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## Taipower and Sustainability



### ◆ 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 its stakeholders. The Company will also internalize suggestions and feedback about its operations from those stakeholders while gradually embracing the next generation of power industry trends.

### ◆ Performance Highlights

- Awards received at the 2021 Taiwan Corporate Sustainability Awards (TCSA): received a fourth **Taiwan Corporate Sustainability Report Platinum Award**, the **Taiwan Corporate Sustainability Excellence Award**, and the **Creativity in Communication Leadership Award**
- Ranked 40th in the large enterprise group at the 2021 Common Wealth Magazine **CSR Sustainable Citizenship Awards**. Taipower was the only state-owned enterprise to receive the award this year
- Won the **Social Empowerment** and the **Circular Economy Leadership Awards** at the 2021 Asia Responsible Enterprise Awards (AREA)
- Won the Environmental Sustainability Award for the project "The Key Step of Renewable Energy Development: Kinmen Energy Storage Demonstration System" at the 2021 Taiwan Sustainability Action Award (TSAA)

## Primary Awards



### Sustainable Development

- ▶ **The 2021 TCSA Taiwan Corporate Sustainability Awards**  
Received a fourth Taiwan Corporate Sustainability Report Platinum Award, as well as the Taiwan Corporate Sustainability Excellence Award and the Creativity in Communication Leadership Award
- ▶ **The 2021 Taiwan Sustainability Action Awards (TSAA)**  
Won the Environmental Sustainability Award for the project "The Key Step of Renewable Energy Development: Kinmen Energy Storage Demonstration System"
- ▶ **The 2021 Asia Responsible Enterprise Awards (AREA)**  
Won the Social Empowerment and the Circular Economy Leadership Awards
- ▶ **The 2021 Common Wealth Magazine CSR Sustainable Citizenship Awards**  
Attained 40th place in the large enterprise group for its efforts in the four areas of "corporate governance," "corporate commitment," "social participation," and "environmental sustainability." Taipower was the only state-owned enterprise to receive the award this year



### Engineering Innovation

- ▶ **The 21st Public Construction Golden Quality Award and the Executive Yuan and Public Construction Quality Award from the Ministry of Economic Affairs**  
The two awards were received for the "69kV Switch Field Repair Project for the Dongbu Power Plant Tongmen and Longjian Branch Plant"
- ▶ **The 2021 Taiwan Innotech Expo**  
The Company participated in the invention competition with four technologies related to carbon reduction and environmental protection within the circular economy and received four bronze medals
- ▶ **The 2021 Presidential Hackathon Excellent Team Award**  
The "Master - Fish Farming" Team won the highest honor – the Excellent Team Award – by proposing the concept of a "Shared Ocean Ranch" that uses warm drainage from power plants for fish and algae farming and carbon fixation
- ▶ **The 2021 Smart Grid Index (SGI) from the Singapore Power SG Group**  
In the smart grid development evaluation of power companies in various countries, Taipower jumped from 10th place last year to 2nd place among the 86 evaluated global power operators
- ▶ **The 2021 Asian Power Silver Medal Awards**  
The Third Nuclear Power Plant's (NPP3) "Safety-related Enhancement Project for Tank Earthquake Resistance" won the Asian Power Silver Medal Award issued by Asian Power Magazine
- ▶ **The 2021 Award of Excellent Green Building Works (Dimond Grade)**  
The NPP3 Exhibit Center in Southern Taiwan was awarded the "Award of Excellent Green Building Works" by the Ministry of the Interior



### Operations Management

- ▶ **The 2021 National Talent Development Awards**  
The Kaohsiung Training Center of the Training Institute continues to strive for excellence and received the highest honor in the field of national human resources by winning the Talent Development Quality Management System (TTQS) Gold Medal Award
- ▶ **The 2021 Happiest Employees Awards**  
Honored with a "Gold Award" in the manufacturing industry – the only state-owned enterprise in the manufacturing industry to win the Gold Award
- ▶ **The 2021 Occupational Safety and Health Excellent Awards**  
The Second and Third Nuclear Power Plants (NPP2 and NPP3) were both awarded the Occupational Safety and Health Excellence Award issued by the Ministry of Labor



