

# Taipower and Sustainability



# **F** Development Vision

Taipower aspires to become an outstanding and trustworthy world-class power utility group. The Company has implemented sustainable governance, and continues to refine its environmental, social, and governance policies to increase its sustainability and resilience. Following the latest amendments to the Electricity Act, Taipower committed to overcoming the challenges of transformational change within the power industry. It began developing supportive measures to meet these transformational needs and planning to transform into a power generation and transmission, distribution and electricity retailing utility. It also moved towards adopting a parent-subsidiary control and group financial management model. Now, the Company is actively promoting energy transition while remaining accountable for providing a stable power supply. Through the process of its corporate transformation, Taipower will strengthen communication and cooperation with stakeholders. The Company will also internalize suggestions and feedback about operations from those stakeholders while gradually embracing the next generation of power industry trends.

# **F** Performance Highlights

- Won the "Taiwan Corporate Sustainability Report Platinum Award," the "Taiwan Corporate Sustainability Excellence Award," and the "Innovation Growth Leadership Award" at the 2022 Taiwan Corporate Sustainability Awards (TCSA)
- In 2022, the Phase I Offshore Wind Power Project was honored with the "Silver Award" in the "SDG7 Affordable and Clean Energy "category at the Asia-Pacific Forum & Exposition for Sustainability and Taiwan Sustainability Action Awards
- Won the "Human Capital Investment Award" and the "Green Leadership Award" at the 2022 Asia Responsible Enterprise Awards (AREA)
- In 2022, the 161kV switch yard Construction Projects at the Datan and Linkou Power Plants were honored with the "Special Excellence Award" in the Facilities Category at the Executive Yuan's Public Construction Commission's 22nd Public Construction Golden Quality Awards





### The 2022 Asia Responsible Enterprise Awards (AREA)

Won awards for the fifth consecutive year - the Taipower baseball team won the "Investment in People Award." and our net-zero emissions strategy won the "Green Leadership Award"

#### The 2022 Asia-Pacific Forum & Exposition for Sustainability and Taiwan Sustainability Action Awards

The Phase I Offshore Wind Power Project was honored with the "Silver Award" in the "SDG7 Affordable and Clean Energy" category

### The 2022 Taiwan Corporate Sustainability Awards (TCSA)

Won the "Taiwan Corporate Sustainability Report Platinum Award" for the fifth consecutive year, the "Taiwan Top 100 Sustainable Enterprises Award," and the "Innovation Growth Leadership Award"

#### 2022 Taiwan's World Smart Energy Week

The "Changbin Photovoltaic Field" was awarded the "Excellent Ground-mounted System Award" at the 9th "Ministry of Economic Affairs Energy Bureau Excellent Solar Photovoltaic System Awards"

### 22nd Golden Quality Award for Public Construction Projects from the Executive Yuan's Public We were honored with four awards at the "2022 Asian Power Awards": **Construction Commission**

The Taipower Integrated Execution Department's turnkey project for the addition of 161kV Switchvards at the Datan and Linkou Power Plants. won the "Facility Category Excellence Award"

### 2022 Excellence in Water Conservation Unit Selection by the Water Resources Agency, Ministry of Economic Affairs

Won the "Outstanding Award in the Government Group" for recycling a total of 11.142 metric tons of water between January 2020 and September 2022. This accounted for approximately 7.2% of the Company's total water consumption



#### S&P Global Ratings AA+

On May 4, 2022, S&P Global Ratings upgraded our company's long-term issuer credit rating from "AA" to "AA+"

### 2022 Happy Enterprise by 1111 Job Bank

The Company was honored with the "Gold Award" in the Manufacturing category at the 1111 Job Bank's "2022 Happy Enterprise" awards. Taipower was the only stateowned enterprise in the manufacturing industry to receive this prestigious recognition



#### 2022 Annual Subsea Technology Award

The Company's "Offshore Wind Power Phase I Project" was recognized with an award from the Republic of China Institute of Marine and Underwater Technology

#### 2022 Taiwan Innovative Technology Expo (TIE)

At the "2022 Taiwan Innovative Technology Expo (TIE)," jointly organized by the Ministry of Economic Affairs and the Council of Agriculture, the Company won a gold medal for the "Real-time Lowest Frequency Value Estimation System for Power Systems." Taipower received a total of five patent awards, including one gold and three bronze medals

#### 2022 Asian Power Awards

- The Research and Development Department's Electric Vehicle V2G Technology Demonstration Project won two gold medals for the Annual Battery Storage Project and the Annual Reserve Power Project
- The Transmission and Distribution Department's Taiwan Penghu Submarine Cable Construction Project won a silver medal for the Annual Transmission and Distribution Engineering Project. It also won the Taiwan Award of Annual Sustainable Development (note: the Taiwan Award is awarded based on country)
- Department of Nuclear and Fossil Power Projects won the bronze medal for the Annual Gas Cogeneration Power Project for its Taichung Power Plant New Gas Turbine Unit Project

#### 2022 Taiwan Design BEST 100 by Shopping Design Magazine

Taipower's cultural and creative project, the "Mud from Sun Moon Lake" received the "Experimental New Classic" award at the 2022 Taiwan Design BEST 100 by Shopping Design Magazine. The award recognized the innovative concept behind the Tidal Power POP-UP Store



### The 2022 Sports Activist Awards

The Company was presented with three primary awards by the Vice President of Taiwan. These included the Sponsor Category Gold Award, the Sponsor Category Long-term Sponsor Award, and Promotion Category Gold Award

#### The Ministry of Culture's "15th Wenxin Award"

The Company has received the "Wenxin Award" for three consecutive years in recognition of its efforts in Cultural Heritage Preservation, Cultural Artistic Performance, and Promotion. As a state-owned enterprise, we have allocated a budget specifically for cultural heritage projects and established dedicated units to recruit professional human resources

### The Hsinchu City Golden Glass Awards for Glass Art and Design **Application Creative Competition**

Taipower's cultural and creative project titled "the Retired Electric Meter Glass Recycling Program for the 54th Taipower Skills Competition Lecture and Commemorative Badge." received an award in the Design Application category

#### 2022 Taiwan Creative Expo CET BEST AWARD

The award was presented for the Taipower Heating Pad which was made from recycled transformer boxes

#### Ministry of Culture's Public Art Awards

The project titled, "Taipower's New Taipei Jinguashi Public Art Installation Phase I Subproject A and Phase II Public Participation Project II" was honored with the "Special Jury Award"

### 2022 Taipei City Workplace Gender Equality Bronze Certification

In recognition of Taipower's efforts in promoting gender equality in the workplace through equal salary treatment, work-life balance initiatives, friendly maternity measures, and gender-friendly workplace safety measures



Taipower and Sustainability

**Founded** 

Coverage

Capital

Headquarter

**Shareholding** 

**Total assets** 

**Number of** 

employees

**Operating revenue** 

Number of users

**Installed capacity** 

May 1, 1946

Taipei City

NT\$330 billion

2,325.5 billion

661.9 billion

14.93 million

250,700 GWh

53.74 GW in the Taipower system

(34.34 GW are Taipower-owned)

28,079

Taiwan, Penghu, Kinmen and Matsu areas

96.92% government-owned; 3.08% privately owned

As of 2022/12/31

# 1.1 Taipower Business Overview and Strategy

# 1.1.1 Taipower Profile

2-1 2-6

Established on May 1, 1946, Taipower is a state-owned power industry group that operates in the generation, transmission, distribution, and the sale of electricity. According to the regulations of the Electricity Act, Taipower is responsible for providing a stable electricity supply. Revenue from electricity sales accounted for 97.5% of the Company's total revenue in 2022. As of 2022, the installed capacity in the Taipower System (including Independent Power Producers) was 53.74 GW, consisting mainly of thermal power generation with hydroelectricity and renewable energy. In terms of transmission and distribution, Taipower's system has 618 substations, and the total length of power transmission lines reached 18,032.1 circuit kilometers (Including overhead power lines and underground cables) while its total length of distribution lines reached 410,071 circuit kilometers in 2022.

