tingsheng and Hualien County Councilors Li Qiuwang and Xu Xueyu regarding the handling of the 1.8 km landslide repairs along Longtong Road (affecting access to the Muguyugu Canyon of the East Rift Valley National Scenic Area. ● The Nabu Power Plant people paid a visit to Kaohsiung City Councilor Lin Wanrong and Legislator Ye Jinling on the topic of natural gas pipeline renewal in the wake of the Kaohsiung gas explosion accident. ● Taipower Vice-president Chen Pu-tsan and the Nanbu Power Plant director personally inspected the renewal work for natural gas pipelines at the Nanshen Power Plant, and paid visits to Legislator Lin Guozheng and County Councilor Lin Wanrong on the subject.	Department of Power Generation

Stakeholder	Channel of Communication	Issue of Concern and Communication	Key Achievement in 2014	Department in Charge
People's Representatives	● Correspondence ● Press releases, brochures ● Internal and external conferences ● Public hearings/information sessions ● Inbound/site visits, outbound visits	Stakeholder communication and information transparency	● Prepare research briefs for Legislators, their research assistants, and cadre of parties and NGOs. ● Arrange 17 visits by the Chairman and President to legislators on the topic of rationalization of electricity tariffs. ● Top management of Vice-President level had 85 meetings with legislators. ● Attend 666 meetings with Legislators to provide information on topics of their concern. ● Follow up on questions, decisions, and monitoring from those meetings.	Department of Public Relations
		Reliability and quality of power supply	● Provide draft and express concerns to people's representatives at various occasions, on the topic of power supply reliability, and keep communication to alleviate uncertainty.	Department of Power Supply
		Nuclear communication	● Organize in-house visiting programs to NPP4, NPP4 communication events, and an international forum on nuclear energy; detailed statistics are given in Nuclear Communication under Private Organizations in this chart.	Nuclear Communication Task Force
Shareholders	● Financial statements (every 6 months) ● Shareholders meeting (annually) ● Taipower website and Market Observation Post System (MOPS) ● Media briefings ● Internal and external conferences ● Site/expert visits	Financial performance (such as: financial operations, dividend distribution)	● Disclose relevant information on Market Observation Post System and "Shareholders" of Taipower's Website. ● Convene one shareholders' meeting on June 20, 2014.	Department of Finance
Customers	● Questionnaires ● Press releases, brochures ● Conferences, seminars ● Public hearings/information sessions ● Opinion box, service hotline ● Site/expert visits	Reliability and quality of power supply	● Power transmission equipment was replaced and renewed, which improved power supply reliability; further details are given in Section 5.1.1 of this report.	Department of Power Supply
		Improvement of energy mix	● The Information Disclosure section (on future power supply and demand) was updated regularly.	Department of Power Development
		Stakeholder communication and information transparency	● Visited 74,683 households. ● 1911 call agents in Taipower's service centers handled 1.53 million phone calls (92.68% of it was answered within 20 seconds). ● 4,676 emails with customer feedback were handled.	Department of Business
			● Information Disclosure section, on operations, power generation, power supply and demand, etc. was updated regularly.	Department of Corporate Planning

Stakeholder	Channel of Communication	Issue of Concern and Communication	Key Achievement in 2014	Department in Charge
Customers	● Questionnaires ● Press releases, brochures ● Conferences, seminars ● Public hearings/information sessions ● Opinion box, service hotline ● Site/expert visits	Demand management	● An online service for high-voltage customers was launched on 1 October, 2014. By year's end, 187 major customers had registered.	Department of Business
		Nuclear communication	● Organize in-house visiting programs to NPP4, NPP4 communication events, and an international forum on nuclear energy; detailed statistics are given in Nuclear Communication under Private Organizations in this chart.	Nuclear Communication Task Force
Partners	● Internal forms/engineering diary ● internal and external conferences ● Education and training ● In-bound calls, interviews, talks	Supply chain management	Materials: ● Draw up a Supplier Classification System of important equipment, and develop partnership relations to raise the quality and efficiency of procured goods, and urge fair competition among suppliers. ● Assess the possibility of third-body review and testing of suppliers. ● Improve the efficiency of final acceptance. ● Unify the key materials and standardize spare parts. ● Collect data on defective products in feedback system as a reference for quality improvement. ● Hold quarterly meetings of the Taipower Materials Management and Control Task Force ● Company-level materials were collected and distributed centrally (Classic Delivery from the company's warehouses in North and central Taiwan; Direct Distribution to specific locations from manufacturers after passing final quality inspection).	Department of Materials
			Fuels: ● Every April-August contract renewal meeting was held to discuss new long-term coal supply contracts. ● Under the 'Taipower and CPC Contact and Early-Warning Mechanism for Fuel Oil Supply and Demand' (at least one meeting per year), both companies met on 18 June 2014 to discuss fuel oil supply and demand during the summer season. ● Under the 'Taipower and CPC Contact and Early-Warning Mechanism for Fuel Oil Supply and Demand' (at least one meeting quarterly), both companies held meetings in turns.	Department of Fuels
			● Power procurement from IPP operators depends on contract performance and negotiations.	Department of Business

Stakeholder	Channel of Communication	Issue of Concern and Communication	Key Achievement in 2014	Department in Charge
Partners	● Internal forms/engineering diary ● internal and external conferences ● Education and training ● In-bound calls, interviews, talks	Stakeholder engagement and information transparency	● After the Kaohsiung gas explosion, the Nanbu Power Plant communicated six times with China Petroleum Corporation regarding the shutdown of natural gas pipelines and follow-up handling.	Department of Generation
		Improvement of energy mix	● Finalize feasibility study on the renewal of the Houli Units of the Dajia Power Plant. ● Finalize amendments to the Wanli Hydro Power Plant Feasibility Study. ● Commission Chi Hsin Corporation to implement feasibility studies for the Datan Power Plant Natural Gas Combined Cycle Generator Unit Addition project and the Xingda Power Plant Overall Overhaul Program and Phase-I Project. If these projects are feasible, they will improve the company's energy sources mixture and raise the overall power supply capacity of the system.	Department of Power Generation
Residents / General public	● Financial statements (semi-annually) ● Public hearings/information sessions ● Site/expert visits ● Inbound visits, email, opinion box, service hotline ● Taipower and MOPS ● Media briefings, press releases ● Brochures, educational movies	Energy efficiency	● On 20 June 2014, an information session & public hearing on the Taiwan - Penghu 161kV Cable Project was held at the Kouhu Township Hall in Yunlin County.	Department of Environmental Protection
		Demand management	● Energy-conservation meetings was held in 201 communities in Taiwan, as well as the offshore. ● Organize 1,368 seminars on electricity consumption, easy repairs and maintenance of household equipment, and electricity saving.	Department of Business
		Nuclear communication	● To improve the public's understanding of energy issues and nuclear safety, Taipower created five new brochures on these issues, 20 short movies for international forums, two documentaries, two print advertisements, 46 internet advertisements, and 16 television advertisements. ● Organize in-house visiting programs to NPP4, NPP4 communication events, and an international forum on nuclear energy; detailed statistics are given in Nuclear Communication under Private Organizations in this chart.	Nuclear Communication Task Force
			● Participate in the "20th Nuclear Safety drill 2014" held by AEC and local governments. Emergency drills were held at Nuclear Power Plants No. 1 and No. 2 in June and October respectively. ● All three power plants participated in a total of 231 communication/visits with local communities, and a total of 68 communication/visits with local educational institutions.	Department of Nuclear Generation

Stakeholder	Channel of Communication	Issue of Concern and Communication	Key Achievement in 2014	Department in Charge
Residents / General public	● Financial statements (semi-annually) ● Public hearings/information sessions ● Site/expert visits ● Inbound visits, email, opinion box, service hotline ● Taipower and MOPS ● Media briefings, press releases ● Brochures, educational movies	Nuclear communication	● External communication regarding the "Project for Final Treatment of Spent Nuclear Fuel Rods" included: ▪ Creating one new brochure ▪ Updating the content of the Northern Visitors Center ▪ Holding 40 information sessions at universities and colleges ▪ Holding three study camps at universities and colleges ▪ Holding 51 information sessions in the Shimen, Sanzhi, Wanli, and Jinshan Districts of New Taipei City to clarify and discussing the "Project for Final Treatment of Spent Nuclear Fuel Rods"	Department of Nuclear Back-End Management
		Stakeholder communication and information transparency	● The Xiehe Power Plant communicated with local residents protesting pollution control of fly ash, and clarified that all emissions were within legal tolerance. ● The Dajiaxi Power Plant held one educational event on ecology and power plants. ● The Mingtan Power Plant had three arbitration meetings (26 February 2014, 8 July 2014, and 30 December 2014) with Mr. and Mrs. Xu Guochao regarding the request for compensation for noise pollution from the Jugong Sub Power Plant. The arbitration meetings, facilitated by the Shuil Township Government, were unsuccessful. After installation of additional mufflers, the sound was within legal tolerance. On 25 November 2014, the Nantou County Government authorized night-time operations of the plant. ● People in the Nanbu Power Plant paid two visits to a Kaohsiung resident Huang regarding the safety of the natural gas pipelines. ● The Nanbu Power Plant gave on-site explanation to residents of the Zhuxi Borough, the site of the Kaohsiung gas explosion, regarding the renewal works of the natural gas pipelines. ● The Nanbu Power Plant participated in two "Kaohsiung City Government Information Sessions Regarding the Underground construction of Pipelines" to clarify the safety, necessity, and urgency of the natural gas pipelines. ● The Jianshan Power Plant held a local program on the theme of electricity tariff rationalization and energy saving. ● The Tashan Power Plant communicated three times with local petitioning and protesting pollution from the wastewater outlet in the sea near Xiaxing.	Department of Generation

Stakeholder	Channel of Communication	Issue of Concern and Communication	Key Achievement in 2014	Department in Charge
Media	● Press releases ● Public hearings/information sessions ● Site/expert visits ● Taipower website and MOPS ● Media briefings	Stakeholder communication and information transparency	● The Taichung and Dajiaxi Power Plants held an information session entitled “E love @Taichung” for disadvantaged groups.	Department of Generation
			Updated information and clarification was provided on issues related to Taipower: ● 45 press releases on nuclear power were published, 35 interviews were arranged, and three media conferences were held. ● 7 press releases on electricity tariff rationalization were published, 11 interviews were arranged, and three media conferences were held. In addition Taipower top management visited editors-in-chief of key media to strengthen communication. ● 13 press releases on power supply reliability were published, 40 interviews were arranged, and two media conferences were held.	Department of Public Relations
		Nuclear communication	● Four 30-second commercials were broadcast on nationwide cable networks for the issue of the “Project for Final Treatment of Spent Nuclear Fuel Rods”. ● Participate in four political talk shows. ● Organize in-house visiting programs to NPP4, NPP4 communication events, and an international forum on nuclear energy; detailed statistics are given in Nuclear Communication under Private Organizations in this chart.	Nuclear Communication Task Force
Taipower employees	● Shareholders meeting (annually) ● Labor-Management Meetings (monthly) ● Internal and external conferences ● Interviews ● Education and training ● Internal diary/ engineering schedule ● Conferences/ seminars	Organizational transformation	● The President presented on “The Organizational Transformation of Taipower” at the “Joint Business Conference 2014” on 12 February, 2014. ● Every department provided its progress of “Taipower’s Process of Organizational Transformation and the Reorganization into a Divisional Structure” on 14 April, 2014; ● The President gave a speech entitled “The Liberalization of the Power Industry and Taipower’s Organizational Transformation” at the Taipower Headquarters on 25 April, 2014. ● The finalized common version of the “Introduction of a Divisional Structure in Taipower” was provided to the top management on 3 June, 2014. ● Two “Introduction of a Divisional Structure” sessions were held on 2 and 14 October, 2014. ● From July through October, the top management held more than 80 information sessions to clarify the introduction of a divisional structure to their reports. ● In August and October a total of four two-day training sessions entitled “Organizational transformation” was given to the top management to clarify relevant issues.	Department of Corporate Planning

Stakeholder	Channel of Communication	Issue of Concern and Communication	Key Achievement in 2014	Department in Charge
Taipower employees	● Shareholders meeting (annually) ● Labor-Management Meetings (monthly) ● Internal and external conferences ● Interviews ● Education and training ● Internal diary/ engineering schedule ● Conferences/ seminars	Organizational transformation	To drive the transition to a divisional structure, seven communications were held in 2014: ● The top Management: Cross-Divisional Conference on 12 February, 2014, two training sessions entitled 'Organizational transformation' were held on August 1 and 2, 2014. ● Deputy Directors of units: two training sessions entitled 'Organizational transformation' were held on December 22 and 30, 2014. ● Employees: An information session was held on 10 June, 2014. ● Division Planning Office: two training sessions on 6 October and 1 December. Electricity Act Amendment ● The President gave presentations to the top management and employees four times to clarify the direction of the amendments to the Electricity Act and Taipower's responses to it. ● There was active communication between the union and employees through nine task force meetings entitled "Responses to Taiwan's Power Industry Liberalization and Privatization"	Department of Corporate Planning
		Nuclear communication	● On 5 December, 2014, an employee information session on the NPP1 Decommissioning Plan.	Department of Nuclear Back-End Management
			● Three international forums were held; detailed statistics are given in Nuclear Communication under Private Organizations in this chart.	Nuclear Communication Task Force
		Resource management	● Through unscheduled broadcasts, stickers, and posters, employee awareness of energy saving and CO_2 emission reduction was reinforced. Also, aged equipment was being progressively replaced and renewed in order to achieve the energy saving targets.	Secretariat
		Financial performance	● Five meetings, entitled "Long-Term Financial Planning and Capital Expenditure Control Task Force, were held in 2014."	Department of Accounting
Board of Directors	● Board of Directors meetings (monthly) ● Internal and external meetings	Organizational transformation	● On 2 September 2014, the "Investment and Business Plan Review Task Force" submitted its "Divisional Structure Introduction Plan."	Department of Corporate Planning
		Strategies and policies for sustainable development	● In December, 2014, the "Taipower Future Business Strategy" was presented to the Board of Directors and was approved.	

