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Provider of Services for Smart Living



Development Vision

With the goal of serving as Taiwan's provider of services for smart living, Taipower is working to make power services smarter and immediately accessible by introducing new 5G and AIoT technologies and equipment to meet user needs. At present, Taipower is pursuing both demand response and energy conservation as key elements of demand side management. Demand response analyzes power supply data through smart meter deployment so the electricity consumption of users can be better understood. This makes the match between power supply and demand more immediate, and effectively guides customers to use electricity through the time-of-use rates. Energy conservation efforts are principally aimed at avoiding the unnecessary waste of electricity. Taipower has implemented power-saving incentive measures and built multiple information transmission channels so that the public can participate in the work of energy conservation and carbon reduction.

Every year, Taipower continues to promote and refine its various demand response measures. In line with its deployment of smart meters, the Company will develop diverse demand response solutions to help reduce net nighttime loads and combine the automatic demand response solutions of smart home appliances and energy management systems with real-time prices that dynamically reflect the power supply situation and encourage users to manage electricity consumption more flexibly. Demand response uses monthly operation planning, day-ahead economic scheduling, and same-day economic dispatch to provide flexible adjustments in power system dispatching. The demand response participation target in 2021 was 2.55GW and is expected to reach 3.0GW by 2030.

Performance Highlights

- Implemented Time-of-Use (TOU) rates to stimulate the management of people's power consumption, cumulatively suppressing the peak load by **4.11 GW** in 2021
- Promoted demand bidding and bolstered user participation to suppress peak loads and the implementation of demand-response load management measures on the highest load days throughout 2021 and effectively reducing peak loads by **1.07 GW**
- Provided communities and associations with power-saving advocacy services. A total of **1,460 sessions** were held in 2021, attracting **170,000 participants**
- Taipower's Power-Saving Service Team visited **4,231 customers** in 2021, with an estimated power saving of **99.92 GWh**
- In 2021, Taipower's 1911 customer service hotline received more than **2.004 million** calls. The proportion of calls that were answered within 20 seconds was **95.40%**
- In 2021, a total of **5,133** dedicated services were provided for corporate customers

5.1 Smart Electricity Service

5.1.1 Demand Side Management Measures 103-2 103-3 203-2

In recent years, the demand for electricity in Taiwan has been growing. Coupled with the difficulty of setting up new power units and climatic anomalies, this has led to an increasingly tight supply of electricity. According to Article 47, paragraph 4 of the Electricity Act, the Electricity Retailing Enterprise shall draft an annual incentive program that encourages and assists users to save electricity. The plan will be submitted to the electricity industry regulatory authority for review. Taipower's current approach entails pursuing both demand response and energy conservation as two key elements of demand side management. This includes implementing various demand response load management measures, stimulating multiple time tariffs, adjusting and piloting new Time-of-Use (TOU) rates, organizing power saving incentives and holding assorted power saving promotions to guide customers to manage their electricity consumption. It is hoped that by creating an atmosphere of power saving, Taipower will be able to drive the collective effects of national power saving, making energy saving and the suppression of peak loads a national movement. This will lead to a win-win situation for the power industry, customers, and the environment.

Demand-Based Bidding

Since 2015, Taipower has promoted feedback pricing, which determines rates as customers voluntarily reduce their electricity consumption, and demand bidding, which takes place during the peak period of summer power consumption. If customers reduce their electricity consumption after winning a bid, the saved electricity can be sold back to Taipower according to the quoted price. Taipower's demand bidding scheme is diversified, using various pricing mechanisms to provide incentives and give users autonomy. The approach guides users to change their electricity consumption habits and help achieve a stable power supply. In the future, Taipower plans to provide more real-time power consumption information through smart meters, and to refine demand response scheme designs. For example, the Company will coordinate the increasing number of renewable energy grid-connections to adjust periods for users to suppress power consumption. This will provide more flexible resources for the power system. Taipower will also be reviewing and piloting a variety of demand response plans.

Time-of-Use Rates

The Time-of-Use (TOU) rates set different electricity prices for peak and off-peak periods. This reflects the power supply costs in different periods and guides users to reduce or shift peak power consumption to off-peak periods. Taipower has now used TOU rates for more than 40 years since they were first employed in 1979. At present, there are a total of 12 TOU rates for all kinds of customers. Among them, TOU rates have been fully applied to high-voltage users since 1989, while low-voltage users are free to choose to participate or not.

