Business Plan FY 2022 of Organization for Cross-regional Coordination of Transmission Operators, Japan

This Organization, as an Organization for Cross-regional Coordination of Transmission Operators, Japan specified in Article 28-4 of the Electricity Business Act (hereinafter, "the Act"), will carry out the following business with an aim to secure stable electricity supply nationwide and promote effective utilization of transmission and distribution facilities through cross-regional operation of the electricity business.

1. Transitioning to next-generation networks that will help make renewable energy a primary energy source and boost the resilience of electric power

The Organization will engage in the following three initiatives with a view to establishing next-generation networks that will help make renewable energy a primary power source and boost the resilience of electric power toward achievement of carbon neutrality by 2050:

- Establish rules on the use of electric networks to make renewable energy a primary power source and consider matters that help building up grid facilities by effective use of network facilities and efficient investment
- Evaluate demand-supply balance properly and conduct a review to secure stable and reasonable energy supply even when there are changes in the composition of power sources and rules on the use of electric networks accompanying with transition of renewable energy into a primary power source.
- Make demand forecasts with a focus on medium- to long-term changes in societal structures

1-1. Aggregation, review and submission of electricity supply plans to the Minister of Economy, Trade and Industry (Item 4 of the Paragraph 1, Article 28-40 of the Act)/ Business regarding solicitation of persons who keep and operate electrical facilities for power generation through safeguard and other measures for generator procurement and regarding promotion of installment of other electrical facilities for power generation (Item 5 of the Paragraph 1, Article 28-40 of the Act)/ Provision of relevant information and liaise and coordination with respect to the services for electricity transmission and distribution, etc. (Item8 of the Paragraph 1, Article 28-40 of the Act)

(1) Building up facilities for the construction of next-generation networks through electricity supply plans

Supply reliability assessments will be deepened by considering changes in the composition of power sources and the use of electric networks and the opening of capacity market schemes. In addition to evaluating the balance of supply and demand in Japan through supply plans by different utilities, we will verify the suitability of the development, suspension, and decommissioning of power sources and transmission lines and submit domestic matters that should be appropriately addressed along with feedback from the standpoint of stable supply to the Minister of Economy, Trade, and Industry. And, we will examine matters that include the necessity of coordination for improvement of demand and supply balance and of measures on supply capacity based on the progress of suspension and decommissioning of power sources, then enhance the information sharing in the Organization so as to identify signs of deterioration of demand-supply situation at an early stage and establish systems to implement measures on supply capacity flexibly.

(2) Operations related to demand forecasts and the verification of the demand for and supply of electricity in summer and winter

Demand forecasts constitute information that serves as a starting point for evaluations of the balance between demand and supply, public calls for balancing capacity, and the capacity market scheme. Since the accuracy, basis, and transparency of such forecasts are essential, we will continue to improve demand forecasts by analyzing data, conducting interviews, and researching the literature as concerns demand forecasts and the economy. In addition to that, we will analyze and evaluate changes in socioeconomic structures while measures against COVID-19 have been developed and will incorporate our findings into future demand forecasts. As a way to evaluate and monitor the balance of demand and supply upon verification of demand and supply as a process contributing to the decisions on the national government's request to conserve electricity, we will consider evaluation methods within fiscal year 2022 as a target period by considering the convertibility with evaluation of the expected unserved energy on supply plans as well (hereinafter "EUE evaluation"). As for verification and monitoring of demand and supply in terms of kilowatt hours, we will deepen our consideration of risks of fluctuation of both demand and supply by taking the review of actual energy supply (kWh) in fiscal year 2021 into account and will make a way to evaluate more sophisticated.