Note: Frequency of communication through all channels is irregular, unless indicated otherwise.

4.5.2 Responses to Public-Concerned Issues

Tariff Formula

The new tariff formula is not just to benefit Taipower; instead, it is meant to ensure Taiwan's future power supply. The power industry should carry a reasonable profit to continue investing in renewable energy, power grid construction and power development so that we can all enjoy reliable power. In addition, fuel prices surge should also be reflected in the tariff, in the spirit of "the user pays".

Through press releases and interviews, arrange media conferences and meetings between the top management of Taipower and the media, it enabled Taipower to introduce the new tariff formula, Taipower's reform progress, fuel procurement efficiency, and the necessity for reasonable profit to the public.

More information on the process and details of the new tariff schedule, which is expected to be passed on 20 January 2015, is given in "A New Pricing Formula" in Section "2.2.1 Striving for Reasonable Electricity Tariff Schedules to Reflect Costs".

Feedback to Customers

In response to drop of international fuel prices in 2014, and in accordance with the government policy to take care of people's livelihoods and the unanimous decisions approved in the 14th and 15th meetings of the Economic Affairs Committee of the Sixth Period of the Eight Session of the Legislative Yuan, Taipower has used the amount of TWD 9.4 billion from reduced fuel cost to offer reductions of TWD 800 per customer (households and small businesses),which were paid out in January 2015 after approval from MOEA.

4.5.3 Information Transparency

Taipower Website

In 2014, the Taipower website's structure, content, and style were redesigned in a user-friendly manner. The Information Disclosure section offers Taipower's up-to-date operations through six dimensions and 23 topics. The homepage offers a visual presentation of "Today's Power Consumption", which is refreshed every 15 minutes.

In response to customer's demand, outage information has been improved, especially the recovery inquires and communication operations, and thus significantly relieved the workload of the customer service line 1911.

Taipower website：http://www.taipower.com.tw

Taipower Sustainable Development Website

Emphasizing its sustainable performance, Taipower plans to lift the "Sustainability Section" from its website and present this content and on its Sustainable Development website in 2015. The website will offer downloads of "Taiwan Power Company Sustainability Reports" in Chinese and English, and release information on the company's actions and results in response to major sustainability issues.

Taipower Sustainable Development Website URL: http: //csr.taipower.com.tw

Taipower Nuclear Website

Through compelling content, clear infographics, rich data, and a variety of audiovisual media, the website aims to deliver Taipower's efforts in nuclear safety, new and on-going projects, and operations, achievements. The website counts five sections: NPP4 ("Nuke 4"), Nuclear wiki, Advanced information, News, and Media, which offer background information, real-time operating information and radiological monitoring data.

Taipower Nuclear Website: http: //wapp4.taipower.com.tw/nsis/

Taipower TV

Since 1 May 2013, Taipower TV has produced at least one film per day. By the end of 2014, more than 1,000 videos had been released in eight themes/categories: Daily News, Features, Real-life Stories, Nuclear, Tariff, The Beauty of Power, Opinions on Current Events, and Recommended Links. The videos have been viewed 450,000 times, and are widely adopted by the media.

Taipower Video Network Website:
http: //tv.taipower.com.tw/

Youtube search for “TaipowerTV”

Taipower Facebook Page

Social media have become an important channel to communicate with the general public. Therefore, Taipower established its Fan Page in 2010. By the end of 2014, the page had attracted 780,000 followers. The page provides information, real-time responses, direct dialogue, and expectations to earn people’s trust in Taipower.

Facebook page:
Search “Electric Power Fans” on Facebook

Power Information APP

Enable the public to acquire the real-time information on outage and emergency repairs, “Power Information” APP was developed to verify the position of outage and estimated repair time via mobile devices. As of the end of 2014, the app had been downloaded 7,000 times.

Taipower Publications

Publication	Target Reader	Issue for Communication	Publication Time
Taiwan Power Company Sustainability Report	All stakeholders	It introduces important achievements of Taipower in operational management, community involvement, and environmental protection highlights, and the company’s commitment to sustainable development. Since 2007, eight Sustainability Reports have been released.	Annually
Monthly Journal of Taipower’s Engineering	Taipower employees and power industry professionals	It introduces the latest power technology, improves technology level and exchanges research results. As of the end of 2014, 796 issues had been released.	Monthly
Monthly Journal of Taipower	Taipower employees	The magazine focuses on company policies, corporate image, environmental issues, and humanities, in a mix of hard and soft reporting. As of the end of 2014, 624 issues had been released.	Monthly
Monthly Journal of Nuclear	Taipower employees and nuclear power industry professionals	This Journal provides a communication platform for industry, government, and academia. It introduces the latest nuclear technology, promotes application of research findings, and enhances nuclear technology. As of December 2014, 384 issues had been released.	Monthly

Publication	Target Reader	Issue for Communication	Publication Time
Yuan Magazine	General public	Yuan magazine covers local history, allusions, people, culture, and the power industry. It introduces not only to the richness of Taiwan, but Taipower's management principles of "honesty, caring, innovation, service," and realizes efficient energy concept. As of the end of 2014, 108 issues had been released.	Bimonthly
Taipower's Bimonthly Heart-to-Heart	Taipower employees	A soft magazine benefits employees. Its diversification and inspiration supports self-development. It also offers a platform for aspiring writers. As of the end of 2014, 155 issues had been released.	Bimonthly


4.5.4 Complaint Access

Information on corruption, anti-corruption, and cases reported and investigated in 2014 is presented in "Complaint Mechanisms for Unethical or Illegal Conduct" under section "1.2.3 Integrity Management" of this report.

Other complaints included environmental, human rights, and social impact (such as the impact of Taipower's operations on local communities) issues. Besides sending letters, Taipower offers more convenient complaint accesses, as the following:

Service center	Tel. 1911 (toll-free, not from public phones, maximum five minutes)
Customer opinion box	http://goo.gl/wspZZJ (Taipower website > homepage > top menu bar > "Opinion Box")

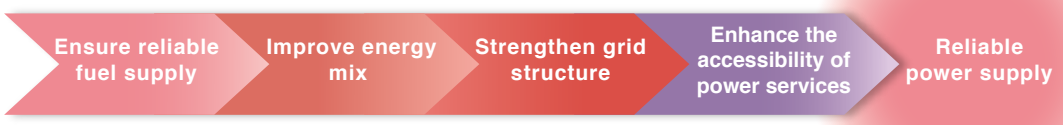
In 2014, Taipower received 123 complaints related to environmental and nuclear issues. In the category of human rights there were four complaints concerning sexual harassment.

Depending on their complaint accesses and their nature, complaints are handled by the relevant units to ensure they are carried out professionally and appropriately. For instance, environmental and nuclear complaints are usually sent to the relevant departments to handle. Human rights complaints are handled with great care. The Department of Human Resources offers counseling to the victims and transfers them to away from their original units. Three sexual harassment complaint cases were closed in 2014, while one case will continue to be handled in 2015. All others have been fully resolved.

As a utility, Taipower strives to satisfy customer demands regarding its products and services. Therefore, the company is committed to supply power with excellent quality, reliability and convenience. Moreover, customers have a variety of accesses to provide their timely demands, to which Taipower swiftly and accurately responds in order to deliver the greatest possible value-added.

5.1 Enhancing Reliability of Power Supply

Taipower is executing a comprehensive review and upgrades its power supply chain, from the fuel supply to its power plants, continuous improvement and diversification of its generation, to enhance its transmission and distribution, to ensure that Taiwan and offshore customers all enjoy excellent and reliable power supply.



5.1.1 Ensure Reliable Fuel Supply

Taipower obeys the following strategies to ensure the fuel supply from various sources to its power plants is stable, sufficient, timely, cost-effective, and of the required quality.

Energy Supply Diversification

Taipower has set caps per country and per supplier for its long-term coal contracts. In addition to these annually reviewed supply quantity limits, the company also invests in coal mining operations overseas as another strategy to safeguard supply. Nuclear fuel procurement from a single uranium region or enterprise group would not exceed 60% of total quantity. For the subsequent processing services of conversion, enrichment, and fabrication, Taipower has two to three suppliers. All natural gas is procured from state-run CPC, which has long-term contracts with Malaysia, Indonesia, Qatar, Australia, Papua New Guinea and the United States, to diversify its sources.

Fixed-Term Fuel Supply Contracts

Coal makes up 70-80% of fixed-term contracts in recent years, and spot contracts account for 20-30%. Uranium procurement is mainly by long-term contracts, which comprises at least 50% of uranium supply, and the rest is by medium-to-short-term and spot contracts. Uranium processing is by long-term contracts. Fuel oil is procured from local suppliers through fixed-term contracts to guarantee supply safety. Natural gas supply is procured from CPC through fixed-term contracts. CPC in turn has long-term procurement contracts with foreign suppliers for a total annual volume of 9-12 million tons.

Safety Inventories

By law, coal inventory must suffice for 30 days. Under this requirement and other factors, Taipower adopted 36 days of inventory for its target over 2014. In the meantime, fuel oil inventory was 10-15 days.

Based on the supply and transportation circumstances for all power plants, an appropriate inventory level of diesel was kept.

The safe inventory level for uranium is set at three years' usage volume. In addition, for each unit at nuclear power plants one batch of nuclear fuel is kept at all times.

In accordance with the stipulations of the "Taipower and CPC Contact and Early-Warning Mechanism for Natural Gas Supply and Demand", inventories of natural gas are kept at the Yong'an and Taichung Plants, at 80,000 and 50,000 tons respectively. Taipower and CPC cooperate closely to resolve possible issues.

Stable Coal Transportation

Taipower currently owns six coal carriers, which transported 8 million tons of coal, or 25% of shipping ratio in 2014. Also, the relaxation of procurement restrictions and broadening coal procurement sources aim to reduce the cost for coal and secure the reliability of the power supply.

5.1.2 Improving the Energy Mix

Assessment of Future Electricity Supply and Demand

To ensure the future reliability of power supply, Taipower evaluated the nation's future electricity supply and demand first to learn the trends and issues, and is able to plan improvements of its energy mix.

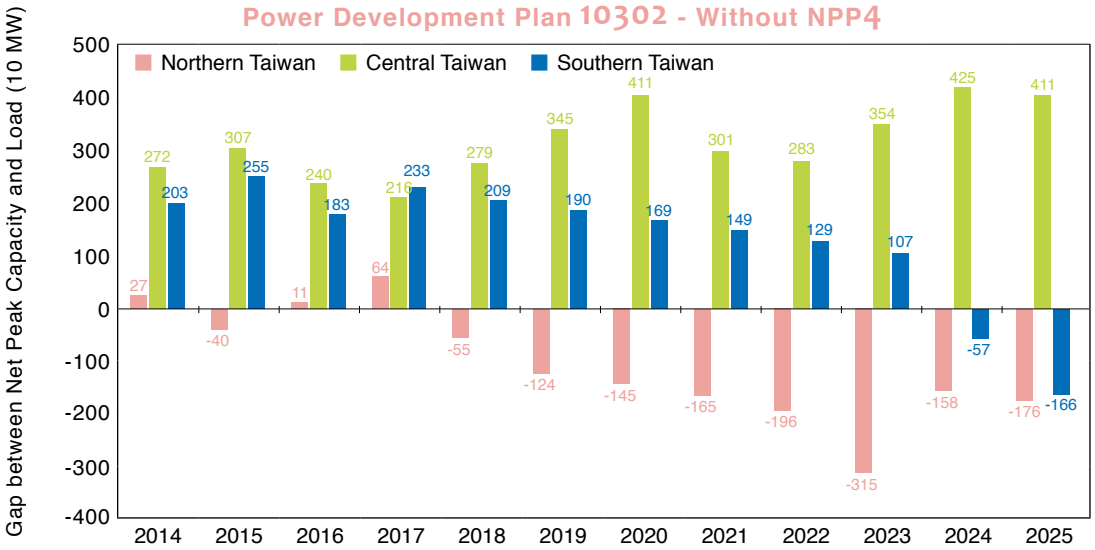
Power shortage worsens, risk of outages grows

According to Taipower's "Long-Term Power Development Plan", as Nuclear Power Plant No. 4 was mothballed, the reserve margin will be less than 10% since 2018, or even less than 5%, which will cause severe shortage of power and hurt industry development and living standard.