Time-of-Use (TOU) Rates User Ratio

Power Consumption Category	Total Customers (Households)	TOU Customers (Households)	Ratio (%)
Meter-rated lighting for non-business	13,204,434	47,295	0.36
Meter-rated lighting for business	1,034,448	118,742	11.48
Low-voltage electricity	301,722	36,128	11.97
High-voltage electricity	24,686	24,686	100.00
Ultra-high-voltage electricity	661	661	100.00
Total	14,565,951	227,512	1.56

Note: Except for contracted light and contracted power being billed on a capacity basis without seasonality, the rest of the electricity tariff is applied seasonally. The proportion of users is 99%.

Description of Electricity Type

Supply Voltage	Category	Scope of Application	Example of Application
Low voltage	Contracted light and electricity	Lights, small appliances, and alarms for outdoor public facilities	Public street lights, alarms
	Meter-rated lighting	Electricity for non-business	Residences
		Electricity for business	Small-sized stores
	Low-voltage electricity	For lights, small appliances, and electric power in production or non-production premises with a contracted capacity of more than 1 kW but less than 100 kW. In cases where the power supply is 380V with no technical difficulties, the capacity can be expanded to 499 kW	Medium-sized agencies, schools, supermarkets, medium-sized shopping malls, small and medium-sized factories
High voltage and above	High-voltage electricity	For lights, small appliances, and electric power in production or non-production premises with a contracted capacity of more than 100 kW	Large-sized factories, agencies, schools, banks, department stores
	Ultra-high voltage electricity		Mega factories, MRT, airports

In line with the deployment and application of smart meters, Taipower launched simplified residential/commercial TOU rates in 2016 and new, standard three-stage TOU rates for meter-rated lighting and low-voltage electricity on May 1, 2021 to provide customers with multiple options. In response to the increase in renewable generation, the peak and off-peak hour tariffs were adjusted to meet the system needs, Taipower launched a Trial Tariff Program for Time Slot Adjusted TOU rates in October 2021. In the future, Taipower will continue to develop diversified tariffs and demand response schemes in conjunction with the deployment of smart meters. The Company will integrate smart home appliances and energy management systems, in order to manage customers' power consumption more flexibly with price signals and increase load management efficiency.

Demand Side Management Measures

	Measure	Description	Applicable customers	Results
TOU Rates	Use of TOU rates since 1979	Reflects the cost of electricity during different periods. Encourages off-peak electricity use to reduce energy consumption at peak hours	Optional for meter-rated lighting and low-voltage customers; applicable to all high-voltage customers	The cumulatively suppressed peak load reached 4.11 GW in 2021
	Launched Simplified Residential/Commercial TOU rates in 2016	Provides more diverse rates for residential/commercial customers. Price signals are used to guide users to reduce electricity consumption during peak hours, thereby achieving the goal of reducing peak load	Residential, small shops and low-voltage customers	
	Added new three-stage TOU rates for standard type and low-voltage meter-rated lighting in 2021			
	Launched a "Trial Tariff Program for Time Slot Adjusted TOU rates" that will run from October 2021 to September 2022	A new tariff scheme for peak and off-peak hours to help cope with system needs. Peak hours are adjusted from 10 - 12 and 13 - 17 to 16 - 22 hours. Half and off-peak hours are also changed	TOU rate customers	
Demand Response Load Management Measures	Implemented Air Conditioner Duty Cycling Load Control Measures in 1991	Central air-conditioning systems are paused for 15 minutes in every 60 minutes of operation. Packaged air conditioning systems are paused for eight minutes with 22 minutes of operation to suppress peak loads	Non-productive customers (e.g. office buildings, schools)	Daily peak load reduced by 1.07 GW on the peak load day of 2021
	Implemented Power Consumption Reduction Measures in 1987	Provides reduced rates as incentives to encourage customers to reduce electricity consumption during peak hours or shift to off-peak hours, to reduce system peak loads	Either (super) high-voltage customers of more than 100 kW of capacity as specified in their contracts (could include factories and educational institutions) or schools	
	Implemented Demand-Based Bidding Measures in 2015	Through user-defined feedback pricing, more autonomy is given to customers to attain their power-consumption mitigation potential and improve system loads. This mitigates the demand for new power development and reduces the risk of power shortages	Above High-voltage frequent power users	
	Implemented new Demand-Based Bidding Measures - Joint Solution in 2017	Allows customers to apply for Demand-Based Bidding in groups	Above High-voltage frequent power users	
	Implemented "emergency response measures" and "pact-guarantees" in 2021	In line with load reduction in cases of emergency the system improves demand-side resilience	Above High-voltage frequent power users	
	Implemented "flexible night reductions" from 2022	Offers flexible suppression options for different hours during night peak periods to encourage users to reduce power consumption	Above High-voltage frequent power users	
Power-Saving Service Team		Monthly visits to high-voltage users. Teams use high-voltage AMI data analysis and simple equipment diagnostic questionnaires (air-conditioning equipment, motors, lighting equipment, etc.) that help users grasp power consumption, inventory power saving potential, and promote Demand Response Measures to maintain a stable power supply	Above High-voltage users	Taipower's Power-Saving Service Team visited 4,231 users in 2021, with an estimated power saving potential of 99.92 GWh
Community Energy Saving Campaigns		Provides free power-saving advocacy services for communities and associations. Taipower uses assemblies to promote power-saving, share energy-saving related knowledge and experiences. The Company advocates proper power-saving techniques, the use of high-efficiency energy-saving products (e.g. LED lighting), and provides electricity improvement recommendations for public facilities	Local communities, associations	A total of 1,460 seminars were organized in 2021, with approximately 170,000 participants