(3) Grand design for the development of next-generation networks

(i) Master plan

As for a long-term policy for a cross-regional electric network (hereinafter "Master Plan") based on the Act of Partial Revision of the Electricity Business Act and Other Acts for

Establishing Resilient and Sustainable Electricity Supply Systems (Act no. 49, 2020) and the Sixth energy master plan (cabinet decision on October 22, 2021), we will proceed with the work by aiming for completion of a draft within fiscal year 2022. In fiscal year 2022, we will draw up the Master Plan by reflecting a more elaborated scenario analysis that includes enhancement of the functionality of the cost-evaluation method by reflecting adequacy of benefits and reflection of demand-side measures of demand boost when renewable energy is over-generated from an interim review of the Master Plan compiled in May 2021.

(ii) Rules related to the use of electric networks

In order to maintain balance between prompt interconnection of new power sources, such as renewable energy, and a decrease in the costs necessary for development and maintenance of electricity networks, we will prepare guidelines for the start of full-scale application of the N-1 output shedding system and amend rules and regulations along with the application of non-firm access targeting at local systems, pertaining to "Japanese Connect & Manage," which is a scheme to utilize the existent grid facilities effectively. In fiscal year 2022, subject to S+3E, we will also implement all possible measures to prepare a redispatch system that utilizes regulated power supply as a method to manage grid congestion for minimization of power generation costs, then we will amend the rules and regulations necessary for the introduction of a redispatch system for all power sources, which is scheduled thereafter.

(iii) Cross-regional electric network development plan

In order to realize steadily the development of an environment for cross-regional trading of electricity and the stable power supply, we will periodically check the state of construction progress of the cross-regional electric network development plan currently under way (interconnection facilities between Hokkaido and Honshu (Japanese main island), interconnection lines between Tohoku and Tokyo, and interconnection facilities between Tokyo and the Chubu area) and will verify the validity of the costs of network development and the efforts toward cost savings from the perspective of reducing the allocated cost on the public associated with network development. As for the enforcement measures for interconnection lines that are being considered for actualization at an early stage upon an interim review of the Master Plan, we will determine the necessity of the start of the planning process, and based on that decision, we will evaluate the feasibility and consider in detail the size of enforcement and the starting time of operation from the perspective of a stable supply and cost reduction pertaining to the enhancement measures for the interconnection lines for which we decided to start the process. Furthermore, as the profits from price difference at JEPX will be transferred from April

in 2022, we will address such transfer properly.

(iv) Mechanisms supporting the master plan

We will check, in cooperation with the national government, whether the facility maintenance plans prepared by general transmission and distribution companies are in accordance with the guidelines for updating aging facilities toward the first regulation phase of the new consignment charge system. In addition, we will work on an update of coefficient values and other matters through accumulation and management of failure data toward the second regulation phase. Furthermore, we will establish a scheme for the development plan to take shape by aiming at the formation of facilities with a push-type approach based on the actual trend of development of power sources in accordance with the Master Plan so as to avoid the inefficient formation of facilities.

(4) Efficient access operations

For the prompt interconnection of new power sources, we will confirm that the procedure and operation of the collective review process of power source connection projects are conducted properly and will instruct general transmission and distribution companies to proceed with the process without delay. Meanwhile, the Organization will coordinate the collective review process (process in conjunction with public calls only for offshore wind power [revised in August 2021], including a replacement process) in line with the start of non-firm access targeting at local electrical networks and implement the necessary measures. As for an access review case received by the Organization, we will respond without delay while keeping the proper business quality through proper confirmation of the validity from a professional viewpoint. Furthermore, we will address issues regarding business on electric network access while accurately grasping the trend of rules on the use of networks from a perspective of more close cooperation with companies.

(5) Reviewing grid codes

Development of appropriate grid codes with a focus on the large-scale adoption of renewable energy will not only stabilize the grid but also possibly increase the volume of electricity derived from renewable energy sources with a view to making renewable energy a primary source of power. In this connection, we will work for the time being with a view to studying the Technical Requirements (measures to mitigate frequency fluctuation or measures against voltage fluctuation) that Need to be Mandated as Requirements in the Short Term (expected to be applied by April 2023) for the realization of an energy mix by fiscal year 2030.