Imbalance of regional supply and demand

According to Taipower's "Long-Term Power Development Plan 2014", when Nuclear Power Plant No. 4 is mothballed and taken out of operation, northern Taiwan will face a shortage of 400 MW since 2015. As of 2018, Taipower's reserve capacity rate will shrink to single digits, and the shortage in northern Taiwan will continue to expand to an estimated 3.15 GW by 2023, exceeding the system's capacity for safe transmission. From 2024 onward, when Nuclear Power Plant No. 3 is decommissioned, southern Taiwan will also begin to face power shortages.

In these circumstances of an overall power shortage and scheduled downtime of generation units for regular maintenance, the shortages of northern and southern Taiwan cannot be compensated from surplus power from central Taiwan, and the risk of outages increases significantly. The future power supply and demand in northern, central, and southern Taiwan is demonstrated in the figure below.



Insufficient base load increases cost of electricity

The Fukushima nuclear disaster changed people's mind to be against nuclear power plant operation, and hampered the dialogue on Nuclear Power Plant No. 4. Meanwhile, the development of coal-fired power plants is also met with opposition, which will push up the proportion of power generated from liquefied natural gas (LNG). However, natural gas power plants in Taiwan only use LNG as fuel, which is more expensive than pipeline natural gas used in Europe and North America.

Taipower's cost of coal-fired power generation in 2014 was TWD 1.05/kWh. The cost of power generation at Tongxiao, the newest and LNG power plant, which is still partly under construction, was TWD 3.1/kWh in 2014, roughly triple the cost of coal-powered generation. Thus, boosting the base load through LNG will drive up the cost and the price of electricity.

Rising liquefied natural gas (LNG) power and insufficient storage capacity will reduce power supply reliability

CPC's storage capacity for LNG is limited to a turn-over of 6-12 days. In the event that gas delivery is hampered, such as a typhoon preventing vessels from berthing and discharging, or if the gas-fired power plant cannot generate power for some reason, power supplies may quickly become tight. An insufficient base load, increased future reliance on LNG, and therefore shorter-lasting LNG inventories give cause for concern regarding normal power supply in the future.

In view of the future issues in power demand and supply described above, Taipower is planning and taking countermeasures, including improving base load and reserve capacity management and developing long-term power development strategies and plans.

Base Load and Reserve Capacity Management

Current base load and reserve capacity

Base load power delivers sufficient power for a long period at low cost. Currently, the base load of Taiwan's power system comes from coal, nuclear, and hydro (river) generated power. As of the end of 2014, coal-fired installed capacity accounted for 26.2% of system capacity, nuclear for 12.6%, while hydro accounted for 0.4%. Installed base load capacity was less than ideal proportion of 55-65%.

Because Taiwan is a small and densely populated country, and because of the NIMBY phenomenon, it is difficult to find locations for new power plants, and construction typically lasts 12 years or longer. It is therefore impossible to improve Taiwan's base load issue in the short term. Medium-to-large hydroelectric plants seem an attractive solution: they can start up fast, respond swiftly and flexibly to changes in demand, and reduce dependence on imported and fossil energy. However, most hydro plants (and potential future hydro plant locations) are located in national parks, which make it difficult to increase power supply from hydro-powered generation.

Measures to improve base load and reserve capacity

According to Taipower's "Long-Term Power Development Plan 2014", when Nuclear Power Plant No. 4 is mothballed and taken out of operation, and Nuclear Power Plants No. 1, No. 2, and No. 3 are decommissioned, the power system's reserve capacity rate will shrink to single digits by 2018, and reach -0.3% by 2025, a severe shortage of power. Short-term response measures are limited to improve maintenance to keep current power generation units in the best possible condition for as long as possible, and slow down the impact of power shortages. These measures include:

- Strengthen load management measures to enhance energy efficiency to slow the growth of electricity (see Section "3.3 Demand Management" of this report).
- Strengthen maintenance and repair of power generation units and optimize unit overhaul schedules to improve unit availability.

Long-term response countermeasures include renewal and expansion of thermal-powered plants, building additional thermal-powered plants, and delayed decommissioning of nuclear power plants. For instance, units may be added to the Datan, Tongxiao, Linkou, Dalin, and Xingda power plants, the approval process for the construction of the Shen'ao Power Plant and the review process for the Zhanggong Power Plant may be sped up, and the operating periods of the three nuclear power plants may be extended. All these measures combined may solve the imbalance in regional supply and demand and an overall power shortage.

Rolling review of reserve capacity rate

Taipower's long-term power sources are planned and fine-tuned annually based on government forecasts of economic trends, the development of industrial structure, demand-side management measures and population growth, and electricity pricing and climate and temperature conditions. The company also relies on the opinions and forecasts of scholars and experts in developing its plans. If great events or economic changes cause economic growth to differ significantly from forecasts, Taipower will adjust its long-term load forecasts and plans for power supply through its rolling review.

Long-Term Power Development

Renewable energy development

In line with government policies to develop renewable energy resources, Taipower has been vigorously developing wind power since 2002, and has been implementing Phase I of a solar photovoltaic program since 2008. To drive the development and utilization of renewable energy, the government promulgated the “Renewable Energy Development Act” on 8 July 2009, which stipulates that Taiwan must achieve a total installed capacity of renewable energy power generation of 6.5 GW to 10 GW. In response, Taipower established a Department of Renewable Energy in 2011, responsible for the entire process from planning, tendering, and construction supervision to operation and maintenance of renewable-powered power generation facilities. By the end of 2014, 169 wind turbines had been installed with a total installed capacity of about 294 MW. Twenty-one solar farms now have a total installed capacity of about 18 MW.

At present the total installed capacity of renewable energy power generation accounts for about 7 percent, and is expected to achieve its objectives by 2030, when renewable energy power generation should account for 12-15% of total installed capacity and 8-10% of total electricity generation.

In addition, in the wake of the Fukushima nuclear disaster, the government announced a policy of “steady reduction of nuclear energy” in November 2011 in order to reduce CO_2 emissions. The government will further expand the development and utilization of renewable energy sources, and estimates that by 2025 the proportion of renewable energy capacity can be 20.8%.

Generation projects

In addition to active development of renewable energy sources, Taipower continues its renewal and expansion of its existing thermal power plants to develop a balanced power structure. Regarding coal-fired power plants, the Linkou and Dalin plants are currently under being renewed and expanded, while approval is sought for the construction and expansion plans for the Shen’ao plant, and expansions of the Linkou and Xingda plants have progressed to their planning stages. Regarding gas-fired power plants, power generation units no. 1-3 of the Tongxiao Power Plant are being renewed and expanded, while units no. 7-9 of the Datan Power Plant and units no. 4 and 5 of the Tongxiao Power Plant are being planned now.

Type of Power Generation		Name of Project	Description
Nuclear & Thermal Plant Projects	Nuclear	Nuclear #4 No.1 & 2 Project	● Constructing two single advanced Boiling Water Reactor Units of 1,350 MW each, with a combined annual power generation capacity of 19.3 TWh. An alternative to coal-fired power generation, these units will prevent estimated CO_2 emissions of 16.2 million metric tons per year. ● The plan that implements the government policy of "Work on Unit 1 of NPP4 will be halted and safety inspections will be conducted; after that, the unit will be sealed. All work on Unit 2 of NPP4 will be halted," announced on 28 April 2014. The shutdown and sealing activities are currently being prepared. On 29 August 2014, the Executive Yuan approved the shutdown and sealing implementation plans.
	Thermal	Dalin Renewal & Reconstruction Project	● Two single ultra-supercritical pressure coal-fired units of 800 MW capacities are being installed, for a total investment value of about TWD 104 billion. ● Unit 1 and Unit 2 are scheduled to be operational by July 2016 and 1 July 2017, respectively. ● By the end of 2014, construction progress was 55.43%.
		Linkou Renewal & Expansion Project	● Three single ultra-supercritical pressure coal-fired units of 800 MW capacities are being installed, for a total investment value of about TWD 152.5 billion. ● Units 1, 2 and 3 are scheduled to be operational by July 2016, January 2017, and 1 July 2019, respectively. ● By the end of 2014, construction progress was 53.98%.
		Tongxiao Renewal & Expansion Project	● Three single ultra-supercritical pressure LNG-fired units of 892.6 MW capacities are being installed, for a total investment value of about TWD 91.6 billion. ● Units 1, 2 and 3 are scheduled to be operational by July 2017, January 2018, and July 2018, respectively. ● By the end of 2014, construction progress was 26.89%.
Hydro Plant Project	Hydro	Dajia River Hydro Power Plant Chingshan Branch Retrofit Project	● Mounted vertical axis Francis type turbine generator set of four, after the plan to complete the system a net capacity of 368 MW peak. ● 2014 actual completion progress 85.66%, compared with projected progress (82.67%) 2.99%.
Renewable Power Project	Wind	Wind Project Phase 4 (2012~2015)	● On the Luzhu Wind Farm, eight additional wind turbines with a total installed capacity of 7.2 MW were completed and in trial operation by the end of 2014.
		Penghu Low-Carbon Project (2013~2016)	● Eleven 3000 kW wind turbines with a total installed capacity of 33 MW are expected to become operational by the end of 2015. ● In 2014, MOEA granted a permit for preparatory construction works.
	Photovoltaic	Photovoltaic Project Phase 1	● From 2008-2011 Taipower installed solar photovoltaic (PV) systems with a total installed capacity of 10.4 MW, as per the end of 2011 on its own buildings and land, and on suitable locations made available by external parties. To reach the government's goal of raising the share of renewable energy in the nation's power structure, Taipower pulled forward its targets for PV systems installation. The company requested and received permission to add 7.6 MW to its current PV plan, which was extended until 2014. By the end of that year, total installed PV power generation capacity was expected to reach 18MW. ● In 2014 rooftop arrays of PV panels were added to units no. 1 and 2 of the Xingda Power Plant with a capacity of about 0.6 MW. Similar rooftop arrays of PV panels were added to Plants B and C of the Taichung Power Plant, and to Longjing I and II of the Taichung Power Plant, which are in trial operation now, and awaiting power generation licenses. Their installed capacity totals 7.1 MW.

Long-term power development plan

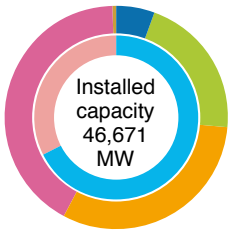
It is unclear whether and when NPP4 will be unsealed and taken back into operation again. Therefore, for planning purposes, this power plant remains disregarded. In the "Taipower Long-Term Power Development Plan 10302 — Without NPP4", planned new capacity, power long-term load development, and reserve capacity rates until 2025 are shown in the table below.