In response to the recent global shift toward sustainability and the development of future electricity markets, Taipower has undergone an organizational transformation. In January 2016, the Company established four business divisions: the Power Generation Division, the Nuclear Power Division, the Transmission System Division, and the Distribution and Service Division. Following the establishment of these divisions, the headquarters and business divisions adopt a combination of centralized policymaking and decentralized operational management, in an effort to transform from a government agency into a highly efficient enterprise. In the future, Taipower will continue to abide by the requirements of the Electricity Act and transform itself into a holding company with subsidiaries, which aim to promote market competition, enhance business operation efficiency, and promote corporate sustainability. This will allow Taipower to become a prestigious and world-class power utility group that provides its customers with services of the highest quality.

Note: Circuit Kilometers = Number of Circuits \* Circuit Length (Kilometers)

### Core Values ▶▶

To successfully operate in the power industry, Taipower must contend with the trilemma of energy security, environmental sustainability, and affordable pricing. In response to global climate change, domestic energy transition, and competition resulting from the liberalization of the electricity market, Taipower revised its mission, vision, and core values in 2015. The changes are expected to guide the Company's business direction, change the mindsets of its employees, and allow it to move toward becoming a superior and sustainable power business group.

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	To

Our	Mission

To supply stable electricity for the diversified development of society in an environmentally friendly manner and at a reasonable cost.



### **Our Vision**

To transform into a prestigious, trustworthy and world-class power utility group.



### **Core Values**

Integrity, Care, Service, and Growth.



### **Management Strategy** ▶ ▶

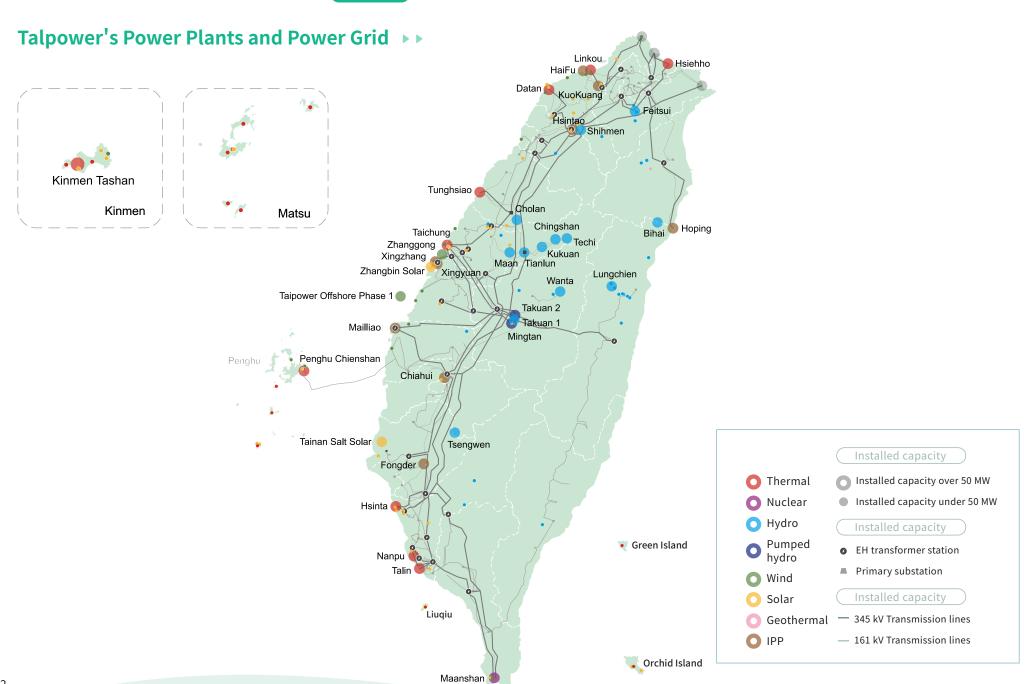
Taipower is responsible for providing stable electricity in a manner that is environmentally friendly and cost-effective, and for providing the fundamental conditions required for the development of public livelihoods and economic growth for a diverse society.

Each year, Taipower conducts reviews to ensure compliance with the latest amendments to the Electricity Act. The Company also considers a range of other factors such as green energy, carbon reduction, energy conservation, and the stability of the power supply when formulating its management policies. After reviewing its current business status, it analyzes and summarizes various essential background factors that affect the operation and formulates ten "overall strategies" to set its business direction in the next five years, and to reinforce scenario assumptions for the sixth to tenth years.

In order to promote and implement these strategies, specific action plans are discussed after the "overall strategy" is formulated by the CEO and the Vice President of each business unit and system. Subsequently, the Company sets corporate goals that are classified according to key performance indicators. The implementation status of each goal is then incorporated into the Company's target and review systems for management and control. Under the framework of the Plan-Do-Check-Act (PDCA) corporate management cycle, continuous adjustments and improvements are made to enhance the growth of Taipower's sustainable operations.







### 1.1.2 Operational Performance

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# Sustainability Operation Goals and Financial Performance ▶▶

In recent years, Taipower has been actively strengthening its business constitution, implementing goal setting and performance management appraisals, and annually reviewing indicator items to meet its overall operating objectives. In 2022, 117 key performance indicators were set, and a total of 109 were completed. In 2023, 87 key performance indicators have been set as Taipower continuously improves.

In terms of financial performance, Taipower will maintain reasonable electricity rates and diversified management practices to achieve the multiple goals of a stable power supply, energy conservation, carbon reduction, and financial stability as it responds to changes in power generation and sales structures, fuel price volatility, and uncertainty in electricity rate adjustments. Taipower's financial performance from 2020 to 2022 was as follows.

### Financial Performance from 2020 to 2022 ▶▶

Unit: NT\$ millions

Year	Total assets	Operating revenue	Pre-tax profit (loss)	Equity
2020	2,145,316	604,648	23,855	326,296
2021	2,205,847	620,970	22,348	350,932
2022	2,325,501	661,872	(227,047)	127,141

Note: 1. Taipower is a state-owned enterprise and, according to law, its final accounts are subject to review and certification by the National Audit Office. At the time of publication, the financial performance for 2022 has not been reviewed and certified by the Office and is thus reported according to the numbers resulting from audits by certified public accountants.