### Social Co-prosperity

- ▶ **The Golden Pin Design Awards from Taiwan Design Research Institute**  
The "2021 Daily Taipower" calendar won a "Communication Design" mark at the Golden Pin Design Awards, and the "2020 Taipower Cultural Heritage Special Exhibition - Charged with Electricity" won the "Integration Design" mark
- ▶ **The 2021 Sports Activist Awards**  
Three primary awards, "Sponsor Category Gold Award," "Sponsor Category Long-term Sponsor Award," and "Promotion Category Gold Award," were presented by the Vice President
- ▶ **For Social Innovation Products and Services Procurement in 2021 from the Ministry of Economic Affairs**  
Received a "Special Award" in the "Public Service Innovation" category at the "Homecoming" special exhibition of the circular economy during Environment Month

# 1.1 Taipower Business Overview and Strategy

## 1.1.1 Taipower Profile [102-1](#) [102-2](#) [102-3](#) [102-4](#) [102-5](#) [102-6](#) [102-7](#)

Established on May 1, 1946, Taipower is a state-owned power industry group that operates in generation, transmission, distribution, and the sale of electricity. It is responsible for providing a stable electricity supply. Revenue from electricity sales accounted for 95.7% of the total revenue in 2021. As of 2021, the installed capacity in the Taipower System (including independent power producers) was 51.15 GW, consisting mainly of thermal power generation with hydroelectricity and renewable energy. In terms of transmission and distribution, Taipower's system has 619 substations, and its total length of power transmission lines reached 17,995 circuit kilometers while its total length of distribution lines reached 399,813 circuit kilometers in 2021.

In response to the recent global trends toward sustainability and the development of future electricity markets, Taipower has promoted 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 adopted a policy of centralization and management decentralization, 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 aims 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.

<b>Founded</b>	May 1, 1946
<b>Coverage</b>	Taiwan, Penghu, Kinmen and Matsu areas
<b>Headquarter</b>	Taipei City
<b>Capital</b>	NT\$330 billion
<b>Shareholding</b>	96.92% government-owned; 3.08% private owned
<b>Total assets</b>	2,205.74 billion
<b>Operating revenue</b>	6,210.2 billion
<b>Number of employees</b>	27,860
<b>Number of users</b>	14.75 million
<b>Installed capacity</b>	51.15 GW in the Taipower system (Taipower-owned: 34.32 GW)
<b>Net amount of generated and purchased power</b>	248,800 GWh

As of 2021/12/31.

## Core Values

The successful operation of the power industry must contend with the trilemma of energy security, environmental sustainability, and affordable price. In response to global climate change, domestic energy transition, and the 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 employees, and allow it to move toward becoming a superior and sustainable power business group.



## Management Strategy

Taipower is accountable for the reliability of the power supply, and for remaining eco-friendly while implementing national energy policies that meet business and household needs. Each year, Taipower conducts continuous reviews in order to comply with the specifications of the latest amendments of the Electricity Act. The Company also takes a range of other factors into account such as green energy, carbon reduction, energy conservation, and stable 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.



## Taipower's Power Plants and Power Grid



## 1.1.2 Operational Performance 103-2 103-3 203-2 203-1

### Sustainability Operation Goals and Financial Performance

In recent years, Taipower has been actively strengthening its business constitution, implementing goal setting and performance management appraisal, and annually reviewing indicator items to meet its overall operating objectives. In 2021, eighteen 18 overall targets and 112 key performance indicators were set, and a total of 99 were completed. In 2022, 41 overall targets and 117 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 2019 to 2021 was as follows.



#### Financial Performance

Unit: NT\$ millions

Year	Total assets	Operating revenue	Pre-tax profit	Equity data
2019	2,072,525	594,185	17,326	304,614
2020	2,145,316	604,648	23,855	326,296
2021	2,205,736	621,023	22,242	350,634