New Capacity to Be Installed from 2015-2025

Unit: MW

Unit Type	Under Construction by Taipower	Under Planning by Taipower	IPP	Total
Renewables	50.9	150.0	5,727.5	5,928.4
(1) Hydro	8.0	0.0	11.7	19.7
(2) Other	42.9	150.0	5,715.8	5,908.7
Thermal	6,677.8	4,557.2	0.0	11,235.0
(1) Coal	4,000.0	0.0	0.0	4,000.0
(2) Oil	0.0	57.2	0.0	57.2
(3) LNG	2,677.8	4,500.0	0.0	7,177.8
Total	6,728.7	4,707.2	5,727.5	17,163.4

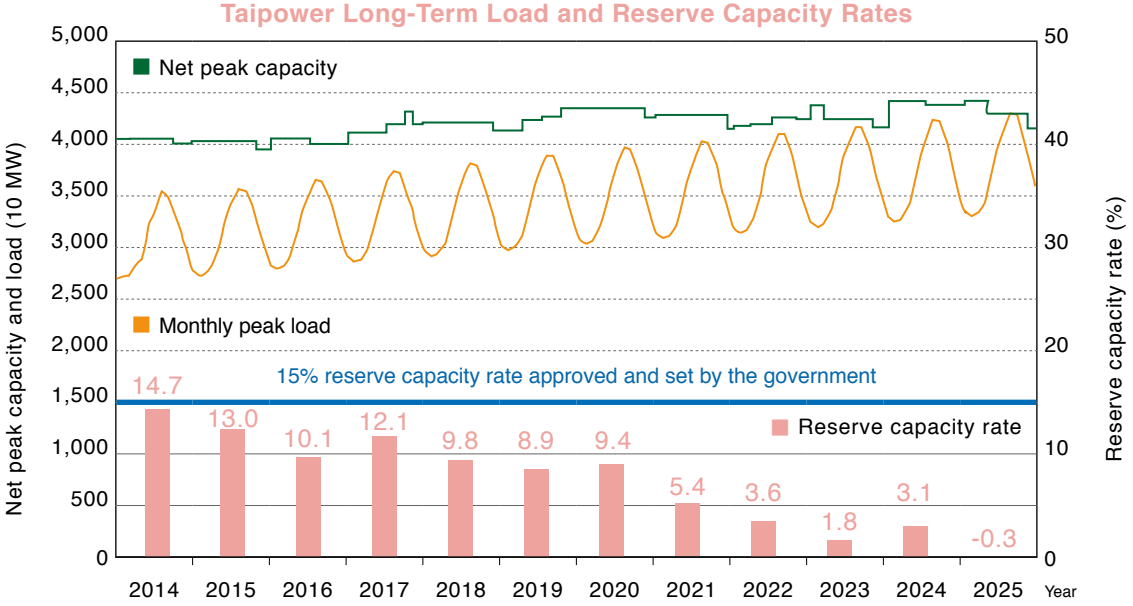
Taipower's Installed Capacity Planning until 2025



Pumped-storage hydro power	5.6%		
Renewable resources	20.8%		
Coal	31.5%	Taipower	67.6%
LNG	41.8%	Procured	32.4%
Fuel oil	0.3%		

Note: Data taken from "Taipower Long-Term Power Development Plan 10302 - Without NPP4"

Taipower Long-Term Load and Reserve Capacity Rates



Note: Based on "Taipower Long-Term Power Development Plan 10302" and "Taipower Long-Term Power Development Plan 10302 — Without NPP4".

Procurement Measures

Since Taiwan's population density is very high, it is not easy for Taipower to build new power plants. This is why power is also procured from independent power producer (IPP) operators and qualified Co-generation system operators. This enhances power supply, while saving human and material resources associated with power development. In 2014 Taipower procured 50.2 TWh, or 22.9% of its total power supply of 219 TWh. This procurement has become an indispensable source of power, which can replace more costly oil-fired and gas-fired power generation, saving overall power generation cost and making operations more robust.

- IPP (Independent Power Producer): By the end of 2014, Taipower had signed an effective

procurement contracts with nine IPPs representing a total capacity of 7,652.1 MW.

- Co-generation: By the end of 2014, Taipower had procurement contracts with 54 providers for a total installed capacity volume of 5,871.2 MW, and guaranteed peak capacity of 2,065.3 MW.

5.1.3 Strengthening Grid Structure

◆ The 7th Transmission and Substation Project (Amended)

To meet the needs of the added power sources and increased load and to solve the issues of the current high utilization of power transmission equipment and impossibility of supplying power from nuclear sources to UHV users, Taipower continued the implementation of its 7th Transmission and Substation Project to improve both the supply capacity of the transmission system and the excellent quality of power supplied.

As the international economy remains slow, growth of domestic power demand also has softened as a result. Also, such internal and external factors as postponement of some of Taipower's power development and transmission plans, amendments to norms for system planning, and the application of new technologies changed the planning environment. Taipower proposed the "7th Transmission and Substation Project (Amended)" in accordance with the provisions of the 'Regulations Governing the Budgeting Processes of Bodies under the Central Government'[3].

The total sum of investment in the "7th Transmission and Substation Project (Amended)" is TWD 236.9 billion, covering a 12-year period from January 2010 through December 2021. The investment will create 103 new substations, with a total capacity of 18,554 MVA, and 1,966 km of circuit kilometers (CKM).

Completion Rates of the 7th Transmission and Substation Project (Amended) by 2014

Item	2014 Target	2014 Actual	Completion Rate
Progress of projects			84.66%
Circuit construction (CKM)	224.33	184.63	82.30%
Substation construction (MVA)	1,083.01	942.35	87.01%
Budget depletion (TWD 100 million)	170.97	163.05	95.37%

Note: Statistical data covers January through December 2014

Accumulative Completion Rates of the 7th Transmission and Substation Project (Amended)

Item	2021 Target	2014 Target	2014 Actual	2014 Completion Rate	Overall Completion Rate
Progress of projects				97.97%	66.20%*3
Circuit construction (CKM)	1,966.19	1,325.96	1,286.26	97.01%	63.73%*4
Substation construction (MVA)	18,554.15	13,214.48	13,073.81	98.94%	68.66%*5
Budget depletion (TWD 100 million)	2,368.71	1,364.04	1,356.12	99.42%	57.25%

Notes: 1. Statistical data cover January 2010 through December 2014

2. Construction scale: 2010-2013 circuit construction = 2370.2 CKM, substation construction = 23559.69 MVA. After 2014, under the 7th Transmission and Substation Project (Amended): circuit construction = 1966 CKM, substation construction = 18554 MVA.
3. Overall completion rate of circuit construction = completion rate of circuit construction by 2013 of 46.478% + [(completion rate of circuit construction by 2014 of 67.438% - completion rate of circuit construction by 2013 of 46.478%) * completion rate of circuit construction in 2014 was 82.30%] = real progress rate of overall circuit construction project by 2014 of 63.73%
4. Overall completion rate of substation construction = completion rate of substation construction by 2013 of 51.492%+ [(completion rate of substation construction by 2014 of 71.221% - real progress rate of substation construction by 2013 of 51.49%) * completion rate of substation construction by 2014 of 87.01%] = real progress rate of overall circuit construction project by 2014 of 68.66%.
5. Overall completion rate in 2014 = completion rate of circuit construction *50% + completion rate of substation construction * 50% = 66.20%

[3] The "7th Transmission and Substation Project (Amended)" was submitted to MOEA on 17 June 2014 by way of communication No. 10300597900. The Executive Yuan approved the plan by way of its communication No. 1030030140.

5.1.4 Enhancing the Accessibility of Electricity Services

Subsides to Offshores

To enable users on the offshore to obtain power services that are equivalent to those on the main island of Taiwan, Taipower complies with the government mandate to provide power to the offshore. And their tariff rates base on the regulations stipulated in the Offshore Development Act and the Subsidy Regulations on Losses of Electric Utility Operator for Offshore. In 2014, Taipower offered electricity bills subsidies to the offshore, amounting to NT$5.854 billion.

Urgent Repair after Disasters

On the morning of 1 August 2014, the Kaohsiung districts of Qianzhen and Lingya were woken up by a gas explosion, which caused serious damage to Taipower's underground power lines and cables, transformers and switches, affecting power supply to 30,000 households.

To restore power supply to the affected households as soon as possible, Taipower established a "Major Disaster Forward Command Post" in accordance with the "Disaster prevention and Emergency Response Standard Operating Procedures" to oversee operations in Kaohsiung and Fengshan District. The company dispatched personnel to staff the Major Disaster Forward Command Post under the Central Disaster Emergency Operation Center to assist the Kaohsiung City Government to actively handle the disaster emergency repair work. 1,024 employees and 389 vehicles were mobilized for the repair work, and by nightfall regular power supply to more than 70% of affected households had been restored. Amidst the terrible scene of the disaster, the company's staff worked vigorously around the clock, and by the morning of 7 August power supply had been completely recovered.

To accelerate the post-disaster recovery work, Taipower established a service team which set up communication channels with the municipal government. The company reconstructed its power facilities after the disaster, and communicated to the media through the city government. Simultaneously, it also implemented seven power-saving measures, and assisted the Social Affairs Bureau of Kaohsiung City Government with providing power rate reductions and in-house wiring safety inspections in the disaster perimeter to help affected people rebuild their homes.

Scene of the gas explosion disaster

Seriously damaged underground cables and wires

Disaster-commander directing relief work on site

Challenging relief and recovery work

5.1.5 Maintaining Reliability of Power Supply

To monitor the operational status of power supply equipment, Taipower has established specific targets for relevant power supply reliability index (SAIDI and SAIFI) to assess operating performance. The mechanisms to manage the reliability of power supplies are as follows:

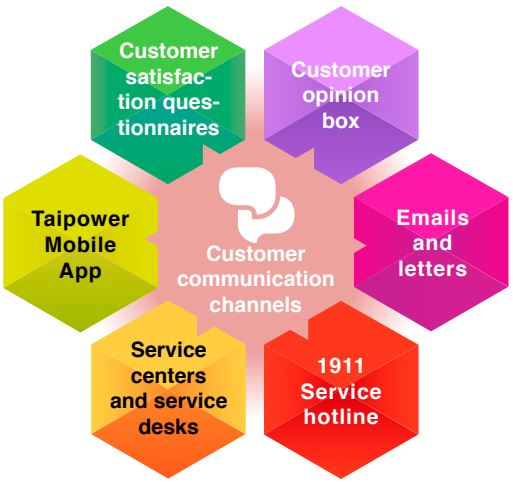
Management Mechanism	Action under the Mechanism	Action Takenin 2014
Periodic review and analysis	● Facilities System Incident Review Meetings and outage coordination meetings ● Regular reviews of the average interruption performance of the distribution system	● Regular monthly meetings were held to review the causes of electromechanical incidents during the previous month, and devise improvement strategies. ● Carry out in-depth investigations of major incidents and formulate improvement measures.
Distribution feeder automation	● Distribution feeder automation to assist dispatched personnel to quickly isolate the incident spot, reducing feeder outage time from an average of 60 minutes to less than five minutes. ● Accelerated feeder automation engineering, feeder map updating, comprehensive management and control process for outages, repairs without planned power interruptions, to reduce the scope, duration, and frequency of repair-related power interruptions	● By the end of 2014, feeder automation work on 356,428 circuit kilometers were completed. ● In 2014, 533 automated switches were added, taking the total to 21,451 such switches, covering 44.1% of feeder lines.
Risk management	Screening of important risk factors to power supply, risk management, strengthening inspection and maintenance of critical equipment to ensure the stability and reliability of power supply.	In 2014, risk management improvement focused on two objects of management and control through monthly performance tracking: the stability and security of the system affected by shortages (such as power outages and voltage dips in science parks), and damage to power equipment caused by natural disasters (such as typhoons, lightning, salt corrosion).
Training of personnel	● Regular education and training of distribution line maintenance staff to enhance their technical skills and maintenance capabilities ● Monthly incident reporting drills to strengthen the response capability of on-duty staff	● Fourteen education and training sessions were held. ● Besides the routine drills, the Area Dispatch and Control Centers (ADCC) and Extra High Voltage Earthing Switches (ES) underwent telephone tests for emergency dispatch in May and December respectively.

Targets and Performance for Power Supply Reliability

Performance	Year	2012		2013		2014	
		Target	Actual	Target	Actual	Target	Actual
System average interruption duration index (min/customer, year)	Performance of forced outage	13.894	13.331	13.469	13.141	13.290	12.713
	Unexpected outage	6.106	5.719	5.531	4.945	4.960	4.783
	Total	20	19.050	19	18.086	18.250	17.496
System average interruption incident index (freq./customer, year)	Performance of forced outage	0.069	0.067	0.068	0.064	0.068	0.064
	Unexpected outage	0.221	0.23	0.212	0.200	0.222	0.200
	Total	0.29	0.298	0.28	0.264	0.29	0.264

Notes: Average duration of power interruptions (min/customer · year) = system-wide duration of power interruptions ÷ total number of customers
Average frequency of power interruptions (min/customer · year) = system-wide number of power interruptions ÷ total number of customers

In 2014 the average power interruption duration per customer was 17.496 minutes per year (down from 18.25 minutes per year), a good performance and a record for Taipower. The average power interruption frequency was 0.264 times per customer per year (better than the target of 0.29 times per year), which was the same as 2013 and better than 2012. On both parameters, performance exceeded the set targets, which was highly beneficial to the quality of power supply service.



5.2 Strengthening Customer Communication

5.2.1 Multiple Communication Channels

Taipower offers a variety of communication channels to its customers to express their needs and opinions regarding the company's power supply services.

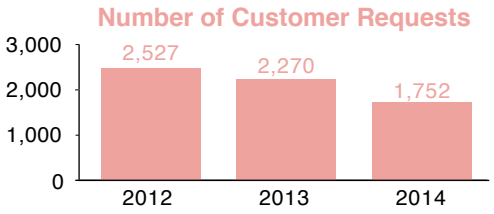
In addition, to lower service barriers resulting from language, culture, or literacy, the Taipower service call center offers service in Mandarin, Taiwanese, and English to facilitate communication with different customer groups.