5.1.2 Power Saving Performance

In order to encourage energy conservation in practice, Taipower has employed power-saving incentives since July 2008. The Company continues to introduce new measures to maintain customer motivation and prompt additional power-saving over the long term. In order to increase user interaction and the effectiveness of voluntary power saving, a registration mechanism was introduced in 2018. Customers who sign up through the website, customer service hotline, or over the counter will receive a reward of \$0.6 per kWh of electricity saved, with a minimum bonus of \$84 per period (2 months). The same year, a Power-Saving Reward Points app was launched. This allows users to collect points by participating in various energy-saving puzzle activities on the app. Points may be redeemed for prizes or used to participate in sweepstakes. The goal is to promote power-saving within the public and to create a power-saving culture and habits. Taipower will continue to organize power-saving promotional activities that convey power-saving concepts through innovative and amusing approaches. Taipower will also operate through diversified marketing channels to highlight topics and increase the exposure and popularity of the activities that enhance public awareness of power-saving.



Power Savings Reward Performance in 2021

Year	Amount of saved electricity (billion kWh)	Reward amount for saving electricity (NT\$100 million)	Carbon dioxide emission reduction (10,000 metric tons)	Equivalent number of Daan Forest Parks (for CO ₂ absorption capacity) in one year
2019	1.43	11.7	76	2,062
2020	1.19	10.3	61	1,638
2021	1.49	11.8	75	1,924






Note: 1. The calculation of electricity consumption reduction for the current year is based on the previous year, which is also the base year.
 2. The performance of power-saving rewards is derived from the statistical data of customers who have logged in and completed power-saving reward activities (3.34 million customers in 2018, 3.95 million customers in 2019, and 4.22 million customers in 2020, and 4.34 million customers in 2021).
 3. Based on the nation's 2019 electricity emission coefficient of 509 grams CO₂e/kWh as announced by the Bureau of Energy, Ministry of Economic Affairs in June 2020 and the Bureau of Energy's 2020 report that the absorption capacity of one Daan Forest Park is 389 metric tons of CO₂ per year.






5.2 Stakeholder Communication

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Stakeholder Communication Performance

Taipower values stakeholder voices and communicates with them through multiple channels. In addition to listening to and collecting suggestions for Taipower's sustainable development, the Company also incorporates those suggestions into management measures or operational behavior optimization projects in order to respond to stakeholders' appeals and expectations.