In fiscal year 2022, we will deliberate the particular contents for revision of the technical requirements of network interconnections and will discuss ways to coordinate the relative rules and regulations as concerns the Technical Requirements (measures

to mitigate frequency fluctuation or measures against voltage fluctuation) that Need to be Mandated as Requirements in the Short Term (expected to be applied by April 2023) for which a review was completed in fiscal year 2021. Along with that, we will select the items to be reviewed by considering the situation of energy master plan, overseas trends, and the concept of network operation as concerns the Technical Requirements that Need to be Mandated as Requirements in the Medium Term (expected to be applied around 2025) and the long term (expected to be applied around 2030).

1-2. Provision of relevant information and liaise and coordination with respect to the services for electricity transmission and distribution, etc. (Item8 of the Paragraph 1, Article 28-40 of the Act)

(1) Management of Interconnection Lines between Regions

In order to complete the development of an environment for ~~supply-demand~~ balancing market schemes and cross-regional supply-demand adjustments inclusive of primary balancing capacity by fiscal year 2024, we have upgraded the cross-regional organization system so as to review the addition of tertiary balancing capacity [1] (replacement reserve) and [2] (replacement reserve for FIT generators) to commodities and the measures to manage the use of interconnection lines by such tertiary balancing capacities in fiscal year 2021. The current plan is to add the primary balancing capacity and the secondary balancing capacity to commodities by fiscal year 2024; therefore, we will work on the following in fiscal year 2022 to complete the necessary system development by fiscal year 2023.

By making use of the experience of system problems upon introduction of the tertiary balancing capacity [2] in fiscal year 2021, we will attempt to strengthen the response system, including a review of confirmation structure for developmental items and the full-scale confirmation and evaluation of the presence of influence on markets after starting the system operation, in addition to the conventional system development structure.

We will proceed with review of operational issues and contents of the upgrade of the cross-regional organization system for the accommodation of primary balancing capacity (frequency containment reserve) and secondary balancing capacity (frequency restoration reserve) to be added to commodities for the balancing market scheme in fiscal year 2024.

In order to prepare for the full-scale operation of cross-regional supply-demand

adjustment in fiscal year 2024, we will confirm the proper conduct of cross-reginal supply-demand adjustment in tertiary balancing capacity and will promote the cross-regional utilization of balancing capacity through evaluation of the actual reserved amount of balancing capacity and the actual amount of power flowing through interconnection lines. In addition to the introduction of a cross-regional reserve margin for cross-regional supply-demand adjustment operation, we will work on the following in fiscal year 2022 so as to address the mechanism for levying imbalance charges to be adopted from fiscal year 2022.

- Along with the introduction of the new mechanism for levying imbalance charges to be adopted from fiscal year 2022, a cross-regional reserve margin will become an index for stable power supply, and an index for calculation of adjusted charge will become an index for imbalance charges; therefore, we will ensure smooth calculation and publication of the cross-regional reserve margin and the index for calculation of adjusted charge.

In addition, we will carry out the following operations:

- Managing plans for transitional measures and accepting and reviewing applications for approved power sources

We will accept and periodically review new and changed applications for approved power sources in response to reviews of the rules governing the use of interconnection lines conducted for the realization of cross-regional merit orders (introduction of indirect auctions). Likewise, with respect to plans for transitional measures that were introduced as provisional measures until fiscal year 2025, we will accept and manage applications for the delisting of issues and periodically review those plans to assess whether bidding conduct is being carried out in accordance with the purpose of the system. We will encourage the remediation of any inappropriate conduct that is discovered.

- Calculating and publicly announcing the operational capacity of and margin values for interconnection lines

In order to enable electric network users to make maximum use of the electric power infrastructure constituting the social infrastructure, we will calculate and publicly announce limits for interconnection lines that can be operated upon ensuring the reliability of the supply of electricity and margin values needed to supply electricity in the event of abnormalities and procure cross-regional balancing capacity.