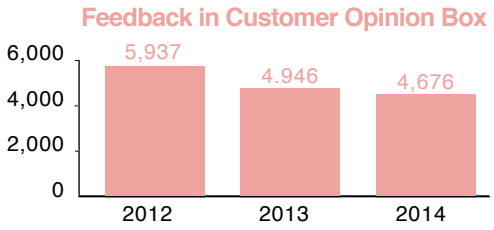
5.2.2 Handling Process of Customer Requests

Taipower is aware of changes in society and growing assertiveness of the general public. To safeguard the rights and interests of its customers, the company has established "Regulations Governing the Handling of Customer Requests" to ensure that customer suggestions and complaints are solved and settled in a reasonable and timely manner. To stay in step with the needs of society, the company reviews these regulations as needed, as part of its corporate social responsibilities.

After requests have been received through various channels (email, letters, phone calls, etc.), they are handled by the unit associated with the content of the request. This unit sets up a file, and tracks the progress and outcome of the handling process of the case.

At specific times, all units compile and analyze statistics of their cases, and propose measures for improvement to serve as input for improvements in operations and policies. In 2014, the company received 1,752 customer requests. Customer requests are shifting to online channels (540 cases came through online channels, representing 30.82% of cases). Over the period from 2012-2014 the numbers of customer requests were as follows:





5.2.3 Customer Opinion Box

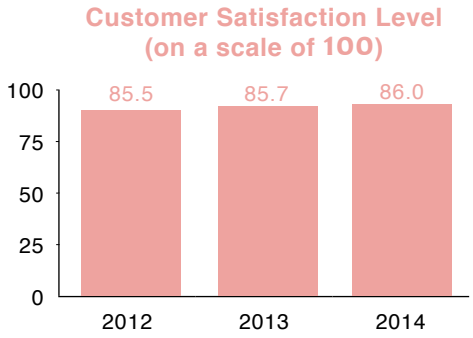
The Taipower website has a Customer Opinion Box to offer customers a smooth and efficient channel for opinions and feedback and for the company to swiftly handle these. Each month the processing performance and customer satisfaction is measured and used to improve service quality. Over the period from 2012-2014 the customer feedback emails were as follows:

5.2.4 Customer Satisfaction Survey

To understand the level of satisfaction of the general public with the services provided by Taipower, as required by the State-Owned Enterprise Commission of the Ministry of Economic Affairs (MOEA), Taipower annually commissions an external agency to conduct "Customer Satisfaction Surveys for Entities under MOEA". The target groups, execution period, and dimensions covered in the 2014 survey were as follows:

Target Group	Execution Period	Dimension Surveyed
● General customers: low-voltage users who had business contact with Taipower over the past year ● Medium-to-large customers: users with contracts of 100 KW or more	20 November through 20 December 2014	● Company image and social perception ● Service quality ● Overall customer satisfaction ● Customer complaint handling

According to a comprehensive analysis of the survey items: "overall service satisfaction", "image with the general public", and "perception by society" by the MOEA, Taipower received a customer satisfaction score of 86 points in 2014, reaching the target set for the year. Each year, Taipower sets target values for the customer satisfaction scores to manage and control service quality. Further details about the targets for 2014 and 2015 are given in Section "1.4.1. Key Performance" of this report. The customer satisfaction scores for the period 2012-2014 are as follows:



In response to possible future challenges and social expectations, Taipower reevaluates its position and operation in order to improve its performance and finance. With the necessity to improve its financial performance and the upcoming liberalization of the industry, Taipower will transform itself into a divisional structure in 2016. To this end, Taipower conducts the preparation since 2014 with the projects “Separation of Generation and Grid Functions” and “Separation of Revenues and Payments” to reform the operation and management model.

6.1 Improving the Operation

Changes and challenges provide Taipower opportunities to improve the operation. On one hand, due to financial losses accumulated, Taipower has been improving its operations since 2012 to enhance its financial performance. On the other hand, our government has been promoting the liberalization of the power industry since 2012, forcing Taipower to respond to the external operation environment changes.

Actions and results of optimization of internal operational performance are described in Section “2.1.1 Driving Operational Improvement”. The current chapter will describe the current status on liberalization of the power industry in Taiwan and Taipower’s strategy in response to the privatization, measures and performance.

◆ Amendment History of the Electricity Act

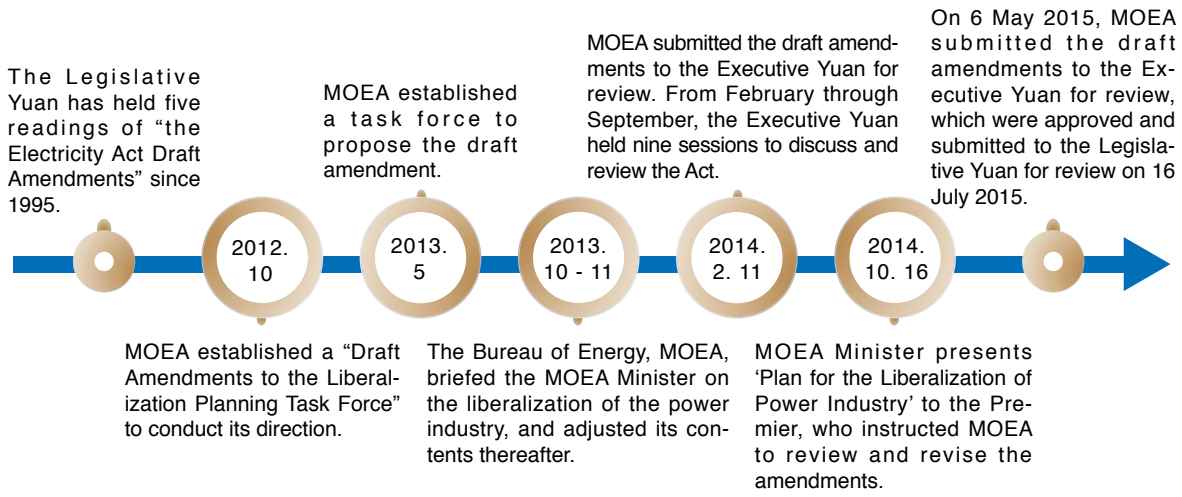
To promote the liberalization, the Ministry of Economic Affairs (MOEA) established a “Liberalization Planning Task Force” in October 2012. After six meetings the group proposed four recommendations on the direction of the liberalization. The Bureau of Energy, MOEA, thus established an “Electricity Act Amendment Task Force”, which proposed the “Draft Amendments to the Electricity Act” in 2013. And then, the task force presented a liberalization plan to MOEA

on 11 October and 25 December 2013, and adjusted the plan following the minister's instructions thereafter.

On 11 February 2014, the MOEA submitted the "Draft Amendments to the Electricity Act" to the Executive Yuan for review, holding 9 meetings. On 16 October MOEA presented its "Power Industry Liberalization Plan" to the Executive Yuan. In that session, the Premier instructed proceed power industry liberalization gradually, setting the priority of Taipower efficiency improvement, and requested the MOEA to review the draft before resubmitting it to the minister without portfolio for review.

Following the Premier's instruction, MOEA revised the amendment and presented it on 6 May 2014 to the Executive Yuan for review, which is expected to present it to the Legislative Yuan in July 2015.

Milestone of the Electricity Act



Highlights from Amendment of the Electricity Act

1. Two-phase liberalization of the power industry
   (1) Phase 1 (accounting independence): After approval of the amendment, all sectors in the power industry should be accounted independently in order to clarify the costs of the power transmission grid.
   (2) Phase 2 (plants and grids unbundle): Within nine years from the approval of the amendment, the power grid and the power plants must be unbundled into two legal entities that are barred from holding cross-shareholdings.
2. The power industry would be divided into a power grid company, generation companies, and power trading companies.
   (1) Power grid company: A state-owned power grid for transmission, distribution, and sales
   (2) Generation company: Non-public entities operate generation facilities and sales of electricity at unregulated prices. Power trading can be done through wholesale, common carrier, and direct access.
   (3) Power trading company: a middleman between the generators and customers, purchasing power from generators and selling it to customers with supplier option.
3. Establish a state-owned authority, performing impartially, for the power industry to supervise the industry, safeguard the rights and interests of customers and review and regulate electricity prices and tariffs.
4. Establish a foundation for power operation and follow the regulations laid down by the power industry authority.
5. Provide customers, from large customers to residential/commercial ones, with power supplier option gradually.

6.2 Organizational Transformation Plan

MOEA instructed Taipower transforming to divisional structure as of 2016. Determined to pursue novelty and change, and to improve its overall business performance, Taipower has embarked on the process of establishing a divisional structure in line with the government's policies to liberalize power industry. This involves reorganizing Taipower's generation, transmission, sales, and nuclear units into hydro and thermal generation, nuclear generation, transmission and supply, and distribution and trading divisions in hopes that this will raise the overall efficiency of the company's operations through strengthening cost-awareness and efficacy within the organization, and developing greater responsiveness to society's expectations of the company's reforms and future challenges outside the company.

Schedule of Introduction of Divisional Structure in Taipower

Schedule	Implementation
March 2015	Propose Interim Report on Responsibility Centers (by Taiwan Institute for Economic Research).
April 2015	Complete Regulations Governing Management of Three Operating Principles for Ancillary Services.
May 2015	Complete Ancillary Services Fees Payment and Revenue Collection Procedures.
June 2015	1. Submit amendments to company regulations to shareholders' meeting after MOEA's approval.
	2. Complete separation of revenue streams to the various divisions.
	3. Complete the draft of the Implementation Rules for the Internal Separation of Plants and the Grid.
July 2015	Complete drafting of performance indicators for each division.
September 2015	1. Submit the Amended Company Regulations and Divisions Regulations to the Board of Directors for review and approval.
	2. Set performance indicators for plants and departments
October 2015	Release Company Statutes, Organization Regulations, and Division Regulations
November 2015	Complete income statements of headquarters and divisions
December 2015	Complete the 2016 targets for the company and its divisions

To accommodate the divisional structure, the company regulations are to be revised accordingly.

Schedule for Amending the Organization Regulations

Schedule	Implementation
June 2015	Submit amendments to company regulations to shareholders' meeting after MOEA's approval.
September 2015	Submit the Company Organization regulations and Divisions Organization Regulations to MOEA for review after BOD's approval.
October 2015	Release the revised Company Statutes, Organization Regulations, and Divisions Regulations.

To transform the organization to a divisional structure requires not only changing the organization's operations, but also changing employees' thinking logic. It is a big and necessary step from state-owned utility to focus on cost/profit. Both clarification of divisions' interfaces, rights and responsibilities through the "Separation of Generation and Grid Functions" project, and through the "Management Regulations for Trial Operation of the Responsibility Centers for the Purpose of Separation of Plants and the Grid" are crucial for the success of this transformation.

Parallel to this, Taipower will introduce the "Accounting Separation" system, which will enable calculations of cost and revenue from generation, transmission, distribution, and trading to be made, and which would reflect the actual operating results of divisions and plants. Transforming to a divisional structure will foster cost awareness throughout the organization, and thus develop its competitiveness. Therefore, even without liberalization, Taipower would be able to strengthen its operating performance by realizing divisional structure.

6.3 Driving Organizational Transformation

Taipower is responding to creating a divisional structure through its own measures of "Accounting Separation" and "Separation of Generation and Grid Functions."

Accounting Separation

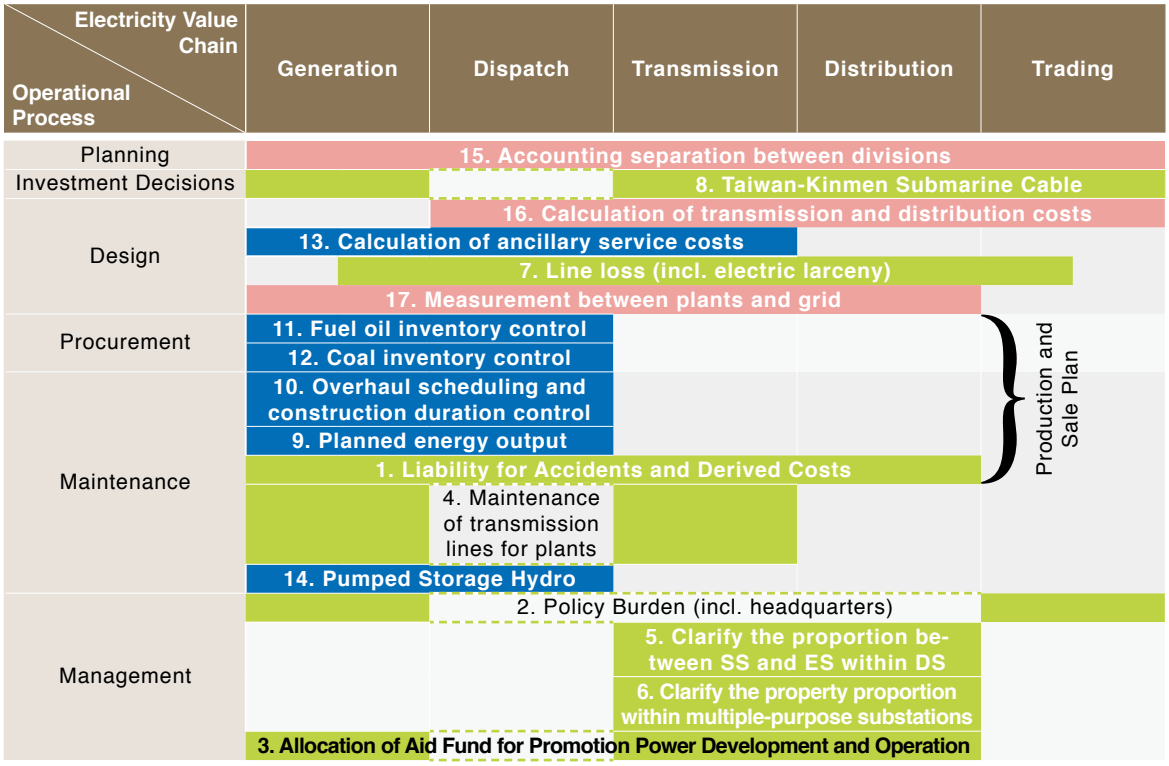
On 30 June 2014, Taipower completed the rules for the four divisions cost separation, and established accounting separation management reports, which started implementing since October 2014.