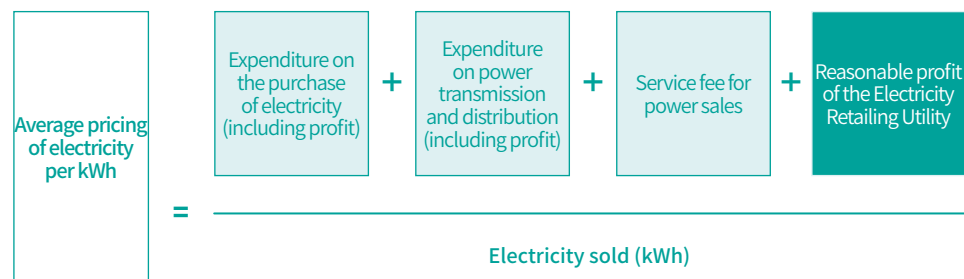
Note: 1. Taipower is a state-owned enterprise and, according to law, its final accounts are subject to review and certification by the National Audit Office. At the time of publication, the actual performance for 2021 has not been reviewed and certified by the National Audit Office and is thus reported according to the numbers reviewed and certified by certified public accountants.

2. The numbers for 2020 are reviewed and audited final accounts. Following the completion of this process, there are now some differences from the disclosure for the 2021 Sustainability Report.

Under the premise of stabilizing the power supply and meeting the needs of the public, the review mechanisms for electricity tariffs will continue to be a critical issue for Taipower. 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 and Taipower's operational performance. The electricity tariff is reviewed and adjusted twice a year. 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.

The Ministry of Economic Affairs held its electricity tariff review meetings in March and September of 2021, respectively. Taipower submitted electricity tariff review proposals with +0.07% and +1.20% adjustments. After evaluating international oil prices and the economic impact of the pandemic, the meeting concluded that the electricity tariff should remain unchanged and therefore not be adjusted. This was partially in consequence of Taipower's adjusted earnings in 2020 exceeding the reasonable profit of \$14.162 billion, and being deposited into the tariff stabilization reserve following the resolution of the 2021 review meeting. The funds will now be used for future tariff stabilization.

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



### The Average Prices of Residential, Industrial, and Commercial Electricity from 2019 to 2021

Unit: NT\$/kWh

Category of Power Consumption	2019	2020	2021
Residential	2.5256	2.5596	2.5110
Industrial	2.4738	2.4461	2.4592
Commercial	3.2381	3.1787	3.1861
Other	2.6637	2.6586	2.6353

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.

## Diversified Management and Strategies

Taipower is pursuing an expansion strategy aimed at extending its original business in the electricity industry, strengthening asset revitalization, and entering spin-off businesses. The Company is aggressively venturing into energy-related emerging industries and promoting renewables-related energy generation, energy storage, energy conservation, and smart energy management. Taipower's diversified business strategy and short, medium, and long-term revenue objectives are regularly reviewed on an annual basis and included in the performance indicators of relevant units. The implementation results of diversified projects are tracked and controlled quarterly to progressively cultivate corporate competitiveness, keep growth momentum, increase the Group's revenue, and strengthen financial performance.

At present, Taipower has successfully initiated intrapreneurship in areas such as power operation and maintenance, communication, real estate, cultural innovation, etc. It has also moved forward with reinvestment businesses such as coal and mine development, cogeneration, wind power training, etc. The Company generated \$3.1 billion in income from these diversified activities in 2021. Taipower's new business development will continue to utilize the Company's existing advantages and to synchronize them with external resources to dynamically deploy energy-related businesses more flexibly and support Taipower in developing its smart grid and digital energy internet, and to create opportunities for the development of the broader emerging energy industry.

### Diversified Business Income in The Past Three Years



Note: There were fewer earnings from diversification in 2020, mainly due to coal sales proceeds from reinvestment in the coal mine development being affected by the global pandemic, and the drop in international coal prices. The annual income was for that year was only \$300 million, which was \$700 million less than the target value (\$1,000 million).