Given the need to evaluate and confirm the stability of the electric network in setting the operating capacity of interconnection lines, we will endeavor to improve the operational quality through the analysis of the power flow performed with electric network analysis tools in order to help facilitate highly reliable management and will

work on the expansion of the use of interconnection lines.

(2) Coordination of Maintenance Work Plans

While the long-term scheduled maintenance work is expected to increase because of the systematic update of existing distribution facilities to fortify the power transmission and distribution networks, it is necessary to strike a balance between the proper maintenance of distribution and power supply facilities and the securing of power supply capacity upon long-term scheduled maintenance work; therefore, we will promote the coordination of interests among companies and realize comprehensively optimal maintenance work coordination.

Specifically, we will compile plans concerning the scheduled maintenance work of the cross-regional interconnection network in yearly, monthly, unplanned, and emergency contexts, coordinate with respect to scheduled maintenance plans for power facilities that affect the operational capacity total transfer capability of interconnection lines by considering the changes in supply structure attributed to increase of renewable energy, such as solar power, and publicly announce the scheduled maintenance plans at the appropriate time.

The current plan is to introduce within 2022 a redispatch system that coordinates the power flow with regulated power supply upon congestion without enhancing the existent distribution facilities upon interconnection of new power sources. In response to this, we will reorganize the concept of handling upon network congestion accompanying the maintenance work of transmission and distribution facilities concerning networks to which the redispatch system is introduced

(3) Review of the Balancing Capacity and Necessary Reserve Capacity

Stable supply on a daily basis is maintained through the ensuring of a proper supply reserve capacity, the ensuring of a balancing capacity for frequency control, and margin operations applied to interconnection lines by general transmission and distribution companies, and through such ensuring of the proper amounts of capacities and operations, electricity rates and the risk of blackouts are both being reduced. We calculate the accurate required amount of supply reserve capacity and balancing capacity by analyzing data concerning, among other factors, the present state of power supply operations. We also review the required amount in line with changes in circumstances such as transition of the way of procurement of balancing capacity from public call for balancing capacity to a supply-demand balancing market schemes, the opening of capacity market schemes and the current supply-demand trend. we will engage in the following initiatives in fiscal year 2022.

・ We will look into the balancing capacity needed for supply-demand balance

adjustments and frequency control and the reserve capacity required to maintain the reliability of the supply of electricity based on changes in such circumstances as those concerning the introduction of the capacity and balancing market schemes. We will also look into the balancing capacity needed for supply-demand balance adjustments and frequency control by the first half of 2022 based on the schedule of public calls for balancing capacity for fiscal year 2023 made by general transmission and distribution companies. If necessary, we will look into the reserve capacity required to maintain the reliability of the supply of electricity based on a supply plan for fiscal year 2022 and capacity market auctions for fiscal year 2026.

- With a view to making renewable energy a primary power source, we will review the balancing capacity and required reserve capacity through analysis of data concerning the state of power source operations through the development of evaluation methods of the necessary amount of balancing capacity and inertial power, the way to procure them, and the required reserve capacity and reliability of its supply, and through the development of calculation tools.
- We will analyze the result of management of excess margin in kilowatt hours conducted in fiscal year 2021 by considering the tight supply-demand balance during winter in fiscal year 2020 and will establish a more sophisticated system and its operational measure of supply-demand monitoring business by improving the management measure of excess margin in kilowatt hours, including a revision of kinds of data to be collected and duration of such collection.

In addition to that, compatible realization of decarbonized society and stable power supply will be led by an advanced preparation through forecasts of the supply reserve capacity and balancing capacity (including balancing capacity for frequency control, inertial power, synchronizing capacity, and voltage balancing capacity) that will be required in future toward conversion of renewable energy into a primary power source. Therefore, we will forecast future situations of power demand and supply from forecasts of the future demand, the capacities of facilities for renewable energy, and other matters, then will draw up proper measures, a procurement method of future power sources and an environment development policy. In fiscal year 2022, we will estimate the necessary amount of future balancing capacity and inertial power after analyzing data concerning the state of power source operations, etc. and will proceed with a review of procurement methods and operation management methods.