Separation of Generation and Grid Functions

"Separation of Generation and Grid Functions" is an important policy of Taipower to enhance its efficiency and competitiveness and up to the ultimate goal of 'create value and reduce cost'.

Since September 2013 Taipower has a "Power Utility Industry Liberalization Response Task Force" built a framework consisting of the "Value Chain of Electric Industry" (i.e., generation, dispatch, transmission, distribution and sales) and the "Business Operational Procedures" (i.e., planning, investment decision, design, construction, procurement, operational maintenance and management) to clarify the responsibilities of each unit/division.

Initially 18 such issues were identified, and the planning for these was completed on schedule by the end of June 2014. From early July, it moved to the "Preparation and Review Phase". In this stage the issues were reduced to 17 issues in three clusters. For each issue a driving mechanism and management and control rules were defined, and each issue was tied to a responsibility center.



Note: cost clarification responsibilities clarification between scheduling and plants payment and revenue clarification

Regarding the 17 issues of the "Separation of Generation and Grid Functions" mentioned above, Taipower conducted a trial operations of responsibility centers for the issues "Overhaul scheduling and construction duration control", "Fuel oil inventory control", and "Liability for Accidents and Derived Costs." These issues would be tied to the performance bonus. Under the "Overhaul scheduling and construction duration control", there were 27.88 days ahead of schedule, saving TWD 1.25 billion in substitute cost of fuel in 2014.

In 2015, Taipower plans to expand the scope of these issues to include medium-load units, and further to the issues: "Planned energy output" and "Coal inventory control." By December 2014, the "Trial Operation of the Responsibility Centers for the Purpose of Separation of Plants and the Grid" that related to these five issues were amended and finalized, and they will be implemented as such from 1 January 2015 onward.

Creating Value

Issue	Current Strategy	Action and Target in 2015
Financial performance	Continue improving operations, enhancing Taipower's innovation value, and expand and diversify revenue.	● Reduce cost and increase revenue with a target of TWD 12.726 billion, and postpone investment to TWD 35.2 billion. ● 2015 target: completing 2 land development cases. ● Achieve revenue of TWD 22 million from fiber circuit rental business in 2015. ● Expand outsourcing of maintenance to increase revenue.
Organizational transformation and reform	Strengthen employees' awareness of the cost-effectiveness.	● Rationalize investments and appropriately reduce operating costs of all units. ● Clarify production cost expenditure, distribution of tariff revenue, and operating responsibilities of all units. ● Enhance innovation value and increase revenue of all units.
Electricity tariff rationalization	■ Pursue maximum profits, and enhance the company's operating performance. ■ Pursue relieving Taipower's "policy burden" and tariff rationalization	● Present an operations improvement report to the Legislative Yuan Economic Committee twice a year. ● Urge the benefited authorities to budget the preferential tariffs. ● Lobby MOEA to budget subsidies over a 10-year period to compensate Taipower's losses on offshore island power generation by 2023.

Reengineering the Company

Issue	Current Strategy	Action and Target in 2015
Organizational transformation and reform	Set the regulations and rules for the separation of plants and grid functions.	● Release the "Regulations and Rules for the Separation of Plants and Grid Functions" to comply with the transformation to the divisional structure in 2016.
	■ Participate in the discussion of the Electricity Act Amendment held by the government avoid harming Taipower's benefits. ■ Hold conferences to submit Taipower's proposal for amendments. ■ Make Taipower's operation difficulties better known by participating in seminars, hearings, and conferences. ■ Submit and communicate Taipower's amendment proposals with MOEA. ■ Collect and analyze power industry liberalization cases in other countries as reference for the proposed amendments.	● Complete the commissioning of a "Research on the Best Model for a Liberalized Power Industry in ROC", which may serve as reference for policy proposals. ● Provide opinions and/or proposals for amendments to the Electricity Act, the authorities and lawmakers. ● Adjust or develop response policies for possible change. ● Participate in the amendment related Electricity Act "sub-laws" and regulations to ensure Taipower's sustainability, after the amendment has been approved.

Reducing Costs

Issue	Current Strategy	Action and Target in 2015
Financial performance	Ensure a timely, sufficient, and economical fuel supply through fixed-term contracts.	● Diesel inventory reduction goal amounts to NTD 610 million. ● Coal-fired procurement objectives: The actual purchasing price is lower than 6.65% of the market price.
	Promote a centralized procurement system, to improve procurement performance, reduce procurement frequencies and cost.	● According to the size and attributes of each unit procurement set procurement performance indicators and the implementation of performance appraisal. ● Minimize materials and accessories inventory to NTD 15.615 billion.
	Plan high-efficiency coal-fired units.	The "Linkou Power Plant Site Development Feasibility Study" and the "Xingda Power Plant Reconstruction Plan—Phase I Feasibility Study" both include high-efficiency turbines to reduce generation cost.
	Strengthen the quality of overhaul, maintenance, and personnel training in order to improve equipment reliability, raise efficiency, and maximize power output.	● The production target for 2015 is 171.25 GWh. ● Implement the rate of the NPP2 to enhance the pre-furnace pressure operations.

Reducing Costs

Issue	Current Strategy	Action and Target in 2015
Financial performance	Manage capital expenditure.	● Review the financial analysis of new power plants. ● Review the decapitalization of NPP4 assets. ● Adjust the capital expenditure and investment caps in annual budgets. ● Reports of such major construction projects as the “Linkou Power Plant Renewal and Expansion Project” and the “Dalin Power Plant Renewal and Expansion Project” must include the status of expenditure management, and establish a review and feedback mechanism.
Demand management	Encourage customer participation in demand management to reduce peak load and lesser investment in power development.	● In line with the amended “Demand Response Load Management” and the latest information technology to lower system loads, screen customers to participate in the program, especially large customers in order to reduce peak load. ● Promote energy saving methods for customers to reduce power demand. ● Refer to innovation in foreign power industries to promote bidding by customers and automated demand response, and these innovation will be realized in the summer of 2015.
	Build a smart meter infrastructure (AMI), promote customers’ management of their energy consumption.	● Promote the “Online service for high-voltage customers” to ease their management of their energy consumption. ● Continue the trial with 10,000 AMI smart meters with low-voltage customers, and establish an “Online service for low-voltage AMI customers”. ● Expand the AMI smart meter network to 1,500 low-voltage customers on Penghu in line with the “Penghu Low-Carbon Island Project” and Penghu Smart Grid Model Island Project’ of the Bureau of Energy, MOEA.

Issue	Current Strategy	Action and Target in 2015
Stakeholder engagement and information transparency	■ Media outreach: Provide accurate information in easy dialogues and with an attitude of openness and integrity to communicate with the media. ■ Communicate with elected officials: Top management visits lawmakers to clarify issues; provide information to lawmakers and committees. ■ Public information: improve information transparency, strengthen the company's internal and external communication. ■ Social welfare, corporate social responsibility: care for the disadvantaged, support public welfare activities of NGOs and groups.	● Disseminate correct information on the energy issues. ● Respond to controversial issues, clarify those of concern in society. ● Dedicate itself to information transparency of the power industry, present it in easy ways, such as Taipower TV and the company website. ● Continue the visits by the top management to lawmakers; forward update information lawmakers concern. ● Set up exclusive websites for issues of public concern, such as electricity tariffs, and offer multiple channels of communications, such as Facebook and other social media. ● Build a separate "Sustainable development website" to help people understand Taipower's efforts and performance in sustainability. ● Visit high-voltage customers, villages, communities, nationwide industry to offer information on issues of their interest. ● Continue the 'Light of Love' program for the elderly, and the Seeds of Hope reading promotion program for children in remote rural areas.
Energy efficiency	■ Follow the greenhouse gas reduction targets of the government. ■ Develop renewable energy in line with government policy.	● Implement the "Taipower's Energy-Saving and Carbon Reduction Master Plan." ● Implement the ISO 50001 energy management system. ● Hold public briefings for the "Penghu Low-Carbon Island Wind Power Project."
Resource management	■ Set water consumption targets for thermal-fired power plants by which they cannot exceed the average of the past three years. ■ Implement the power generation water footprint program. ■ Strengthen measures to save water, electricity, and oil.	● The water consumption target for thermal-fired power plants in 2015 is less than 92.1 tons / GWh. ● Build a reporting platform for the water footprints of hydro and nuclear power plants, and obtain water footprint certificates for the Xiehe, Xingda, NPP2, and Daguan power plants. ● Obtain verification for the energy management system of the Datan Power Plant. ● Implement the "Four Conservation Project for Government Agencies and Schools".

Issue	Current Strategy	Action and Target in 2015
Waste management	■ Implement and improve the current rescue and recycling of fly ash and gypsum. ■ Further improve the reuse and recycling of wastewater.	● The 2015 targets are: fly ash recycling 1.6 million tons, gypsum production 560,000 tons, fly ash reutilization rate and gypsum application rate both 80% and more. ● The 2015 target for water recycling is 70% or more.
Supply chain management	Ensure the quality of materials and security of power supply.	● Review and manage the company's qualified suppliers. ● Establish a supplier grading system and enhance suppliers' self-management.
	Re-examine IPP contracts in the light of their contract performance.	IPP contracts can only be changed by mutual consent, which requires a lengthy negotiation process. The goal for 2015 is to negotiate every month at least.
Nuclear communication	■ Strengthen communication on nuclear power and nuclear safety. ■ Plan multi-party nuclear safety exercises and emergency drills at the plants.	● Regularly conduct nuclear power plant emergency drill. ● Hold public information sessions before execution of the "NPP2 Spent Fuel Rods Medium-Term Storage Facility Construction Project." ● Hold open sessions on the drafting of the Environmental Impact Statement regarding the "NPP1 Decommissioning Project." ● Continue to carry out mass communication through the two Nuclear Exhibition Centers and through visiting and communicating with the local residents; the targets for 2015 are: 250,000 visitors to the Nuclear Exhibition Centers; 170 instances of communication / visits / interactions with local communities, and a total of 30 instances of communication / visits / interactions with local educational institutions. ● Implement the "Nuclear Safety Culture Improvement Project" at nuclear power plants to build a safer nuclear environment.
	Strengthen nuclear waste outreach.	Set a communication plan for nuclear back-end in 2015.

Improving Customer Service

Issue	Current Strategy	Action and Target in 2015
Reliability and quality of power supply	■ Inspect and maintain critical equipment. ■ Manage planned power interruptions for maintenance work. ■ Conduct regular meetings to review and improve the electrical and mechanical causes of incidents. ■ Hold exercises to simulate power shortages that impact system reliability and security risks. ■ Conduct the renewal and digitization of protection relays.	● Reduce the average duration of power interruptions to 17.750 (minutes / customer · year). ● Reduce the average number of power interruptions to 0.280 (times / customer · year). ● 2015 target for system line loss rate: line loss rate ≦ 4.55%. ● 2015 target for renewal and digitization of protection relays: 84%.