Stakeholders	Main Concerns	Frequency and Method of Engagement	2021 Engagement Performance	Related Action
 Board of Directors	<ul style="list-style-type: none"> Transforming into a power utility group Corporate governance and sustainable development 	<ul style="list-style-type: none"> One regular Board and Functional Review Committee meeting per month At least one Audit Committee meeting per quarter Continuing education for directors (including independent directors) Annual Board performance evaluations 	<ul style="list-style-type: none"> Held 15 Board meetings, six Investment and Business Plan Review Committee meetings, and seven Land Management Review Committee meetings Held six Audit Committee meetings Professional training in corporate governance for directors (including independent directors) totaled 210 hours The 2021 performance evaluation was carried out as per the "Performance Evaluation Guidelines for Boards of Directors," and the evaluation results have been disclosed on Taipower's official website Highlight reports on Taipower's transition status 	<ul style="list-style-type: none"> Regularly reported to the Board of Directors on progress highlights Conducted timely reporting on projects
 Shareholders	<ul style="list-style-type: none"> Corporate governance and sustainable development Management and financial performance Technology R&D and innovation 	<ul style="list-style-type: none"> Shareholders' meetings Taipower's official website and Market Observation Post System (MOPS) 	<ul style="list-style-type: none"> Regular shareholders' meetings Market Observation Post System (MOPS) Taipower's official website Corporate Governance / Shareholder's Area 	<ul style="list-style-type: none"> Communicate status with shareholders through the minutes of the regular shareholders' meeting
 Employees	<ul style="list-style-type: none"> Transforming into a power utility group Corporate governance and sustainable development Worker health and safety 	<ul style="list-style-type: none"> On-the-job training Labor-management meetings Keynote speeches, symposiums Communication briefings on organizational transformation 	<ul style="list-style-type: none"> On-the-job training at the Training Institute, training organized by each unit, and external training for a total of 69,938 participants Held seven labor-management meetings Organized five keynote speeches 	<ul style="list-style-type: none"> Organized corporate-level labor-management meetings and labor-management communication seminars for each system Collected proposals from union member representatives or branch directors and implemented them after discussion and resolution at meetings
 Partners	<ul style="list-style-type: none"> Renewable and clean energy development Worker health and safety Climate change and the low-carbon strategy 	<ul style="list-style-type: none"> Periodic consultation meetings 	<ul style="list-style-type: none"> Preliminary discussions on contract renewals with five IPPs 	<ul style="list-style-type: none"> Ongoing discussions with partners. Discussions addressed whether the renewal of contracts involve environmental assessments or impact, additional investment in equipment improvement projects, costs, tenure of use, the signing of pure capacity contracts, etc.
 Government Agencies / Competent Authorities	<ul style="list-style-type: none"> Stability and reliability of the power supply Accessibility and affordability of electricity Renewable and clean energy development Power plant renewal and decommissioning 	<ul style="list-style-type: none"> Official documents Submission of various work schedules Continuous communication on projects and participation in meetings as required by competent authorities 	<ul style="list-style-type: none"> Important motions of the monthly Board meeting were submitted to the competent authority in advance The minutes of monthly Board meetings were submitted to the competent authority 	<ul style="list-style-type: none"> Provided relevant information and attended review meetings in accordance with government regulations and requirements