### **Long-term financial planning** ▶▶

### Seeking government capital increases or subsidies

Taipower is seeking to enhance the Company's net worth with sufficient internal funds so that its budget can be increased. Additionally, the Company is striving to secure sufficient government budget allocation so that investment can be made in essential construction projects. An extraordinary shareholders' meeting held on December 16, 2022, has already approved the cash capital increase and the issuance of new shares in 2023. The board of directors decided on March 17, 2023, to carry out a cash capital increase and issue new shares worth NT\$149.9 billion, with the record date set as March 31, 2023.

### **Diversify funding channels to reduce funding costs**

The Company is working to increase its flexibility in utilizing various funding channels to achieve low-cost sources of capital and raise necessary funds in a timely manner. It is also working to seize opportunities to seek government assistance in providing project financing and infusions of funds, expanding funding sources, and reducing the funding pressure on Taipower.



The numbers for 2021 have been reviewed and finalized. Following the completion of this process, there have been some changes to the disclosures made in the 2021 Sustainability Report.

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Sustainability

### **Electricity Tariff Review Mechanisms** >>

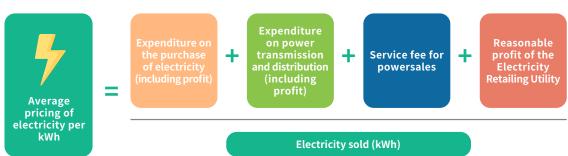
In accordance with Article 49 of the Electricity Act, the competent authority lays out calculation formulas and adjustment mechanisms for the electricity tariff. The current formulas were announced on November 6, 2017. According to the regulations, the electricity tariff is reviewed every six months. During the review process, Taipower may devise review plans for the electricity tariff, and adjust the tariff after obtaining approval from the Electricity Tariff Examination Council. The process allows electricity prices to immediately reflect international fuel price volatility. In principle, increases and decreases cannot exceed 3% in each adjustment. However, when the cost of the electricity supply continues to rise or fall sharply, the Electricity Tariff Examination Council may adjust the electricity tariffs based on the status of the electricity tariff stability reserve.

In March 2022, the Ministry of Economic Affairs held its first electricity tariff review meeting. In consideration of the need to closely monitor events surrounding the Russo-Ukrainian War, the decision on electricity price adjustment was temporarily postponed. Furthermore, the Ministry of Economic Affairs convened an interim meeting in June to discuss the electricity tariff rates. Due to the persistently high fuel prices and the need to have costs reflected in a timely manner to support the stability of the national power supply, it was decided to increase electricity prices for large electricity consumers. However, in an effort to stabilize living costs, electricity prices for residential consumers (up to 1,000 kWh), small shops, low-voltage users, six categories of high-voltage industrial users, and schools below the high school level will not be adjusted. The overall average increase in electricity prices was 8.4%, rising from 2.6253 NTD/kWh.

Following the aforementioned electricity price adjustment, the Ministry of Economic Affairs held its second electricity tariff review meeting in September. Although Taipower still faced pressures from fuel costs, significant domestic inflationary pressures and the price increase in July resulted in a decision to not to make any adjustments to the electricity prices during this review.

The portion of the electricity price that cannot reflect the costs will be advocated to the electricity price rate review committee for compensation from the electricity price stability reserve, and continuous efforts will be made to ensure a reasonable reflection of the electricity price.

The Electricity Retailing Utility Enterprises' formula for determining the electricity tariff is described below:



The Average Price: E	s of Residential, In lectricityfrom 202		nmercial
Category of Power Consumption	2020	2021	2022
Residential	2.5596	2.5110	2.5571
Industrial	2.4461	2.4592	2.6309
Commercial	3.1787	3.1861	3.2447
Other	2.6586	2.6353	2.8596

Note: Other refers to electricity consumption that occurs outside the three aforementioned items. It includes street lights, schools, government institutions, and other non-business electricity consumption

### Affordable Clean Energy >>

Taipower upholds its responsibility and mission to provide stable and affordable electricity services through continuous technological innovation and energy transformation. It is committed to reducing energy costs and environmental impact. Taiwan has both electricity prices that rank fourth lowest globally and has also maintained long-term stability in operations while ensuring high quality and reliability. Taipower actively develops emerging energy industries such as solar and wind power generation, promotes the transition to cleaner energy sources to protect the environment and improve people's quality of life. Additionally, Taipower actively promotes the development of green energy to achieve energy transformation and sustainable development goals.

A comparison of average electricity prices across countries in 2021 based on the latest statistical data released by the International Energy Agency (IEA) and Enerdata in 2022, along with electricity price data from neighboring countries in Asia (Note 1).

	Rank		NT\$/kWh
P R	1	Malaysia	1.4852
eside	2	China*	2.2138
ser	3	Mexico	2.3539
<u>₹</u> .	4	Taiwan	2.6365
	5	Turkey	2.7064
Electrici	6	South Korea	3.0389
l <del>2</del>	7	Hungary	3.3091
<u> </u>	8	Canada	3.4875
\$	9	Thailand*	3.5028
	10	USA	3.8457

	Rank	Country	NT\$/kWh	
무를	1	USA	2.0355	
ice it	2	Malaysia	2.2978	
ndustri <sup>o</sup> rices	3	Finland	2.3417	
<u>a</u>	4	Taiwan	2.5822	
ᇤ	5	Canada	2.5950	
Electricity	6	Hungary	2.6334	
T <sub>C</sub>	7	South Korea	2.6783	
Į₹	8	Turkey	2.7048	
	9	China*	2.7182	
	10	Norway	2.7408	

#### Note:

- The figures listed were originally denominated in US dollars, and have been converted at an exchange rate of 1 US dollar = NT\$28.022 (the average exchange rate for 2021).
- 2. "\*" indicates data for 2020.
- The prices mentioned above are inclusive of taxes.

Taipower and
Sustainability

### **Diversified Management and Strategies >>**

In order to fulfill its responsibility for ensuring a stable power supply, Taipower needs to assess opportunities in emerging energy-related industries and follow global trends in energy transformation and net-zero carbon emissions. Drawing from the example of international power companies, Taipower has been actively promoting initiatives such as renewable energy development and smart energy management. Through company-wide meetings, Taipower is integrating internal and external advantages and resources to foster consensus on diversification strategies. It collects and evaluates information on the feasibility of diverse potential projects and regularly reviews its diversification strategies and short-, medium-, and long-term profit goals, and incorporates them into performance indicators for the responsible centers. Progress is tracked and controlled on a quarterly basis to ensure the Company's competitive strength and financial sustainability.

While adhering to its expansion strategy of "extending the core business in the electricity industry, enhancing asset revitalization, and venturing into derivative businesses," Taipower constantly faces challenges such as energy liberalization and organizational transformation. In addition to pursuing its goal of providing a stable power supply, Taipower is actively exploring opportunities for future business development. It aims not only for profitability but also to implement corporate social responsibility, support government-led industrial development, and ensure environmental sustainability. These aspects are evaluated through multiple dimensions and Taipower seeks to create a win-win situations for society and the Company through the integration of external resources in its pursuit of new business ventures.