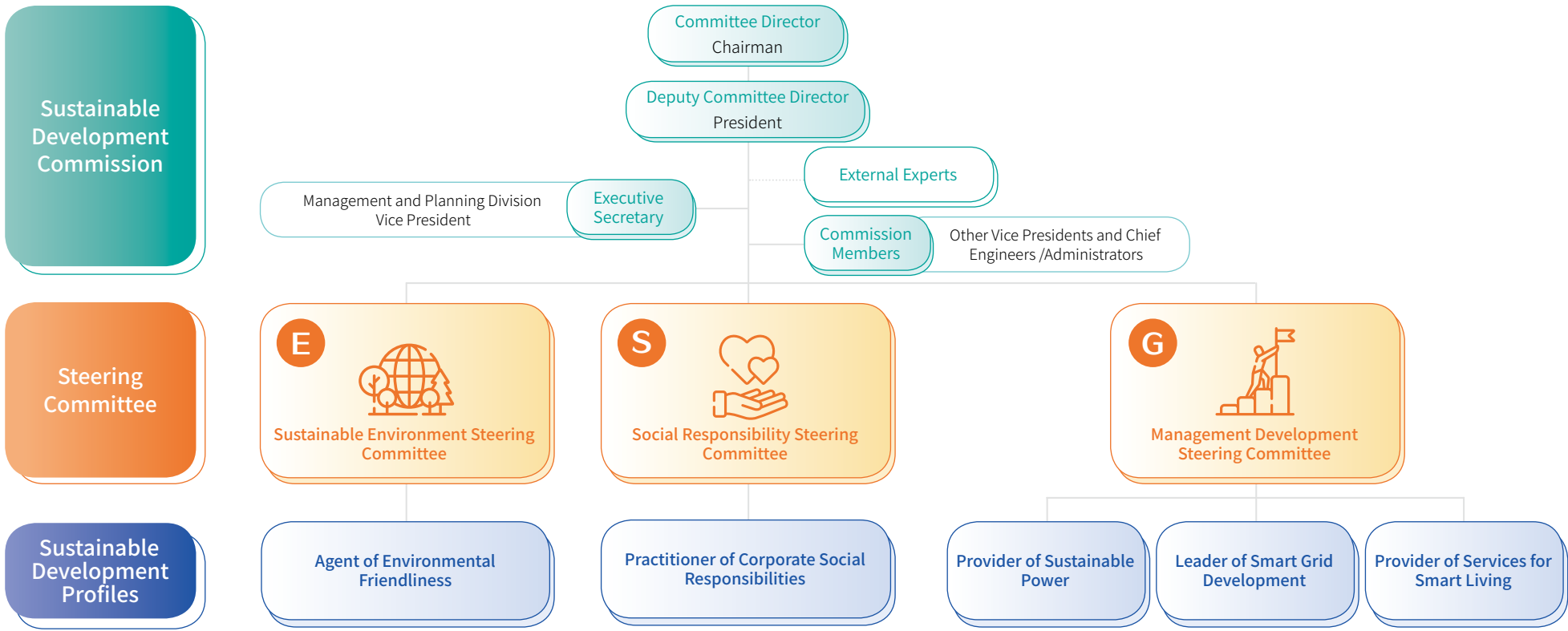
# 1.2 Implementing Sustainable Development

## 1.2.1 The Sustainable Development Commission 102-18 102-22

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

Taipower set up a Sustainable Development Commission (SDC), with the chairman of the board of directors as the SDC's chairman, the president as the SDC's deputy chairman, and the 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. Through these three steering teams, the SDC tracks the implementation results of Taipower's short, medium, and long-term goals. Each committee analyzes the external environment and policy changes to plan the long-term sustainable development direction and to identify material issues of the company from three aspects: business development, environmental sustainability, and social responsibility. Since 2021, the SDC has reported on progress to the board of directors each year. Moreover, it also promptly submits special reports to the board of directors on relevant impact management and contingency situations for areas of policy or significant risk.

Structure of the Sustainable Development Commission





## Key Tasks of the SDC

### Management Development Steering Committee



The committee is currently focused on planning management direction and executing its transformation. Management direction is set by establishing 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 three 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. Taipower follows international trends and industry dynamics and conducts continuous reviews. Currently, Taipower is focused on climate-related risks and current phase results have been disclosed in 2.2.2 Environment and Climate Change Risks. The actual performance of the SDC is as follows:

### Actual Performance in 2021

Name of Meeting	Responsibilities	Actual Performance in 2021
<b>Sustainable Development Commission</b>	Planned the Company's long-term sustainable development, established material topics and approved the Company's Sustainable Development Blueprint	Convened 1 meeting
<b>Steering Committee</b>	Formulated the Sustainable Development Plan and short, medium and long-term goals	Convened 3 meetings
<b>Sustainable Development Profiles</b>	Executed and followed up on short-term goals	Meetings were convened when necessary

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

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. Since 2021, Taipower's Sustainable Development Commission 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.