Stakeholders	Main Concerns	Frequency and Method of Engagement	2021 Engagement Performance	Related Action
 <p>Elected Representatives</p>	<ul style="list-style-type: none"> Climate change and the low-carbon strategy Air quality Renewable and clean energy development Power plant renewal and decommissioning 	<ul style="list-style-type: none"> Attendance at committee meetings of the Legislative Yuan as a non-voting participant Coordination meetings and public hearings Provide relevant explanatory information on the corporate business Take the initiative to visit legislators 	<ul style="list-style-type: none"> Executives at the level of Vice President or above attended 60 sessions at the Legislative Yuan as non-voting participants Supervisors and staff at all levels attended coordination meetings and public hearings held by the Legislator's Research Office and provided information a total of 841 times throughout the year Executives at the level of Vice President or above had a total of 141 communication sessions with legislators throughout the year 	<ul style="list-style-type: none"> Arranged senior executive visits to elected representatives to explain important business Actively responded to elected representatives' queries and provided written information in due course Attended public hearings and coordination meetings to explain the implementation of the Company's business
 <p>Media</p>	<ul style="list-style-type: none"> Transforming into a power utility group Renewable and clean energy development Environmental impact management Stability and reliability of the power supply Air quality 	<ul style="list-style-type: none"> Press releases Printed media Public hearings / Explanatory meetings On-site visits / Commissioner visits Taipower's official website Market Observation Post System (MOPS) 	<ul style="list-style-type: none"> Published a total of 100 press releases and 35 instant explanations on issues related to air quality improvement, power supply and demand, renewable development, power development projects, environmental protection, and sudden major events to provide immediate external clarification or proactively release information to the media for dissemination 	<ul style="list-style-type: none"> Offered complete press information proactively for media coverage (on the implementation of renewable energy, power saving measures, preservation of cultural power assets, and recruitment of new personnel) regarding the company's important business strategies and external concerns. Demonstrated the company's specific actions in response to government policies and social expectations Implemented the spokesperson system, promptly responded to the public's concerns on livelihood issues, and publicized Taipower's important policies Immediately clarified any misunderstandings in response to external concerns or temporary emergencies and issued press releases and "instant explanations" when necessary to communicate with the public promptly Arranged media interviews on diverse issues
 <p>Non-Governmental Organizations</p>	<ul style="list-style-type: none"> Air quality Energy efficiency Power plant decommissioning and renewal 	<ul style="list-style-type: none"> Briefing sessions Proactive visits Participation in relevant forums and activities Taipower's official website Taipower publications 	<ul style="list-style-type: none"> Meetings according to project needs Publication of the Monthly Journal of Taipower Disclosed the latest corporate information on Taipower's official website 	<ul style="list-style-type: none"> Visited non-governmental organizations based on the project needs to gain insight into social feelings and public needs and harmonized the interaction of stakeholders. Published the Taipower Journal, targeting government agencies, business-related units, Taipower employees (including retirees), colleges and universities, etc.
 <p>Customers</p>	<ul style="list-style-type: none"> Information security and customer privacy Demand-side management and energy conservation 	<ul style="list-style-type: none"> Customer comment box Specialist visits Occasional newsletters 	<ul style="list-style-type: none"> The customer comment box received 5,492 letters in 2021 Conducted advocacy to promote the usage of high-efficiency electrical appliances and power conservation techniques. A total of 1,460 meetings were held in 2021, with about 170,000 participants Organized a series of power-saving activities over nine consecutive years The Power-Saving Service Teams visited 4,231 customers in 2021, with an estimated power saving potential of 99.92 GWh 	<ul style="list-style-type: none"> Conducted power conservation advocacy. Set the number of promotional sessions per year, and each branch office was responsible for implementation Advocated the usage of high-efficiency electrical appliances and power conservation techniques, to convey power-saving knowledge to users Organized a series of power-saving activities Power-Saving Service Teams visited customers. The number of customers to be visited is set annually, and each branch office is responsible for conducting an inventory of potential energy savings and promoting demand response measures in order to achieve benefits from visits
 <p>Residents / The General Public</p>	<ul style="list-style-type: none"> Accessibility and affordability of electricity Environmental impact management Corporate governance and sustainable development Transforming into a power utility group 	<ul style="list-style-type: none"> The Taipower Fan Page on Facebook Public information on the official website 	<ul style="list-style-type: none"> The Facebook fan page had more than 30 million views in 2021 Set up an "Information Disclosure Section" to provide information on corporate operations and tariffs, and established an independent section on sustainable development to deliver corporate performance information related to sustainable development Disclosed financial information and corporate governance status in the "Corporate Governance Section" 	<ul style="list-style-type: none"> The Taipower Fan Page on Facebook promoted topics such as electricity knowledge, power safety, power saving, and other electricity-related content for daily life, as well as information on the latest convenient services and activities

Material External Communication Policy

Media Communication

Taipower proactively releases complete press information packages of for media coverage that demonstrate the Company's specific actions in response to government policies and social expectations. For public concerns or temporary emergencies, such as air pollution issues, nuclear energy issues, regional power outages, and major emergencies Taipower issues press releases and real-time explanations for immediate clarification. In addition, Taipower actively assists in arranging media interviews to attract media coverage and enhance its corporate image.

Communication with Elected Representatives

Elected representatives are the communication front line of public concern, policy direction, and planning. Taipower has been actively responding to the requirements of legislators' political questioning and seeking policy planning support. Taipower attends various business-related issue commissions, public hearings, press conferences and explains policies and implementation practices to achieve bilateral communication. Taipower also establishes contact and meets with each elected representative to assist in handling business-related service cases and to establish mutual trust and communication. Through various means of engagement, Taipower gains understanding into the concerns of elected representatives and works out the best solutions to achieve win-win situations.