Taiwan Power Company - Balance Sheet

as per 31 December 2014 and 31 December 2013

Unit: TWD 1,000

Assets		2014.12.31 Amount	%	2013.12.31 Amount	%
Current assets					
Cash and cash equivalents	$	2,233,900	-	2,231,327	-
Notes receivable, net		157,126	-	196,195	-
Accounts receivable, net		46,330,134	2	43,955,526	2
Other receivables		2,874,235	-	2,441,580	-
Inventories		34,934,093	2	31,070,767	2
Prepaid expenses		1,258,841	-	1,136,723	-
Other current assets		96,020	-	95,120	-
		87,884,349	4	81,127,238	4
Non-current assets					
Financial assets carried at cost		79,206	-	79,206	-
Investments accounted for by the equity method		2,281,681	-	2,076,396	-
Property, plant and equipment		1,569,268,393	82	1,551,114,245	82
Investment-based real property		14,469,573	1	13,410,642	1
Intangible assets		512,732	-	562,521	-
Deferred income taxes		553,899	-	638,083	-
Nuclear back-end fund		243,078,954	13	233,634,017	12
Other non-current assets		8,374,151	-	11,309,311	1
		1,838,618,589	96	1,812,824,421	96
Total assets	$	**1,926,502,938**	**100**	**1,893,951,659**	**100**

Unit: TWD 1,000

Liabilities and Stockholders' Equity		2014.12.31 Amount	%	2013.12.31 Amount	%
Current liabilities					
Short-term debts	$	64,003,340	3	57,462,418	3
Short-term bills payable, net		196,433,640	10	199,296,723	10
Accounts Payable		43,322,533	2	37,187,079	2
Contract payable		30,765,881	2	14,929,468	1
Other payables		31,752,285	2	29,826,803	2
Current portion of long-term debts		119,305,870	6	133,631,272	7
Other current liabilities		3,407,116	-	2,917,698	-
		488,990,665	25	475,251,461	25
Non-current liabilities					
Bonds, net of current portion		419,001,043	22	390,934,793	21
Loans, net of current portion		351,934,006	18	396,120,029	21
Liabilities reserve		383,762,741	20	371,511,052	20
Reserve for land value increment tax		56,651,454	3	56,565,975	3
Long-term contract payable		2,269,706	-	2,183,897	-
Deferred income		898,023	-	1,031,054	-
Accrued pension cost		8,556,895	1	8,788,762	-
Others		19,829,238	1	11,083,956	-
		1,242,903,106	65	1,238,219,518	65
Total liabilities		**1,731,893,771**	**90**	**1,713,470,979**	**90**
Stockholders' Equity Attributable to the Company					
Ordinary share capital		330,000,000	17	330,000,000	18
Losses to be compensated		(135,401,984)	(7)	(149,531,940)	(8)
Other interests		11,151	-	12,620	-
Total stockholders' equity		194,609,167	10	180,480,680	10
Total liabilities and stockholders' equity	$	**1,926,502,938**	**100**	**1,893,951,659**	**100**

Taiwan Power Company - Statements of Income

From 1 January through 31 December of 2014 and 2013

Unit: TWD 1,000

		2014		2013	
		Amount	%	Amount	%
Operating revenues					
Sale of electricity	$	632,392,456	98	584,536,304	99
Other		10,354,046	2	8,195,569	1
Total operating revenues		642,746,502	100	592,731,873	100
Operating costs		600,225,464	93	582,080,005	98
Gross profit		42,521,038	7	10,651,868	2
Operating expenses					
Marketing		6,097,524	1	5,957,590	1
General and administrative		1,371,003	-	1,408,326	-
Research and development		3,379,048	1	3,247,169	1
Total operating expenses		1,0847,575	2	10,613,085	2
Other gains and losses		(558,101)	-	(1,943,168)	-
Operating net profit (loss)		31,115,362	5	(1,904,385)	-
Non-operating income and expenses					
Income from interests		3,556,286	1	2,975,193	1
Other benefits and losses		(441,663)	-	902,364	-
Financial cost		(20,485,498)	(3)	(19,845,520)	(3)
Share of corporate profit or loss recognized using the equity method		402,600	-	83,073	-
Total operating income and expenses		(16,968,275)	(2)	(15,884,890)	(2)
Pre-tax net profit (loss)		14,147,087	3	(17,789,275)	(2)
Less: Income tax payments (returns)		168,203	-	(530,049)	-
Net profit (loss) of reporting period		13,978,884	3	(7,259,226)	(2)
Other comprehensive income:					
Defined benefit plan actuarial interest		182,015	-	2,087,379	-
Share of other comprehensive income recognized using the equity method		(1,770)	-	2,285	-
Less: income tax on portion related to other comprehensive income or loss		30,642	-	357,439	-
Other comprehensive income (net of tax)		149,603	-	1,732,225	-
Total comprehensive profit or loss of the reporting period	$	14,128,487	3	(15,527,001)	(2)
Earnings (loss) per share (TWD)	$		0.42		0.52

Taiwan Power Corporation Employee Compensation and Benefits in 2014 and 2013

Unit: TWD 1,000

	2014	2013
Employee benefits expenditure	**Amount**	**Amount**
Employment retirement benefits		
Defined contribution plan	$ 643,315	$ 652,125
Defined benefit plan	707,296	716,919
	1,350,611	1,369,044
Other employee benefits		
Payroll expenses	20,555,007	20,745,438
Insurance costs	2,032,250	2,014,321
Other	11,491,039	11,557,542
	34,078,296	34,317,301
Total	35,428,907	35,686,345
Total of functional expenditure		
Operating costs	30,292,501	30,495,428
Operating expenses	5,136,406	5,190,917
Total	35,428,907	35,686,345

As stated in the Third-Party Assurance Statement, the following information has been verified.

General Standard Disclosures

Indicator	Indicator Description	Corresponding Chapter and Section	Page
Strategy and Analysis			
G4-1	Statement from the most senior decision-maker of the organization about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	Statement from the Chairman	2
G4-2	Description of key impacts, risks, and opportunities.	1.2.5 Risk Management	19
Organizational Profile			
G4-3	Name of the organization.	1.1.1 Introduction	6
G4-4	Primary brands, products, and/or services.	1.1.1 Introduction	6
G4-5	Location of the organization's headquarters.	1.1.1 Introduction	6
G4-6	Number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	1.1.1 Introduction	6
G4-7	Nature of ownership and legal form.	1.1.1 Introduction	6
G4-8	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	Corporate Highlights 2014 1.1.1 Introduction	-, 6
G4-9	Scale of the organization.	1.1.1 Introduction	6
G4-10	Total workforce by employment type, gender, employment contract and region.	4.2.1 Workforce Structure Overview	55
G4-11	Percentage of employees covered by collective bargaining agreements.	4.2.2 Labor-Management Communication Channels	56
G4-12	Describe the organization's supply chain.	1.1.1 Introduction	6
G4-13	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain.	1.1.1 Introduction	6
G4-14	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	1.2.5 Risk Management	19
G4-15	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	No such situation to report.	-
G4-16	Memberships in associations.	1.1.3 Participation in External Organizations	9
Identified Material Aspects and Boundaries			
G4-17	List all entities included in the organization's consolidated financial statements or equivalent documents.	Taipower does not have such financial statements. This report only covers Taipower itself.	-
G4-18	Explain the process for defining the report content and the Aspect Boundaries, and how the Reporting Principles have been implemented.	1.3.2 Identification of Key Sustainability Issues	22
G4-19	List all the material Aspects identified in the process for defining report content.	1.3.2 Identification of Key Sustainability Issues	22
G4-20	For each material Aspect, report the Aspect Boundary within the organization.	1.3.2 Identification of Key Sustainability Issues	22
G4-21	For each material Aspect, report the Aspect Boundary outside the organization.	1.3.2 Identification of Key Sustainability Issues	22
G4-22	Explain the effect of any restatements of information provided in previous reports.	No such situation to report.	-
G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries.	No such situation to report.	-
Stakeholder Engagement			
G4-24	List of stakeholder groups engaged by the organization.	1.3.1 Identification of Stakeholders	22
G4-25	Basis for identification and selection of stakeholders with whom to engage.	1.3.1 Identification of Stakeholders	22
G4-26	Organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	4.5.1 Stakeholder Concerns and Engagement Performance	67

Indicator	Indicator Description	Corresponding Chapter and Section	Page
G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns.	4.5.2 Responses to Public-Concerned Issues 4.5.3 Information Transparency	77, 77
Report Profile			
G4-28	Reporting period.	Reporting Principles	1
G4-29	Date of most recent previous report.	Reporting Principles	1
G4-30	Reporting cycle.	Reporting Principles	1
G4-31	Contact point for questions regarding the report or its contents.	Reporting Principles	1
G4-32	Report the 'in accordance' option the organization has chosen, and the GRI Content Index for the chosen option.	Reporting Principles GRI G4 Index	1, 103
G4-33	Policy and current practice with regard to seeking external assurance for the report.	Third-Party Assurance Statement	109
Governance			
G4-34	Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	1.2.1 Governance Structure 1.2.2 Sustainability	11, 14
G4-35	Process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees.	1.2.2 Sustainability	14
G4-36	Whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body.	1.2.2 Sustainability	14
G4-37	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics.	1.2.2 Sustainability	14
G4-38	The composition of the highest governance body and its committees.	1.2.1 Governance Structure 1.2.2 Sustainability	11, 14
G4-40	Nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members.	1.2.1 Governance Structure	11
G4-41	Processes for the highest governance body to ensure conflicts of interest are avoided and managed.	1.2.1 Governance Structure	11
G4-42	The highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	1.2.1 Governance Structure 1.2.2 Sustainability	11, 14
G4-45	The highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities.	1.2.2 Sustainability	14
G4-46	The highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics.	1.2.2 Sustainability 1.2.5 Risk Management	14, 19
G4-47	The frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities.	1.2.2 Sustainability 1.2.5 Risk Management	14, 19
G4-49	The process for communicating critical concerns to the highest governance body.	1.2.1 Governance Structure 4.2.2 Labor-Management Communication Channels	11, 56
G4-51	How performance criteria in the remuneration policy relate to the highest governance body's and senior executives' economic, environmental and social objectives.	1.2.1 Governance Structure	11
Ethics and Integrity			
G4-56	Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	1.2.3 Integrity Management	17

Indicator	Indicator Description	Corresponding Chapter and Section	Page
G4-57	The internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity, such as helplines or advice lines.	1.2.3 Integrity Management	17
G4-58	The internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines.	1.2.3 Integrity Management	17
Electric Utilities Sector Disclosures - Organizational Profile			
EU1	Installed capacity (MW), broken down by primary energy source and by regulatory regime.	Corporate Highlights 2014	-
EU2	Net energy output broken down by primary energy source and by regulatory regime.	Corporate Highlights 2014	-
EU3	Number of residential, industrial, institutional and commercial customer accounts.	Corporate Highlights 2014	-
EU4	Length of above and underground transmission and distribution lines by regulatory regime.	1.1.1 Introduction	6
EU5	Allocation of CO_2e emissions allowances or equivalent, broken down by carbon trading framework.	Not applicable as Taiwan does not have a carbon emission trading system at present.	-

Specific Standard Disclosures

Economic

Aspect	Indicator	Indicator Description	Corresponding Chapter and Section	Page
Economic Performance	DMA	Disclosure on Management Approach	1.1.5 Management Philosophy and Strategy 2. Creating Value 6. Reengineering the Company	10, 34, 91
	G4-EC1	Direct economic value generated and distributed (EVG&D) separately at country, regional or market level, including revenues, operating costs, employee wages and benefits, payments to providers of capital, payments to government (by country), and community investments	Financial Performance	101
	G4-EC2	Risks and opportunities posed by climate change that have the potential to generate substantive changes in operations, revenue or expenditure	1.2.5 Risk Management	19
	G4-EC4	Total monetary value of financial assistance received by the organization from governments during the reporting period	2.2.2 Pursuing Relaxation of the Policy Burden	38
Indirect Economic Impacts	DMA	Disclosure on Management Approach	2.2 Promoting Tariff Rationalization 5.1 Enhancing Reliability of Power Supply	37, 80
	G4-EC7	Development and impact of infrastructure investments and services supported	5.1 Enhancing Reliability of Power Supply	80
	G4-EC8	Significant indirect economic impacts, including the extent of impacts	2.2 Promoting Tariff Rationalization	37
Procurement Practices	DMA	Disclosure on Management Approach	4.3 Supplier Management	57
	G4-EC9	Proportion of spending on local suppliers at significant locations of operation	4.3 Supplier Management	57
Availability and Reliability	DMA	Disclosure on Management Approach	5.1 Enhancing Reliability of Power Supply	80
	EU10	Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime	5.1.2 Improving the Energy Mix	81

Aspect	Indicator	Indicator Description	Corresponding Chapter and Section	Page
De-mand-Side Manage-ment	DMA	Disclosure on Management Approach	3.3 Demand Management	42
Plant Decom-missioning	DMA	Disclosure on Management Approach	4.4.1 Nuclear Safety and Crisis Response	59
System Efficiency	EU11	Average generation efficiency of thermal plants by energy source and by regulatory regime	1.4.1 Key Performance	30
	EU12	Transmission and distribution losses as a percentage of total energy	Corporate Highlights 2014 1.4.1 Key Performance	-, 30