# 1.3 Promoting Corporate Transformation

## 1.3.1 Transformation Planning 103-2 103-3 102-10

### Core Transformation Concept

The Electricity Act was amended in 2017 with Article 6 stating that the "Electricity Transmission and Distribution Enterprise may not engage in the generation of electricity." This provision was initially expected to take effect in January, 2023 (Note: The electricity industry regulatory authority may submit requests for postponement to the Executive Yuan following assessments of the development and condition of the electricity market. Postponements can be made no later than January, 2026). An extension has now been granted by the Executive Yuan until January 1, 2025. In accordance with the law, Taipower will transform into a parent holding company and set up generation, transmission and distribution companies under it.

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 the stable power supply, energy transformation, a nuclear-free homeland, air pollution reduction, and 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, strategy 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, 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 department 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 preparing the electricity reserve capacity and electricity carbon emission factors. In preparation 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.

### 1.3.2 The Current Status of Promoting Transformation in Taipower 102-10

To prepare for the transition to parent and subsidiary operations, Taipower has studied external experiences through research projects and exchanges with benchmark companies. It has established a Transformation Promotion Commission that is chaired by the Company Chairman and set up related task forces. Through intense discussion, these task forces are actively planning and preparing for the organizational, financial, and operational aspects of transformation. The results as of 2021 are as follows:



#### Organizational

Taipower's transformation is the first among state-owned enterprises, and its organizational planning is particularly complicated. From 2017 to 2018, the parent-subsidiary functional position was first determined. From 2019 to 2020, the division of businesses between parent and subsidiary companies was carried out, and the attributions and divisions of labor for the 19 non-business divisions were discussed one-by-one. From 2020 to 2021, parent-subsidiary organizational planning was continued and carried out according to the division of the business. After a total of 41 meetings and discussions with first-tier units, senior executives, and the Power Labor Union, a consensus within the Company about the divisional organization of the Group was gradually built, and the organizational framework at the division level of the three companies was approved in October, 2021. Currently, more detailed organizational and workforce planning is ongoing.



#### Financial

Taipower established a separate accounting system in 2018 then completed a separation accounting procedures manual in 2019. The Company has prepared separate accounting reports for the transmission and distribution utility yearly since 2019. These are submitted to the Bureau of Energy for reference within the prescribed periods after being certified by CPAs. In addition, the division principle for the Group's real estate assets was completed in 2020, and the attribution of real estate assets was completed in 2021. The Company continues to study and analyze issues such as corporate bond transfer, taxation, NPP4 derogation processing, back-end decommissioning costs, and the repurchase of dissenting shares and is establishing a financial structure for the stable operation of parent and subsidiary companies through the continuous review of financial calculations.



#### Operational

Taipower is actively studying the Group's governance structure and management system. It has planned a trial run for the Group's administrative mechanisms to confirm the feasibility of financial flow plans and the smoothness of business operations before the transformation occurs.



# 1.4 Stakeholders and Key Sustainability Issues

## 1.4.1 Identification of Stakeholders 102-40 102-42 102-43

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.