Communication with Customers and the General Public

Taipower actively maintains honest and transparent communication with customers and the general public. Through Taipower's various business areas and diversified mediums, the public can express relevant opinions in a timely and effective manner. Taipower also earnestly builds an image of positive corporate citizenship and conveys information on the Company's actions and performance in management, environment, and society by proactively communicating on issues in advance. The public can therefore engage in deeper interaction with Taipower and establish a sustainable social relationship.

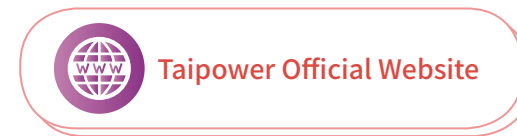
Participating in External Associations

The electricity industry is highly professional and its related technologies are evolving rapidly. Taipower enthusiastically participates in major technology and exchange organizations in the energy industry. In 2021, The Company engaged with 26 international organizations, 72 academic organizations, and 25 professional organizations for a total of 123 external organizations, including the World Association of Nuclear Operators (WANO), the Taiwan Business Council for Sustainable Development, the Industrial Safety and Health Association (ISHA) of the R.O.C., the Taiwan Wind Industry Association, the Taiwan Institute for Climate Change and Sustainable Energy, the Taiwan Electrical Contractors Association, and other international, academic, and professional organizations. The topics discussed included energy transformation, clean energy technology, sustainable governance, the energy economy, and occupational safety and health.

5.3 Customer Service and Management

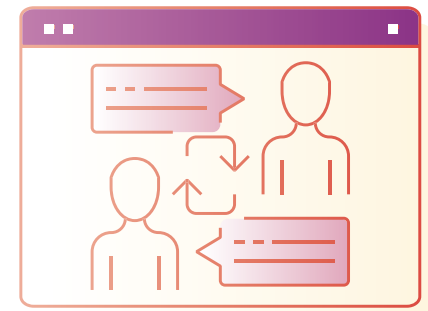
5.3.1 Diverse Channels for Engagement and Communication 103-2 103-3

Taipower places great emphasis on issues of concern to the general public. Through diverse channels, the Company maintains bilateral communication with its customers and improves service quality by following customer suggestions. In addition, Taipower facilitates customer inclusion by attempting to resolve all service hindrances caused by language, culture, and literacy-related issues. Taipower's customer services are now available in Mandarin Chinese, Taiwanese, Hakka, and English to cater to customers' power service needs in the language of their preference.



Taipower Official Website

In order to increase public awareness of the electric industry, Taipower has disclosed 32 items of information on its official website under six categories. These include Management, Power Generation Information, Power Supply and Demand, Customer Information, Environmental Information, and Engineering Information. Taipower has also added new sections for net-zero electricity emissions and 2021 COVID-19 relief to facilitate two-way communication with the public.





Taipower TV - YouTube Channel

Since its establishment on May 1, 2013, Taipower TV has accumulated more than 7.58 million views. In recent years, Taipower has been producing online videos for different target audiences. From planning, shooting, editing, post-production and shelving, to marketing, Taipower is able to produce its online videos without outsourcing. Through video series, such as "A-Liang Looking for Experts," "Primary School Power," and "One Minute to Understand the Key Point," Taipower is able to transform electricity knowledge that is considered rigid into amusing information that is easier to understand. The "Power Talk" series invites renowned experts and scholars from Taiwan to provide in-depth analysis of the power industry and energy trends. Topics covers energy transition, renewables, electric vehicles, and smart grids. This gives the public an in-depth understanding of power issues and strengthens online communication.



The Taipower Fan Page on Facebook

The Taipower Fan Page on Facebook currently has over 240,000 followers and has had more than 30 million views as of 2021. The themes of the posts include electricity knowledge, power saving, power safety, convenience measures, activities, etc. In addition, through this visual approach, Taipower hopes the public will recognize its efforts in stabilizing the power supply and reducing coal and emissions at the Taichung Thermal Power Plant as power consumption hit new highs in 2021. Taipower wishes to improve the effectiveness of its communications through social network sharing. The content of posts has been actively quoted by major media platforms.