Environmental

Aspect	Indicator	Indicator Description	Corresponding Chapter and Section	Page
Materials	DMA	Disclosure on Management Approach	3.1 Raising Procurement Per-formance	39
	G4-EN1	Materials used by weight or volume	Environmental Footprints of Taipower Operation in 2014	53
	G4-EN2	Percentage of materials used that are recy-cled input materials	Environmental Footprints of Taipower Operation in 2014	53
Energy	DMA	Disclosure on Management Approach	4.1.3 Resource Management	50
	G4-EN3	Energy consumption within the organization	4.1.3 Resource Management	50
	G4-EN5	Energy intensity	1.4.1 Key Performance	30
	G4-EN6	Reduction of energy consumption	3.2 Raising Power Generation Efficiency 4.1.3 Resource Management	41, 50
	G4-EN7	Reductions in energy requirements of prod-ucts and services	3.3 Demand Management	42
Water	DMA	Disclosure on Management Approach	4.1.3 Resource Management	50
	G4-EN8	Total water withdrawal by source	4.1.3 Resource Management	50
	G4-EN9	Water sources significantly affected by withdrawal of water	No such situation to report.	-
	G4-EN10	Percentage and total volume of water recy-cled and reused	Environmental Footprints of Taipower Operation in 2014	53
Emissions	DMA	Disclosure on Management Approach	4.1.2 Mitigating Climate Change	47
	G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	4.1.2 Mitigating Climate Change	47
	G4-EN18	Greenhouse gas (GHG) emissions intensity	4.1.2 Mitigating Climate Change	47
	G4-EN19	Reduction of greenhouse gas (GHG) emis-sions	4.1.2 Mitigating Climate Change	47
Effluents and Waste	DMA	Disclosure on Management Approach	4.1.4 Waste Management and Reduction	54
	G4-EN22	Total water discharge by quality and desti-nation	4.1.3 Resource Management	50
	G4-EN24	Total number and volume of significant spills	No such situation to report.	-
	G4-EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transport-ed waste shipped internationally	No such situation to report.	-
Products and Ser-vices	DMA	Disclosure on Management Approach	3.3 Demand Management 4.1 Creating a Sustainable Environment	42, 46
	G4-EN27	Extent of impact mitigation of environmen-tal impacts of products and services	3.3 Demand Management 4.1 Creating a Sustainable Environment	42, 46

Aspect	Indicator	Indicator Description	Corresponding Chapter and Section	Page
Compliance	DMA	Disclosure on Management Approach	1.2.4 Legal Compliance	18
	G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	1.2.4 Legal Compliance	18
Overall	DMA	Disclosure on Management Approach	4.1.3 Resource Management	50
	G4-EN31	Total environmental protection expenditures and investments by type	4.1.3 Resource Management	50
Supplier environmental assessment	DMA	Disclosure on Management Approach	4.3 Supplier Management	57
	G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	4.3 Supplier Management	57
Environmental Grievance Mechanisms	DMA	Disclosure on Management Approach	4.5.4 Complaint Access	79
	G4-LA16	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	4.5.4 Complaint Access	79

Social

Aspect	Indicator	Indicator Description	Corresponding Chapter and Section	Page
Labor Practices and Decent Work				
Labor/ Management Relations	DMA	Disclosure on Management Approach	4.2.2 Labor-Management Communication Channels	56
	G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	4.2.2 Labor-Management Communication Channels	56
Supplier Assessment for Labor Practices	DMA	Disclosure on Management Approach	4.3 Supplier Management	57
	G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	4.3 Supplier Management	57
Labor Practices Grievance Mechanisms	DMA	Disclosure on Management Approach	4.2.2 Labor-Management Communication Channels	56
		Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	4.2.2 Labor-Management Communication Channels	56
Human Rights				
Freedom of Association and Collective Bargaining	DMA	Disclosure on Management Approach	4.2.2 Labor-Management Communication Channels	56
	G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	No such situation to report.	-
Supplier Human Rights Assessment	DMA	Disclosure on Management Approach	4.3 Supplier Management	57
	G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	4.3 Supplier Management	57
Human Rights Grievance Mechanisms	DMA	Disclosure on Management Approach	4.5.4 Complaint Access	79
	G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	4.5.4 Complaint Access	79
Society				
Local Communities	DMA	Disclosure on Management Approach	4.1.1 Implementing Environmental Impact Assessments	46
	G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	4.1.1 Implementing Environmental Impact Assessments	46
	G4-SO2	Operations with significant actual or potential negative impacts on local communities	4.1.1 Implementing Environmental Impact Assessments	46
	EU22	Number of people physically or economically displaced and compensation, broken down by type of project	No such situation to report.	-

Aspect	Indicator	Indicator Description	Corresponding Chapter and Section	Page
Compliance	DMA	Disclosure on Management Approach	1.2.4 Legal Compliance	18
	G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	No such situation to report.	-
Supplier Assessment for Impacts on Society	DMA	Disclosure on Management Approach	4.3 Supplier Management	57
	G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	4.3 Supplier Management	57
Grievance Mechanisms for Impacts on Society	DMA	Disclosure on Management Approach	1.2.3 Integrity Management 4.5.4 Complaint Access	17, 79
	G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	1.2.3 Integrity Management 4.5.4 Complaint Access	17, 79
Disaster / Emergency Planning and Response	DMA	Disclosure on Management Approach	4.4.1 Nuclear Safety and Crisis Response 5.1.4 Enhancing the Accessibility of Electricity Services	59, 88
Product and Service Labeling	DMA	Disclosure on Management Approach	1.2.3 Integrity Management	17
	G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	No such situation to report.	-
	G4-PR5	Results of surveys measuring customer satisfaction	5.2 Strengthening Customer Communication	89
Compliance	DMA	Disclosure on Management Approach	1.2.4 Legal Compliance	18
	G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	No such situation to report.	-
Access	EU28	Power outage frequency	Corporate Highlights 2014 5.1.5 Maintaining Reliability of Power Supply	-, 88
	EU29	Average power outage duration	Corporate Highlights 2014 5.1.5 Maintaining Reliability of Power Supply	-, 88
	EU30	Average plant availability factor by energy source and by regulatory regime	1.1.1 Introduction	6
Provision of Information	DMA	Disclosure on Management Approach	5.2 Strengthening Customer Communication	89

INDEPENDENT ASSURANCE OPINION STATEMENT

2015 Taiwan Power Company Sustainability Report

The British Standards Institution is independent to Taiwan Power Company (hereafter referred to as TPC in this statement) and has no financial interest in the operation of TPC other than for the assessment and verification of the sustainability statements contained in this report.

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Scope

The scope of engagement agreed upon with TPC includes the followings:

1. The whole report and focus on systems and activities during the 2014 calendar year on the Taiwan Power Company and relevant operations in Taiwan.
2. The evaluation of the nature and extent of the TPC's adherence to all three AA1000 AccountAbility Principles in this report as conducted in accordance with type 1 of AA1000AS (2008) assurance engagement and therefore, the information/data disclosed in the report is not verified through the verification process.

This statement was prepared in English and translated into Chinese for reference only.

Opinion Statement

We conclude that the 2015 TPC Sustainability Report Review provides a fair view of the TPC programmes and performances during 2014. We believe that the 2014 economic, social and environmental performance indicators are fairly represented.

Our work was carried out by a team of (CSR) report assurors in accordance with the AA1000 Assurance Standard (2008). We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that TPC's description of their approach to AA1000 Assurance Standard and their self-declaration of 'in accordance' with the G4 sustainability reporting guidelines: the Core option were fairly stated.

Methodology

Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:

- review of issues raised by external parties that could be relevant to TPC's policies to provide a check on the appropriateness of statements made in the report
- discussion with managers and staffs on TPC's approach to stakeholder engagement. However, we had no direct contact with external stakeholders
- 20 interviews with staffs involved in sustainability management, report preparation and provision of report information were carried out
- review of key organizational developments
- review of the findings of internal audits
- review of supporting evidence for claims made in the reports
- an assessment of the company's reporting and management processes concerning this reporting against the principles of inclusivity, materiality and responsiveness as described in the AA1000 AccountAbility Principles Standard (2008)

Conclusions

A detailed review against the AA1000 AccountAbility Principles of Inclusivity, Materiality and Responsiveness as well as the G4 sustainability reporting guidelines is set out below:

Inclusivity

In this report, it reflects that TPC has continually made a commitment to its stakeholders, as the participation of stakeholders has been conducted in developing and achieving an accountable and strategic response to sustainability. There are fair reporting and disclosures for economic, social and environmental information in this report, so that appropriate planning and target-setting can be supported. In our professional opinion the report covers the TPC's inclusivity issues.

Materiality

The TPC has established relative procedure in company level, as the issues which were identified by all departments have been prioritized according to the extent of impact and applicable criterion for sustainable development of company. Therefore, material issues were completely analyzed and the relative information of sustainable development was disclosed to enable its stakeholders to make informed judgments about the company's management and performance. In our professional opinion the report covers the TPC's material issues.

Responsiveness

TPC has implemented the practice to respond to the expectations and perceptions of its stakeholders. An Ethical Policy for the TPC is developed and provides the opportunity to further enhance the TPC's responsiveness to stakeholder concerns. In our professional opinion the report covers the TPC's responsiveness issues; however, the future report should be further enhanced by the following areas:

— Encouraging work towards a Type 2 of AA1000AS (2008) engagement with a view to providing the reliability of sustainability performance information that stakeholder concerns.

GRI-reporting

TPC provided us with their self declaration of 'in accordance' with the G4 sustainability reporting guidelines: the Core option (at least one Indicator related to each identified material Aspect). Based on our review, we confirm that social responsibility and sustainable development performance indicators with reference to the GRI Index are reported, partially reported or omitted. In our professional opinion the self declaration covers the TPC's social and sustainability issues; however, the future report will be further enhanced by the following areas:

— Benchmarking the performance indicators from peers practices in the future report.

— Base on transparency principle, encouraging disclosure 'in accordance' with the GRI G4 Guidelines: Comprehensive option in order to strengthen stakeholder's confidence.

Assurance level

The moderate level assurance provided is in accordance with AA1000 Assurance Standard (2008) in our review, as defined by the scope and methodology described in this statement.

Responsibility

This sustainability report is the responsibility of the TPC's chairman as declared in his responsibility letter. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Competency and Independence

The assurance team was composed of Lead auditors and Carbon Footprint Verifiers experienced in Engineering sector, and trained in a range of sustainability, environmental and social standards including AA1000 AS, ISO14001, OHSAS18001, ISO14064 and ISO 9001. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

For and on behalf of BSI:

Managing Director BSI Taiwan

06 July 2015

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The World Bank "Doing Business Report 2015" ranking

- Taiwan ranked second worldwide on the "Getting electricity" area.

Tenth "Asian Power Awards" from Asian Power Magazine

- Silver Award for Information Technology Project of the Year Award for "Novel technology for Visualized Quick Judgments of Electricity Status on Islands and Their Borders."
- "Coal Ash Controlled Low Strength Material (CA-CLSM) applied in Taichung Power Plant Ash Concrete Pond Bank Works" won the Silver Award for Coal Power Project of the Year and the Bronze Award for Environmental Upgrade of the Year.
- "Daan EHV Substation Construction Project" won the Bronze Award for "Transmission & Distribution Project of the Year."

"14th Gold Medal for Public Works" of the Public Construction Commission, Executive Yuan

- Taichung Longjing (II) Solar Photovoltaic Project won the Award of Excellence for New Facilities.
- The Xiben Distribution Substations Construction Project won the Award of Excellence for Architecture.
- The Dalin Power Plant Renovation Project won the Award of Excellence for Water Conservancy.

"2014 Taiwan Corporate Sustainability Award" of the Taiwan Institute for Sustainable Energy (TAISE)

- Gold Medal in the category Large Enterprises, Service Industry in the 2014 Taiwan Top 50 Corporate Sustainability Report Awards.
- Growth through Innovation Award.

"The 23rd ROC Enterprise Environmental Protection Award" of the Environmental Protection Administration, Executive Yuan

- Silver Award for the Datan Power Plant.
- Bronze Award for the Dajia River Power Plant.

Promoting public works and personnel with excellence in occupational health and safety

- In the "Workplace Health Promotion Summit and Outstanding Workplace Awards 2014" of the Ministry of Labor, Taipower's : Integrated Construction Department, Construction Department for the Northern Region, and the Construction Department for the Southern Region won Prizes of Excellence for Excellent Public Engineering.
- Taipower Headquarters won the Excellence Award for Healthy Workplace Certification 2014.
- Taipower Headquarters and the Dalin Power Plant were awarded the 2014 Health Pilot Award for a Healthy Workplace by the Health Promotion Administration, Ministry of Health and Welfare.
- Taipei West District Office was awarded the Happy Healthy People Award by the Health Promotion Administration, Ministry of Health and Welfare.

Ministry of Economic Affairs' "27th Nationwide Unity Activities Contest"

- The project "Maintenance Frequency Reduction for Trash Catchment Bars" won the bronze cup in the Supreme Category.

For further details on these awards, please visit the Taipower Sustainable Development website.

Taipower Energizes Taiwan