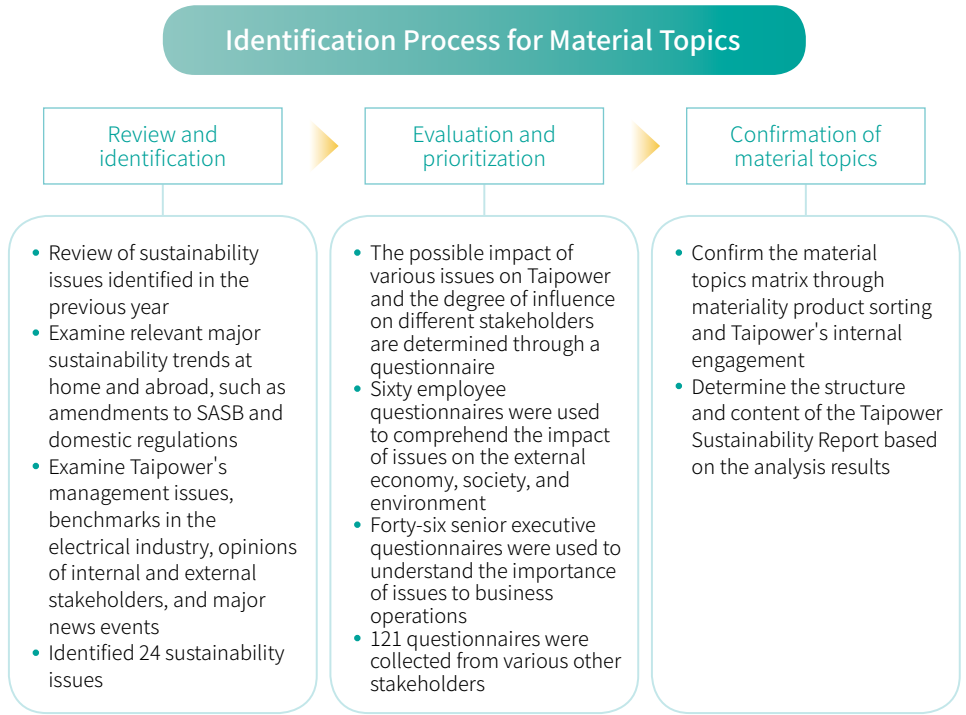
Stakeholder	Party
<b>Board of directors</b>	Directors
<b>Shareholders</b>	All shareholders
<b>Employees</b>	Employees and the union
<b>Partners</b>	Contractors, IPPs, suppliers and technology exchange partners
<b>Government/competent authorities</b>	The Ministry of Economic Affairs, the Bureau of Energy,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

## 1.4.2 Key Sustainability Issues 103-1 102-44 102-47 102-48 102-49

In compiling its annual reports, 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.

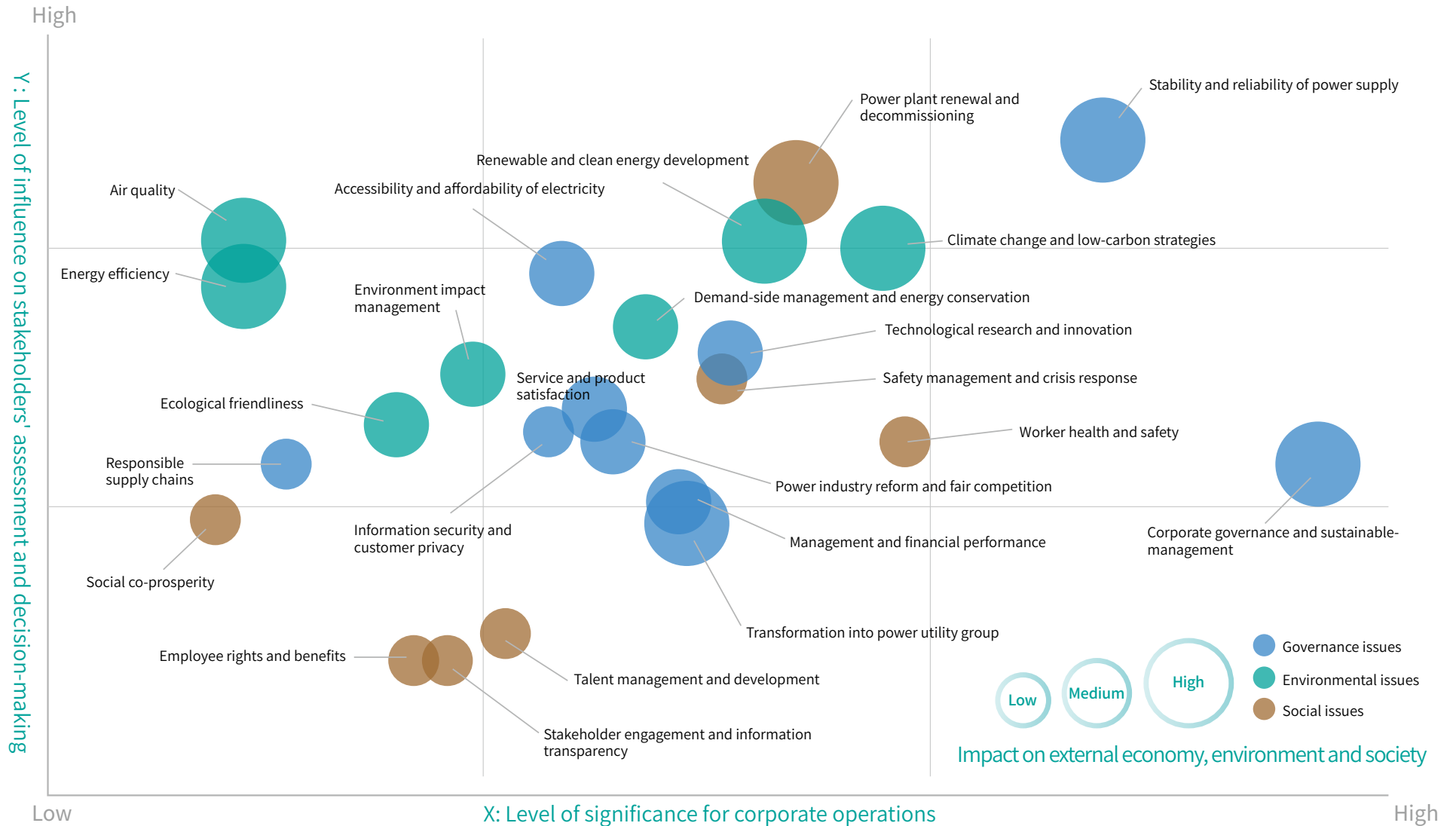
To identify the material topics of concern to stakeholders, Taipower refers to the GRI Standards to conduct materiality analysis that reviews and identifies the key material topics for the Company. Additionally, Taipower continues to observe international sustainability trends and has identified the "circular economy" as an emerging issue within the global power industries. In 2021, Taipower developed strategies for circular economies and will continue to discuss the issue. The Company has also included "circular economy" in its list of material topics. In 2022, Taipower additionally sought to identify material topics by surveying stakeholders. Survey results were collected from 106 Taipower employees (including 46 senior executives) and 121 other stakeholders for a total of 227 responses.