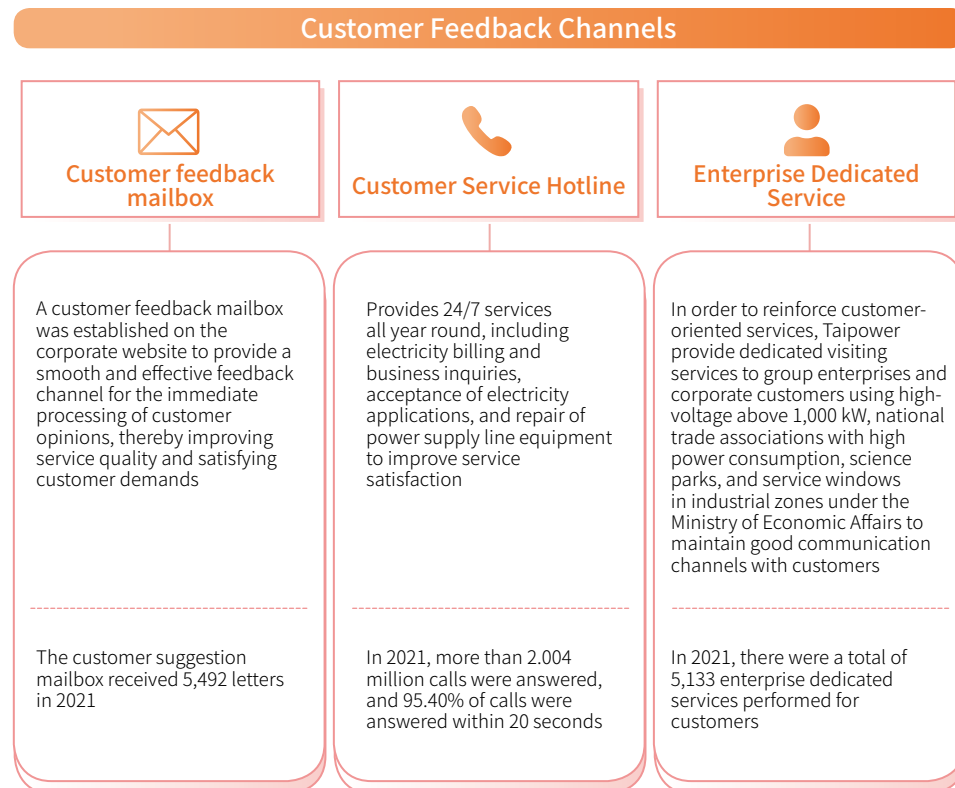
User Communication and Management

Through the Medium of District Service Offices

Taipower has established a closely-linked service network across Taiwan that offers over-the-counter applications for various power and consultation services. These offices are responsible for the construction and maintenance of power supply lines within their service areas and for accommodating customer needs with speedy and convenient responses. They are also responsible for the establishment of direct communication and the maintenance of good interactions with customers.

Online Feedback Channel

Taipower has established the 1911 customer service hotline, an online service counter, and the Taipower e-Counter app to meet various user service needs through multiple channels.



Customer Satisfaction

In 2021, Taipower conducted an opinion survey of its general, medium and large customers. The scope of the survey included quality of service, Taipower's corporate image, customer feedback, and overall customer satisfaction. In recent years, customer satisfaction has consistently been maintained at over 90%. The results indicate that the quality of Taipower's services is being recognized by its customers.



Note: 1. In 2020, the State-owned Enterprises Commission incorporated a weighting concept into its satisfaction scoring method. The conversion resulted in a decrease in scores when compared with 2019.
 2. In May 2021, two power outages occurred throughout Taiwan. The implementation of regional rotating emergency power restrictions caused inconvenience to customers and resulted in a decrease in satisfaction scores.

The result of the 2021 customer satisfaction survey was a score of 93, a significant decline in satisfaction with the stability of the power supply in the past year. It is assumed that this is principally the result of the power outages on May 13 and May 17 that caused rotating power interruptions in all regions of Taiwan. Electricity supply is critical to the national economy and security, and as such, Taipower has continuously worked to improve power supply and capacity by adding new power sources and enhancing maintenance. The Company has also actively promoted measures aimed at energy conservation and refined its demand response load management to suppress power consumption.

Every month, Taipower replies to the dissatisfied customers that have expressed concerns through the comment box. This entails reviews and improvements along with supervisor assistance in providing suggestions and disseminating information across units within Taipower. In the future, Taipower will continue to handle customer service-related businesses in accordance with the Ministry of Economic Affairs' Implementation Plan for Improving Service Efficiency, and will strengthen its communication with customers to make service delivery even better.