At present, Taipower has successfully initiated intrapreneurship in areas such as power operations, nuclear techniques, maintenance, research and training, communications, real estate, cultural innovation, etc. It has also moved forward with reinvestment businesses such as coal and mine development, cogeneration, wind power training. The Company generated NT\$8.31 billion in income from these diversified activities in 2022. In view of the significant changes in the internal and external business environment, and to achieve national energy policy goals and ensure the sustainable development of the Company, Taipower will continue to develop new businesses based on four key aspects: government policies, operational strategies, financial stability, and corporate social responsibility. It will assess various investment opportunities in new energy or alternative fuel sources. The goal is to integrate its existing strengths with external resources and actively explore energy-related businesses in a more flexible and proactive manner.

# The real estate revitalization achievements of Taipower's diversified business operations in 2022

Due to changes in power automation, transportation, and other economic factors, some of Taipower's real estate properties are no longer required for electricity-related purposes. To address this, Taipower established a cross-functional "Land Revitalization Project Team" led by the Company's General Manager. The team consists of representatives from various units such as New Business Development, Finance, Accounting, Construction, Power Supply, Transmission and Distribution Engineering, and Business Operations. The team conducts asset revitalization initiatives and invites relevant unit supervisors or executives to participate in meetings as needed. To enhance the effectiveness of asset revitalization, Taipower may invite real estate professionals from the government, industry, and academia to serve as advisory committee members and hold consultation meetings with the Chairman to gather recommendations.

The main tasks of the Land Revitalization Project Team include reviewing land planning and utilization cases, continuously promoting, supervising, and evaluating revitalization plans and investment attraction efforts. Currently, the focuses are on multi-purpose land use for substations in metropolitan areas, participation in joint ventures or urban renewal for idle land, and promoting land revitalization through bidding and setting land use rights for large areas, thereby increasing the Company's income. In 2022, the team conducted six project team meetings, including working group sessions.

Diversified Busi	ness Income in The Pa	ast Three Years
2020	2021	2022
1.6 billion	3.1 billion	8.3 billion

Note: The significant growth in diversified income for the year 2022 is mainly attributed to the impact of a substantial increase in international coal prices (an average increase of 189%) on the investment in coal mining development. The total annual income for the year was NT\$7.1 billion, representing an increase of NT\$5.4 billion compared to the previous year's income of NT\$1.7 billion.



# 1.2 Promoting Corporate Transformation

# **1.2.1 Transformation Planning**

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### **Core Transformation Concept** >>

The amendment of the Electricity Act was promulgated by presidential order on January 26, 2017. According to Article 6 of the Act, Taipower is required to undergo a transformation into a holding company by January 2023 and to establish separate power generation, transmission, distribution and sale subsidiaries. However, in consideration of developments in the electricity market, the electricity regulatory authority may request that the Executive Yuan postpone the implementation date. The first extension may be for up to 2 years, and the second extension may be for up to 1 year (thus, the longest extension would be until January 2026). Taking into account Taipower's responsibilities for ensuring a stable power supply and energy transition, as well as achieving net-zero emission transformation, and considering that there are still several issues related to the transformation to be studied and addressed, the Executive Yuan has approved the extension of the Company's transformation period until January 1, 2025, starting from April 1, 2022.

The transformation of Taipower from an integrated power company to a power business group is the first of its kind for a state-owned company. It is also an organizational transformation that is unprecedented in scale. Taipower has adopted "Strengthening the Foundation" and "Seeking Development" as its two core philosophies as it transforms into a power holding group. The Company is committed to continuing to provide a stable electricity supply, to maintaining positive competition in the market and to maximizing benefits for the Group.

### **Strengthening the Foundation** ✓

As a state-owned power utility group, Taipower plays an important role in providing a stable power supply, air pollution reduction, energy transformation, net zero emissions, and the electric industry development components of the national policy objectives. As subsidiaries of the Taipower Group, the Power Generation Company and the Transmission, Distribution and Retail (TD&R) Company will strive to fulfill their statutory requirements with respect to the scopes of their businesses. The holding company will play a strategic coordinating role and integrate its subsidiaries to accomplish the missions of the Taipower Group.

### **Seeking Development** ✓

The Electricity Act has fully opened up the range of choices for renewable power, and the electricity market may also be further opened. In the face of the increasing number of private operators joining the electricity market, Taipower Group must not only consolidate its existing business but also explore new growth areas by combining external resources with greater efficiency and flexibility to facilitate the Group's sustainable development.

In order to integrate the group's strengths across subsidiaries and create operational synergy, the parent company will be designed to perform the functions of group policy making, strategic coordination, and resource integration. Taipower plans to control its subsidiaries through a "strategic control" model that takes into account both the group's overall efficiency and business flexibility. In addition, it will establish an effective governance structure and system through the appointment of directors and supervisors, a strategic target system, personnel organization, risk management, budgeting and accounting, and internal auditing of subsidiaries.

# The Transformation of the Professional Division of Labor



As a parent holding company, Taipower will hold 100% of all shares in the two subsidiaries and assign them different tasks based on the nature of their operations:

### **The Parent Holding Company**

The Company is not required to hold an electricity license. However, after the Company is divided, both the parent and subsidiary companies will remain state-owned enterprises. They must use their collective strength to support the national energy policies and fulfill the requirement of ensuring a stable power supply. The parent company has to play the role of coordinator and allocator of resources within the group, as well as to serve as a window of correspondence and reporting to higher authorities. In addition, if nuclear power plants are decommissioned as scheduled by May 2025, Taipower will follow the model of Tokyo Electric Power Company Holdings by retaining the nuclear power businesses in the parent company along with responsibility for nuclear power decommissioning and nuclear waste disposal.

### **The Generation Company**

The generation subsidiary will retain the electricity generation industry licenses and shall become a non-public utility. It will be responsible for the planning, design, construction, operation and maintenance of the power generation and power sales businesses of the Group. It must closely follow trends in the industry, enhance its competitiveness, strengthen its core technologies, and actively plan electricity sales models that maintain its leading position in the power generation market.

### The Transmission, Distribution and Retail Company (TD&R Co.)

The transmission, distribution and retail subsidiary will retain the transmission, distribution and public utility licenses. It will remain a public utility and operate in the electricity transmission, distribution, and retailing industries. The electricity transmission and distribution department will continue to bear responsibility for the planning, design, construction, operation and maintenance of the nationwide transmission and distribution networks. It must pay close attention to costs and control operational and maintenance expenses to generate a steady stream of income. The electricity transmission and distribution division should also actively construct smart grids to meet energy transformation goals. The electricity retailing utility division will handle the electricity purchase and sale business according to the needs of retail utility customers and will assume the legal responsibility for prepartion for the possible further opening of the retail market, Taipower has gradually improved customer management and services and enhanced the added value of its business through innovative applications that will meet future challenges.

# 1.2.2 The Current Status of Transformation in Taipower

Regarding the transformation of Taipower, in addition to seeking external experience through outsourced research projects and benchmarking with other companies, a "Company Transformation Promotion Meeting" has been established. The meeting is held by the Chairman and has various preparatory groups to actively plan and prepare for organizational, financial, and operational considerations through internal discussions within the Company. The meeting's achievements in 2022 include: Developing an organizational framework for 1 parent company and 2 subsidiaries, as well as the processing of regulations on the division of responsibilities within the group, the development of a separate financial accounting system along with the progress on formulating principles for the allocation of assets and liabilities among the subsidiaries, and preparation and planning for the conduct of an inventory of operational interfaces for the subsidiaries after the transformation has been conducted. The aim is for the group to balance business operational flexibility and group synergy while ensuring the maintaining of the stable power supply and energy transformation.