Based on the identification process in the above figure, 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
Integrity and sustainability management	Corporate governance and sustainability management	Consolidation of other material topics and renamed	Consolidated the former "integrity and sustainability management" with relevant regulatory penalties in "anti-corruption" and "environmental impact management and compliance," fine-tuned and renamed to "corporate governance and sustainability management," demonstrating Taipower's promotion of corporate governance, commitment to legal compliance, and advancement of integrity and anti-corruption. At the same time, sustainable development was combined with operational tactics, developing a sustainable governance structure and strategy, and strengthening corporate resilience.
Environmental impact management and compliance	Environmental impact management	Consolidation of other material topics and renamed	Legal compliance is a governance issue and spans ESG aspects. It was recommended that the focus be placed on "environmental impact management" here and that implications be fine-tuned to focus on the management of water resources, waste, and hazardous substances to minimize the negative environmental impact of Taipower's operation.
Transforming into a new energy group	Transforming into a power utility group	Renamed	This topic remains fundamentally unchanged, but includes an improved explanation of the shift from internal governance to group management and the splitting of the business division. It will continue to follow the development of Electricity Act toward the liberalization of the electricity industry.
Rationality of electricity price, accessibility, and popularity of electricity	Accessibility and affordability of electricity	Consolidation of other material topics and renamed	Consolidated the former 2021 governance issue "rationality of electricity price" and the social issue "accessibility and popularity of electricity," fine-tuned and renamed it "accessibility and affordability of electricity," and shift it to the social aspect. This adjustment is based on the relevant requirements of SASB indicators, indicating that Taipower is devoted to improving the popularity of electricity services and maintaining affordable electricity prices that stabilize Taiwan's livelihood needs.
Power plant renewal and decommissioning	Power plant renewal and decommissioning	Shifted	In 2021, "Power plant renewal and decommissioning" highlighted the impact of plant decommissioning on residents in surrounding areas, and so was focused on social aspects. As the issue of energy transformation becomes increasingly important, "power plant renewal and decommissioning" has become part of the energy transformation plan. Since energy transformation is a governance issue, this material topic has been shifted from the social aspect to the governance aspect.
Climate change and low-carbon strategy	Climate change and low-carbon strategy	Fine-tuned implications	In response to the net zero carbon emissions trend, implications were fine-tuned to improve the explanation of how Taipower inventories and manages its greenhouse gas and carbon emissions. Climate change risks were identified and carbon reduction targets were set to cope with the possible future impacts of climate change risks.
Stakeholder communication and information transparency	Stakeholder communication and information transparency	Fine-tuned implications	Keenly communicate with stakeholders through different channels, strive to enhance information transparency, improve explanations for sudden disputes, and be able to respond positively and promptly.
Humanistic development and Social prosperity	Social prosperity	Consolidation	With reference to other benchmark power industry topics, the relevant contents of "humanistic development" were consolidated into the topic of "social prosperity," which indicates that Taipower enthusiastically supports social welfare, including the preservation of cultural assets in the power industry, the strengthening of community relationships at the pre-operation site, and the carrying out of actions in popular science, rural education, etc. to develop the collective intelligence of society and enhance the positive influence of Taipower in society.