5.3.2 Guarding Information Security 103-2 103-3 418-1

Product Liability and Personal Information Protection

Taipower's various tariffs are set in accordance with relevant government laws and policies. The processing of customer billing information and electricity cut off due to overdue bills are therefore managed in compliance with the Personal Information Protection Act and the Electricity Act. Taipower also conducts annual reviews of all necessary fields in its personal information files and systems, and revises relevant business rules. As for the confidentiality of customer-related data, Taipower has formulated confidentiality mechanisms and operational methods that accommodate different targets. Each unit of The Company follows the operating regulations in handling information to ensure the security of customers' personal information over the course of business execution. Take branch offices as an example. In consideration of both legal requirements and the need for convenient services, customers must cooperate with their local branch office by providing identity verification and presenting documents when making inquiries or printing electricity consumption. This remains true whether business is conducted in person, by proxy and through a service counter, telephone (or fax), internet, or through another channel.

For critical databases, Taipower has established a database activity monitoring system. The system inspects the database and protects it through real-time monitoring and event analysis. Monthly reports of exception records are generated and sent to the maintenance department for review. In 2021, the results of the quarterly reviews were normal, and there were no violations of regulations due to the provision and use of products and services. Taipower will continue to require each branch office to properly manage customer information and conduct regular audits as well as reviews of relevant processes. In the medium and long term, Taipower will continue to optimize its customer-related application systems, work towards robust system cyber security protection, reduce paper-based documentation to lower the risk of accidental document leakage, and implement the management of protecting customer personal information.

Information Security Plan

"Information and communication infrastructure" is one of the areas of concern for Taipower's smart grid development. To enhance data quality, improve analysis and application, and ensure the security of information systems and program-controlled systems, Taipower has formulated a Cyber Security Policy and set up a Cyber Security Steering Committee for management.

- Information assets and critical information infrastructures shall be regularly inventoried, classified, and graded, and risk assessments shall be conducted for critical information assets and critical information infrastructures so as appropriate protective measures shall be implemented accordingly.
- The collection, processing, and utilization of personal information shall comply with the provisions of the "Personal Information Protection Act."
- Unit supervisors shall pay close attention to the identification and control of confidential and sensitive information. They shall be responsible for supervising, executing, and auditing the compliance of cyber security policies, relevant laws and regulations, and operational specifications. They shall also ensure their implementation in the routine operations of each unit and employees' daily work.

- It is necessary to have complete notification and contingency measures for cyber security incidents and to conduct regular information security drills to ensure continuous business operation.
- All employees shall be fully aware of the purpose of the cyber security policy and their responsibilities under it.
- The effectiveness of the information security management system shall be reviewed regularly.
- The cyber security policy and related operational specifications shall be revised appropriately according to business changes, information technology developments, and risk assessment results.

Information Management Performance Project and Achievement

Management Aspect	Management Performance Project	2021 Achievement
 Information Security	<ul style="list-style-type: none"> • Information security policy documents approved and released by management shall be communicated to all employees • Assets shall be classified • Vulnerability assessment will be conducted on host computers quarterly and improvement records will be tracked • The use of information and communication products from Mainland China is prohibited to reduce information security risks • Vulnerabilities shall be patched and updated regularly • The core information and communication system shall conduct a business continuity drill once a year • Social engineering drills shall be conducted twice a year • All core information and communication systems shall undergo a penetration test once a year • In the event of an information security incident, the "Cyber Security Incident Notification and Response Management Procedures" shall be followed 	<p>After review, the results for 2021 were normal, and there were no violations of laws or regulations</p>
 Customer Privacy Information	<ul style="list-style-type: none"> • The director and deputy director of the unit or interdepartmental organization shall be designated as responsible for advancing information security matters, such as examining whether the handling of operational records is consistent with the relevant regulations of the Establishment Guidelines for the Security and Maintenance of the Personal Information Files Team • Personal information shall be inventoried in accordance with the Security and Maintenance Plan for the Personal Information Files and Personal Information Processing Methods after Business Termination • The content of cyber security requirements in the outsourcing contract shall include the Personal Information Protection Act, a definition of the rights and responsibilities of both parties, the right to audit manufacturers, security controls, and other legal requirements • Personnel with access to confidential or sensitive information shall be decentralized and rotated • The identification codes, access codes and permissions of transferred, departed or retired personnel shall be canceled immediately • Confidential information shall be handled in physical isolation 	<p>After review, the results for 2021 were normal, and there was no violations of laws or regulations</p>