### Progress and Achievements in 2022 ▶▶

The Electricity Act was amended on January 26, 2017, with the aim of establishing a market that facilitates diverse supply, fair usage, and freedom of choice. The purpose of the amendment is to promote the development of renewable energy, reduce reliance on coal and increase the use of natural gas, and achieve the national energy transformation goal of a non-nuclear homeland by 2025.

The amendment to the Electricity Act has had a profound impact on the market, posing significant challenges to Taipower's operations in the face of market structural changes. The Company has subsequently been active in taking measures to adapt, prepare, and plan.

# 1 Adapting to the liberalized electricity market and Taipower's support for new business opportunities



After the amendment, customers were granted the right to choose green electricity, in addition to resale options. Renewable energy generation companies were allowed to apply for establishment and to sell green electricity to customers through wholesale or direct supply arrangements. The electricity grid was designated as a common carrier to ensure fair access to the grid for the public.

To accommodate the opening of the green electricity market, Taipower has actively taken related measures, including assisting the electricity regulatory authority in conducting the first-ever review of transmission and distribution fees, establishing the direct supply of green electricity services, and completing separate accounting statements. To ensure grid neutrality, Taipower plans to achieve corporate separation by 2023-2025.

Furthermore, according to Article 11 of the Electricity Act, an open and transparent electricity trading platform should be established after the division of generation and distribution networks. Taipower established an "Electricity Trading Platform" in July 2021, which was officially launched in November of the same year. As of the end of 2022, a total of 35 companies with a capacity of 320MW have participated on the platform.

With various supportive measures and incentives in place, the green electricity trading market has been active since its launch in May 2020, with a total annual trading volume of 1.12 billion kWh in 2022. Additionally, multiple private renewable energy generation companies and renewable energy retailers have entered the electricity market (as of January 2023, there are 4 hydro, 64 solar, and 22 wind power companies, along with 36 renewable energy retailers). Through the introduction of green electricity and market mechanisms for ancillary services, it is expected that the electricity market will attract more participants and promote a diverse power supply environment.

# 2 Balancing energy transition and a stable power supply, Taipower's new statutory responsibilities



To ensure the stable operation of the market and achieve the government's energy transition goals, Taipower has taken on the responsibility for both public electricity supply and additional statutory requirements outlined in the amendment. These include power decarbonization control and reserve capacity for the power supply. Taipower is required to submit plans and annual reports on "power decarbonization coefficients" to the electricity regulatory authority to ensure that the power generation structure is moving towards low-carbon, sustainable development. Taipower will gradually align the power structure with the government's energy transition goals of "increasing gas, reducing coal, developing green energy, and creating a non-nuclear homeland" by combining various green energy incentives. To maintain the stability of the market after liberalization and to protect the rights and interests of electricity consumers, a reliability review committee has been established to determine appropriate reserve capacity rates (currently set at 15%) and to require electricity sellers (mainly public electricity suppliers and some green electricity suppliers) to assume responsibility for providing reserve capacity. Public electricity suppliers are ultimately responsible for power supply, and Taipower must submit annual plans and reports on reserve power capacity to ensure long-term power supply stability.

To further protect the rights and interests of electricity consumers, the amendment designated a central authority to oversee and regulate the electricity market. It also established procedures for electricity pricing and an Electricity Tariff Review Committee to review various fees and reasonable electricity prices for transmission, distribution, and public electricity supply. Through the establishment of a stable electricity pricing mechanism, fluctuations in electricity prices are minimized.

As the market gradually opens up and diversifies, the electricity sector is being supervised and managed through the implementation of statutory obligations such as reserve power capacity, an electricity regulatory authority, and review committees and related regulatory mechanisms, thereby ensuring the healthy development of the power sector.

# 1.3 Sustainable Governance

# 1.3.1 The Sustainable Development Commission

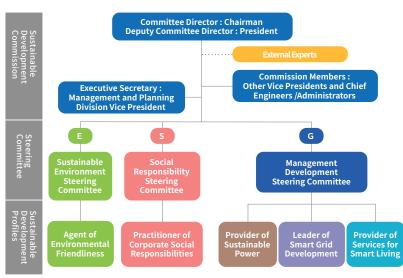
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# Organizational Structure of the Sustainable Development Commission (SDC) ▶ ▶

Taipower set up a Sustainable Development Commission (SDC), with the chairman of the Company's board of directors as the SDC's chairman, the Company's president as the SDC's deputy chairman, and vice presidents and the professional chief engineers/administrators as committee members. The SDC has three subordinate steering committees: the Management Development Steering Committee, the Sustainable Environment Steering Committee, and the Social Responsibility Steering Committee.

The managerial departments also have a Risk Management Committee, which has established risk management implementation plans. These plans include company-level risks, unit-level risks, audit mechanisms, educational training, and other management mechanisms. They are integrated into the internal control design and the execution of various operations. An annual project report is submitted to the Board of Directors to clarify implementation status. The roles and responsibilities of the Taipower Board of Directors and the Managerial Department are defined in the Board of Directors and Managerial Department Responsibilities Allocation Table and other relevant regulations.

### Structure of the Sustainable Development Commission



### **Key Tasks of the SDC** ▶ ▶

### **Management Development Steering Committee**

The committee is currently focused on planning the management direction and executing its transformation. Management direction is set by establishing a vision, management structures and by implementing business plans. In terms of company structure, plans have been implemented for energy transformation, organizational transformation, digital transformation, and diversification management.

### **Sustainable Environment Steering Committee**

The committee steers Taipower's green corporate image and promotes low-carbon environmental development in order to fulfill the Company's environmentally-friendly corporate mission. Taipower is committed to providing green power and building a green corporate image through environmental policy formulation, environmental goal planning, and environmentally-friendly actions.

### **Social Responsibility Steering Committee**

The committee works to strengthen Taipower's corporate humanism and social welfare. It implements the Company's people-oriented business philosophy and corporate citizenship actions. Through cultural and employee assistance activities, Taipower demonstrates its commitment to social responsibility. The Company is committed to expanding its social involvement and proactively reaching out to the public.

### **Operating Mechanisms and Achievements of the SDC**

Through its 3 steering committees, the SDC is able to track the results of Taipower's progress on its short, medium and long-term goals. The three committees focus on management development, environmental sustainability, and social responsibility. They analyze the changes in the external environment and policy. The results are used as references for the planning of Taipower's long-term sustainable development strategies and for identifying the Company's materiality topics.

Taipower promotes sustainability issues mainly through the three steering committees mentioned above. For emerging sustainability risks and issues, the Company holds ad hoc meetings to allow for discussion across committees. For example, as the topic of carbon neutrality has come to international prominence, carbon management and disclosure, and climate change risk response have become emerging issues.