## 2021 Material Topics Matrix



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. Fourteen 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 "power industry reform and fair competition," "technological research and innovation," and "power plant renewal and decommissioning." The topics "transforming into a power utility group" and "management and financial performance" are also essential issues for the operation and future transformation of the power industry.

In terms of the environment aspect, 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, "energy efficiency" and "air quality" are emphases of environmental disclosure under the current energy structure.

The successful maintenance of a stable power supply is fundamentally the consequence of the joint efforts of Taipower's conscientious engineering units. Hence, Taipower proactively attends to industrial safety issues and has made "worker health and safety" a material issue. 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					Relevant GRI Standards	Management Policies and Corresponding Chapters	
	Within Taipower	Business Relationships		Other Social Relationships				
		Partners	Users	Private organizations	Government units			Residents/general public
Corporate governance and sustainability management	✓				✓		General Disclosures: Governance Economic: Anti-corruption Environmental: Environmental Compliance Social: Socioeconomic Compliance	1.1 Taipower Business Overview and Strategy 1.2 Implementing Sustainable Development 2.2 Risk Management Mechanisms and Control Measures 2.3 Integrity and Compliance
Management and financial performance	✓						Economic: Performance	1.1 Taipower Business Overview and Strategy
Transformation into a power utility group	✓				✓		Topics Specific to Taipower	1.1 Taipower Business Overview and Strategy 1.3 Promoting Corporate Transformation
Power industry reform and fair competition	✓				✓		Topics Specific to Taipower	1.3 Promoting Corporate Transformation
Accessibility and affordability of electricity	✓				✓		Economic: Indirect Economic Performance	1.1 Taipower Business Overview and Strategy 3.1 Providing High Quality Electricity Service
Stability and reliability of power supply	✓	✓			✓		Economic: Indirect Economic Performance	3.1 Providing High Quality Electricity Service
Renewable and clean energy development	✓	✓			✓		Economic: Indirect Economic Performance	3.2 Planning for New Source of Energy
Power plant renewal and decommissioning	✓				✓		Economic: Indirect Economic Performance	3.2 Planning for New Source of Energy
Technological research and innovation	✓				✓		General Disclosures: Governance	4.1 The Smart Grid General Planning 4.2 Smart Grid Application- Vehicle-to-Grid Bi-directional Charging System
Demand-side management and energy conservation	✓		✓				Economic: Indirect Economic Performance	4.1 The Smart Grid General Planning 5.1 Smart Electricity Service
Climate change and low-carbon strategies	✓				✓		Environmental: Energy	6.1 Strengthening Environmental Management 6.2 Reducing Use of Energy and Resources
Energy efficiency	✓		✓		✓		Environmental: Energy	6.2 Reducing Use of Energy and Resources
Air quality	✓						Topics Specific to Taipower	6.3 Minimizing Environmental Impact
Worker health and safety	✓	✓					Social: Occupational Health and Safety	7.2 A Sound Working Environment