# Role of the Highest Governance Body in Overseeing the Management of Impacts >>

# Actual Performance of the SDC and its Steering Committee in 2022

Name of Meeting	Responsibilities	Actual Performance in 2022
Sustainable Development Commission	Planning the Company's long-term sustainable development, establishing material topics and approving the Company's Sustainable Development Blueprint	Convened 1 meeting
Steering Committee	Formulating the Sustainable Development Plan and short, medium and long-term goals	Convened 3 meetings
Sustainable Development Profiles	Executing and following up on short-term goals	Meetings were convened when necessary

Taipower's Board of Directors attaches great importance to the implementation of sustainable development. In recent years, the Board has been actively supervising Taipower's policy and implementation regarding environment, social, and governance (ESG). Each month, the President of Taipower reports to the Directors on major achievements or progress. Taipower's SDC has reported on the strategy and implementation of sustainable development to the Directors every year. The opinions of the Directors are listed and tracked item by item. For significant-risk events or policies, project reports on impact management and contingency measures are promptly submitted to the Board of Directors.

According to Taipower's Guidelines for the SDC, the committee is responsible for reviewing the sustainability report. The information disclosed in the report undergoes external verification to ensure its authenticity and is subsequently approved by department heads, the CEO, and the Chairman before being made public.

### 1.3.2 Identification of Stakeholders

2-29

Taipower has spared no effort in building mechanisms that develop mutual trust and communicate with its stakeholders. A survey was conducted to identify the main groups of stakeholders for each of the Company's business units in accordance with the five principles outlined in the "AA1000 Stakeholder Engagement Standards (2015)." Taipower's significant stakeholder groups were identified to ensure thorough coverage of all stakeholders who are relevant to different aspects of Taipower's operations. Reviews on a yearly basis are conducted and adjustments are made as necessary.



# 1.3.3 Stakeholder Engagement

2-29 3-3

### **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 stakeholder suggestions into management measures and operational behavior optimization projects in order to respond to appeals and expectations. As of 2022, the total number of visits to the Sustainable Development section of the Taipower website has reached 500,000, fully demonstrating Taipower's performance and achievements in various sustainability issues.

To strengthen the effectiveness of communication with stakeholders and demonstrate proactive efforts and achievements in promoting sustainable development to the broader world, the Company participated in the "2022 Asia-Pacific Sustainable Action Expo" from August 12 to August 14, with over 20,000 visitors in attendance and coverage in over 330 media reports.

In order to minimize the impact on employees during the Company's transformation and to achieve effective communication with external parties regarding the plans involved, the Company has developed a communication plan and continues to engage in two-way communication with both internal and external stakeholders.

Stakeholder Party	Party
Board of directors	Directors
Shareholders	All shareholders
Employees	Employees and the union
Partners	Contractors, IPPs, suppliers and technology exchange partners
Government / competent authorities	The Ministry of Economic Affairs, the Bureau of Energy, the State-Owned Enterprise Commission, the Environmental Protection Agency, the Atomic Energy Council, the Legislative Yuan and local government agencies
Public representatives	Legislators and elected village/township representatives
The media	Printed, electronic and online media
Private organizations	Environmental conservation groups, enterprise associations, academics
Customers	General and large-scale customers
Residents / general public	Residents near facilities and the general public





This includes reporting progress to the Board of Directors, timely meetings with the Workers' Union to provide explanations, conducting communication and advocacy seminars for employees at various levels and units of the Company, as well as employee education and training for the union. Over 200 such events were held from 2017 to 2022. In the future, various communication activities will continue to be carried out in line with the transformation process.



### **External Communication**

Timely meetings and correspondence with superior authorities to explain the Company's transformation plans and progress, and promptly contacting relevant authorities to seek explanations and suggestions for addressing difficulties and clarifications regarding transformation plans. In the future, communication channels with external stakeholders will be kept open as required by the transformation.

Stakeholders	Main Concerns	Frequency and Methods of Engagement	2022 Engagement Performance	Related Actions
Board of Directors	<ul> <li>Corporate governance and sustainable management</li> <li>Power Industry Transformation and Adaptation</li> <li>Management and Financial Performance</li> <li>Climate change and low-carbon strategies</li> </ul>	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> <li>Held 16 Board of Directors' meetings, 9 Investment Project and Business Plan review committee meetings, and 6 Land review committee meetings</li> <li>Held 8 Audit Committee meetings.</li> <li>Directors (including independent directors) received professional training on corporate governance totaling 189 hours</li> <li>Performance evaluation in 2022 was conducted in accordance with the Board Performance Evaluation Guidelines, and the results were disclosed on the Taipower official website</li> <li>Key reports on the progress of Taipower's transformation were presented</li> </ul>	<ul> <li>Regularly reported to the Board of Directors on progress highlights</li> <li>Conducted timely reporting on projects</li> </ul>
Shareholders	Corporate governance and sustainable management     Management and Financial Performance	Shareholders' meetings     Taipower's official website and Market Observation Post System (MOPS)	<ul> <li>Annual general meeting held on June 24 and shareholders' extraordinary meeting held on December 16</li> <li>Relevant information disclosed on the Public Information Observation Station and Taipower's official website under the Corporate Governance/Shareholders section</li> </ul>	Communicate status with shareholders through the minutes of the regular shareholders' meeting
Employees	<ul> <li>Power Industry Transformation and Adaptation</li> <li>Corporate Governance and Sustainable Management</li> </ul>	<ul> <li>On-the-job training</li> <li>Labor-management meetings</li> <li>Keynote speeches, symposiums</li> <li>Communication briefings on organizational transformation</li> </ul>	<ul> <li>On-the-job training at the Training Institute, training organized by each unit, and external training for a total of 80,822 participants</li> <li>Held seven labor-management meetings</li> <li>Organized five keynote speeches</li> </ul>	<ul> <li>Organized corporate-level labor-management meetings and labor-management communication seminars for each system</li> <li>Collected proposals from union member representatives or branch directors and implemented them after discussions and resolutions at meetings</li> </ul>
Partners	<ul> <li>Renewable and Clean Energy Development</li> <li>Worker Health and Safety</li> <li>Climate Change and the Low-Carbon Strategy</li> </ul>		Currently, these are in the preliminary discussion phase	<ul> <li>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.     </li> </ul>
Government Agencies / Competent Authorities	Corporate Governance and Sustainable Management     Stability and Reliability of Power Supply     Accessibility and Affordability of Electricity     Renewable and Clean Energy Development     Power Industry Transformation and Adaptation     Climate Change and Low-carbon Strategies     Environment Impact Management     Power Plant Renewal and Decommissioning	Board of Directors' meetings     Official documents     Submission of various work schedules     Cooperating and participating in meetings     Smart generation and dispatching forum meeting     Project communication meeting	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> <li>Provided relevant information and attended review meetings in accordance with government regulations and requirements</li> </ul>
Elected Representatives	<ul> <li>Climate Change and Low-carbon Strategies</li> <li>Environment Impact Management</li> <li>Renewable and Clean Energy Development</li> <li>Power Plant Renewal and Decommissioning</li> </ul>	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> <li>Executives at the level of Vice President or above attended 56 sessions at the Legislative Yuan as non-voting participants</li> <li>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 932 times throughout the year</li> <li>Executives at the level of Vice President or above had a total of 65 communication sessions with legislators throughout the year</li> </ul>	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

Stakeholders	Main Concerns	Frequency and Methods of Engagement	2022 Engagement Performance	Related Actions
Media	Power Industry Transformation and Adaptation Renewable and Clean Energy Development Environment Impact Management Stability and Reliability of Power Supply	Press releases Printed media Public hearings / Explanatory meetings On-site visits / Commissioner visits Taipower's official website Market Observation Post System (MOPS)	<ul> <li>Published a total of 68 press releases and 89 instant explanations on issues related to air quality improvement, power supply and demand percentages, 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</li> <li>Proactively releasing news materials in response to external concerns, such as promoting renewable energy, energy-saving measures, preservation of power-related cultural heritage, and recruitment of new personnel. These actions demonstrated Taipower's concrete efforts in response to energy transformation, active development of green energy, and transformation within the power industry.</li> <li>Implementing a spokesperson system to promptly respond and promote important Taipower policies in addressing societal concerns related to people's livelihoods.</li> </ul>	Offered complete press information proactively for media coverage regarding the Company's important business strategies and external concerns to demonstrated the Company's specific actions in response to government policies and social expectations 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
Non-Governmental Organizations	<ul> <li>Environment Impact         Management</li> <li>Power Industry         Transformation and         Adaptation</li> <li>Climate Change and         Low-carbon Strategies</li> </ul>	<ul> <li>Briefing sessions</li> <li>Proactive visits</li> <li>Participation in relevant forums and activities</li> <li>Taipower's official website</li> <li>Taipower publications</li> </ul>	<ul> <li>Meetings according to project needs</li> <li>Publication of the Monthly Journal of Taipower</li> <li>Disclosed the latest corporate information on Taipower's official website</li> </ul>	<ul> <li>Visited non-governmental organizations based on project needs to gain insight into public sentiment and needs and harmonized interactions with stakeholders</li> <li>Published the Taipower Journal, targeting government agencies, business-related units, Taipower employees (including retirees), colleges and universities, etc.</li> </ul>
Customers	Demand-side     Management and     Energy Conservation     Digital Transformation     and Information     Security     Accessibility and     Affordability of     Electricity     Service and Product     Satisfaction     Climate Change and     Low-carbon Strategies     Stability and Reliability     of Power Supply     Environment Impact     Management	Customer comment box     Specialist visits     Occasional newsletters	<ul> <li>The customer comment box received 5,434 letters in 2022</li> <li>Conducted advocacy to promote the usage of high-efficiency electrical appliances and power conservation techniques. A total of 1,502 meetings were held in 2022, with about 200,000 participants</li> <li>Organized a series of power-saving activities over ten consecutive years</li> <li>Power-Saving Service Teams visited 4,456 customers in 2022, with an estimated power saving potential of 103.24 GWh</li> </ul>	<ul> <li>Data collection for energy-saving advocacy campaigns: Each year, a schedule is set for advocacy sessions, which are carried out by regional business offices to promote the use of energy-efficient appliances and energy-saving techniques among users, effectively conveying energy-saving knowledge.</li> <li>Data collection for energy-saving events: Continuously organizing a series of activities to embed energy-saving education through entertaining methods, ensuring that energy-saving knowledge takes root and becomes a nationwide trend.</li> <li>Data collection for user visits by the energy-saving service teams: Each year, a target number of household visits is set, and regional business offices are responsible for assessing the potential for energy-saving and promoting demand response measures to achieve the desired visitation benefits.</li> </ul>
Residents / The General Public	Environment Impact     Management	The Taipower fan page on Facebook Public information on the official website	<ul> <li>The Facebook fan page had more than 40 million views in 2022</li> <li>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</li> <li>Disclosed financial information and corporate governance status in the "Corporate Governance Section"</li> </ul>	<ul> <li>The themes of the Taipower's fan page include electricity knowledge, electrical safety, energy-saving tips, and other content related to electricity in daily life, as well as the latest convenient services and activities. In terms of policy promotion, the Company explains the reinforcement of grid resilience, regional power outages, and Taipower's efforts towards net- zero emissions through infographics and texts</li> </ul>

### Material External Communication Policies ▶▶









### **Media Communication**

Taipower proactively releases complete press information packages 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 at the frontline of communicating public concerns, policy direction, and planning. Taipower has been actively responding to questions of legislators and seeking policy planning support. Taipower attends various businessrelated 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 solutions.

# 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.

# Participation 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 2022, the Company engaged with 25 international organizations, 78 academic organizations, and 6 professional organizations for a total of 109 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 health and safety.

# 1.3.4 Key Sustainability Issues

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In compiling the Sustainability Report, Taipower makes reference to sustainability reports from electricity industry participants in other countries. The material topics from these reports are consolidated to identify issues in the energy, solar, wind, and biofuel industries and then integrated with the industry materiality map issued by the Sustainability Accounting Standards Board (SASB). Material topics are then taken into consideration when selecting sustainability issues. The major industry issues are divided into four major categories – climate and energy, people and communities, biodiversity, and circular economy – in the report "SDG Sector Roadmap for the Electric Utilities Sector" published by the World Business Council for Sustainable Development (WBCSD) in March 2021.

In 2022, Taipower has aligned with international trends to evaluate and include "circular economy" in the list of key sustainability issues. Additionally, the topics of "information security and customer privacy" and "ecofriendliness" have been revised and enhanced to consider the implications of "digital transformation" and "biodiversity."

To identify the material topics of concern to stakeholders, Taipower refers to the GRI Standards to conduct materiality analysis that reviews and identifies the key material topics for the Company. In 2022, Taipower additionally sought to identify material topics by surveying stakeholders. Survey results were collected from 123 Taipower employees (including 39 senior executives) and 218 other stakeholders for a total of 341 responses.

### Identification Process for Material Topics >>

### **Review and identification**

- Review of sustainability issues identified in the previous year
- Examine relevant major sustainability trends at home and abroad, such as amendments to the SASB guidelines and domestic regulations
- Examine Taipower's management issues, benchmarks in the electrical industry, the opinions of internal and external stakeholders, and major news events
- Identified 22 sustainability issues

### **Evaluation and prioritization**

- The possible impacts of various issues on Taipower and the degree of their influence on different stakeholders are determined through a questionnaire
- 39 employee questionnaires were used to comprehend the impact of issues on the economy, society, environment, and to understand the importance of issues to business operations
- 302 questionnaires were collected from various other stakeholders to understand the impacts of issues on different stakeholders

### **Confirmation of material topics**

- Confirm the material topics matrix through materiality product sorting and Taipower's internal engagement
- · Determine the structure and content of the Taipower Sustainability Report based on the analysis results

# Based on the identification process in the above table, a multi-dimensional overview of trends and events was used to adjust and prioritize the list of material topics in Taipower's sustainability report this year. The topics are outlined in the following table

Former material topics	New material topics	Adjustment	Explanation
Transforming into a Power Utility Group and Power Industry Reform and Fair Competition	Power Industry Transformation and Adaptation	Consolidated with other material topics and renamed	Taipower has merged the original topics of "Transforming into a Power Utility Group" and "Power Industry Reform and Fair Competition" and made slight adjustments by renaming it "Power Industry Transformation and Adaptation." This change reflects Taipower's response to the reform of the electricity industry law, its organizational restructuring, and its transformation into a holding group. Taipower has also formulated relevant plans to maintain its competitiveness in the future electricity market.
Information Security and Customer Privacy	Digital Transformation and Information Security	Renamed and Fine-tuned implications	The slight adjustment is a response to international benchmark trends in the power industry by incorporating the dimension of "digital transformation." This includes constructing digital infrastructure, building a smart power industry, and simultaneously strengthening information security management and ensuring customer privacy.
Environmental Impact Management and Air Quality	Environment Impact Management	Consolidated	The slight adjustment reflects the inclusion of air quality management.
Ecological Friendliness	Ecological Friendliness and Biodiversity	Renamed	In response to international sustainability trends, emphasis is now placed on the significance of biodiversity conservation.
NA	Circular Economy	New	Circular economy is an emerging topic within the international power industry, and in response to global trends, this sustainability theme has been included in the assessment of major topics.
Stakeholder Engagement and Information Transparency	NA	Consolidated	"Stakeholder communication" was deemed a necessary disclosure but does not require a major topic assessment. Therefore revisions have been made. "Information transparency" has been integrated into the theme of "corporate governance and sustainable operations."
Employee Rights and Benefits	Human Rights and Inclusivity	Renamed and fine- tuned implications	In response to international trends and the disclosure requirements of the 2021 GRI Guidelines, the theme has been revised to "Human Rights and Inclusion." Taipower is committed to respecting and protecting the human rights of all stakeholders, including employees, throughout its operations and strives to prevent any human rights violations.

### 2022 Material Topics Matrix ▶▶

Level of influence

on stakeholder's assessment and decision-making

# Material topics Common topics

Environment topics

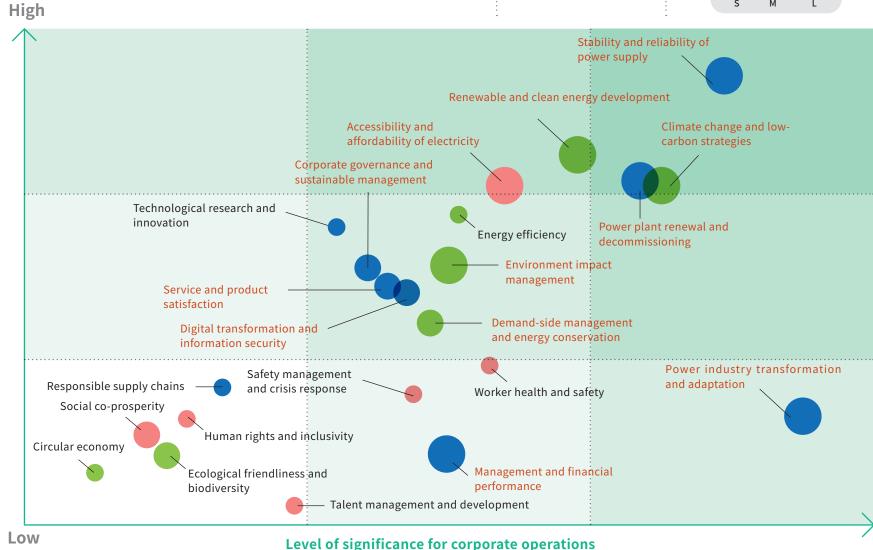
Social topics

Governamce topics

Size of bubble: Impact on external economy, environment and society



High



1 Taipower and

Sustainability

With the help of the material topics matrix Taipower has summarized the materiality of various sustainability issues. The Company sorted the issues based on the X, Y, and Z axis of each topic. Twelve material topics that fall within the scope of this report were identified through communications with stakeholders. These topics will be the main focus of this report. All of the topics are related to sustainability trends from around the globe and are also of significant concern to stakeholders. For example, in the aspect of governance, both "Corporate governance and sustainability management" and "power supply stability and reliability" have long been points of focus for Taipower. As the principal power supplier for the public and businesses in Taiwan, the Company is concerned about "Service and product satisfaction," "Digital Transformation and Information Security," and "Power Plant Renewal and Decommissioning." The topics "Power Industry Transformation and Adaptation" and "Management and Financial Performance" are also essential issues for the operation and future transformation of the power industry.

In terms of the environment, the development of energy transformation trends has brought issues such as "renewable and clean energy development," "climate change and low-carbon strategy," and "demand-side management and energy conservation" to the forefront. Consequently, enterprises must attach importance to the environmental impact caused by their operations. At present, Taipower's generation is still primarily based on thermal power. Therefore, "Environment Impact Management" is the emphasis of environmental disclosure under the current energy structure.

As a state-owned enterprise, Taipower is charged with fostering the development of quality of life and livelihood in Taiwan. As such, it devotes itself to improving the accessibility of electricity, gives consideration to providing reasonable electricity prices for the general public, and has continued to include "accessibility and affordability of electricity" as a material topic. The following are the material topics and where each material topic impacts ESG.

Material Topics	Location of Economic / Environmental / Social Impact							
	Within Taipower	Business Relationships		Other Social Relationships				
		Partners	Users	Private organizations	Government units	Residents / general public	Relevant GRI Standards	Management Policies and Corresponding Chapters
Corporate governance and sustainability management	<b>,</b>	<b>v</b>			<b>,</b>		General Disclosures: Governance and compliance with laws and regulations Economic: Anti-corruption	1.1 Taipower Business Overview and Strategy     1.3 Sustainable Governance     2.2 Risk Management and Response     2.4 Integrity and Compliance
Management and financial performance	<b>,</b>						General Disclosures: The size of the organization Economic: Direct economic impacts	1.1 Taipower Business Overview and Strategy
Power industry transformation and adaptation	<b>,</b>				<b>,</b>		Topics Specific to Taipower	1.1 Taipower Business Overview and Strategy 1.3 Sustainable Governance
Digital transformation and information security	<b>v</b>		<b>,</b>				Customer Privacy	5.1.3 Digital Transformation 5.2.2 Guarding Information Security
Accessibility and affordability of electricity	<b>v</b>		<b>v</b>		<b>v</b>		Economic: Indirect economic impacts	1.1 Taipower Business Overview and Strategy 3.1 Providing Quality Electricity Service
Stability and reliability of power supply	<b>v</b>	<b>v</b>	<b>,</b>		<b>,</b>		Economic: Indirect economic impacts	3.1 Providing Quality Electricity Service
Renewable and clean energy development	<b>v</b>	<b>v</b>			<b>v</b>		Economic: Indirect economic impacts Environmental: Emissions	3.2 Planning for New Sources of Energy
Power plant renewal and decommissioning	<b>,</b>				<b>,</b>		Economic: Indirect economic impacts	3.2 Planning for New Sources of Energy
Service and product satisfaction	<b>v</b>		<b>v</b>				Topics Specific to Taipower	5.2 Customer Service and Management
Demand-side management and energy conservation	<b>v</b>		<b>v</b>				Economic: Demand-side management Environmental: Energy	4.1 Smart Grid General Planning 5.1 Smart Electricity Service
Climate change and low-carbon strategies	<b>v</b>	<b>v</b>	<b>,</b>	<b>,</b>	<b>v</b>		General Disclosures: Governance Economic: Indirect economic impacts Environmental: Emissions and energy	6.1 Strengthening Environmental Management 6.2 Reducing Use of Energy and Resources
Environment impact management	<b>v</b>			<b>v</b>	<b>,</b>	<b>,</b>	Environmental: Emissions	6.3 Minimizing Environmental Impacts