(4) Balancing Market

Upon proceeding with conversion of renewable energy into a primary power source, general transmission and distribution companies will, by securing a stable supply of

electricity on a daily basis and the quality of electricity, contribute to stable operations by companies who buy and sell electricity and realize an environment where consumers can purchase electricity with peace of mind. Through an improvement in the efficiency of supply and demand adjustments by widening the areas of procurement and operations of the balancing capacity that will be required to this end, an improvement in transparency through the adoption of market mechanisms and mechanisms for securing balancing capacity that encompass DR (demand response) companies and new power companies, we will build a competitive environment and rationalize and reduce the costs of procuring and operating balancing capacity so that this will benefit all companies and consumers who utilize the electric network system.

With the aim of establishing a balancing market scheme to serve as a platform for efficiently procuring a balancing capacity, we have subdivided balancing capacity into five commodities and brought together detailed system designs for each of these products. In the future, we will make preparations related to opening a market of primary balancing capacity and secondary balancing capacities [1] and [2] in fiscal year 2024 and will pursue required detailed system design work based on trading conditions of tertiary balancing capacity [1] and [2] of which markets have been already opened.

Therefore, the following initiatives will be implemented in fiscal year 2022:

- Proceed with preparations related to primary and secondary balancing capacities [1] and [2] for opening a market in fiscal year 2024.
- Monitor the trading conditions of tertiary balancing capacities [1] and [2] of which markets have been already opened and proceed with consideration regarding a review of the necessary rules depending on the situations and then proceed with consideration toward optimization of the necessary amount of balancing capacities that include an improvement in the accuracy of weather forecasts and joint procurement.

(5) Supplier Switching Support for Customers

We will restructure procedures and switching support system by the end of fiscal year 2022 by taking the result of a review of fiscal year 2021 with a focus on the timing for replacing the power distribution business system and switching support system in order to enable consumers to select electricity as it is possible to do in other advanced industrial categories.

(6) Network Information Disclosure

We will disclose information on cross-regional interconnection lines and nationwide electricity supply and demand on our website in accordance with the Guidelines on Network Information Disclosure (revised in September 2021) as defined by the government.

(7) Streamlining the development of and maintenance management for the cross-regional organization system

We will start operation of all electricity commodities for the supply-demand balancing market in line with the opening of capacity market scheme that will start from fiscal year 2024 and then complete the upgrading of the cross-regional organization system by fiscal year 2027 with a focus on reinforcing the Sakuma frequency conversion facility (FC) and Higashi Shimizu FC in fiscal year 2028 from the standpoint of making maximum use of new and augmented interconnection lines and promoting cross-regional operations inclusive of electricity transactions through interconnection lines. Therefore, we will implement the following initiatives.:

For development of existing systems, we will address the system changes that are under consideration for the years after fiscal year 2024 and develop the systems so as to streamline their operation. As particular efforts in fiscal year 2022, we will improve the system for registration of capacities to cross-regional interconnection lines that will start to handle the primary and the secondary balancing capacities [1] and [2] from fiscal year 2024 similarly with the existent commodities in the supply-demand balancing market. In addition to that, we will consider the system improvement as necessary for new structures and matters about which rules were reviewed.

Because we have improved the system repeatedly since the start of operation in 2016, functions and compositions of the system became complicated and such complication started to have influence on additional development or operation and maintenance. Because the introduction of capacity market and supply-demand balancing market schemes will end by fiscal yar 2024, and the maintenance of the system will become impossible both from the tangible and intangible aspects in fiscal year 2030, we will consider system replacement so that we can start the replacement in a full-scale from fiscal year 2024. As particular initiatives in fiscal year 2022, we will review the structure from tangible and intangible aspects with a view to reducing costs and improving functions and proceed with detailed consideration inclusive of the evaluation of feasibility from technical aspect so as to contribute to decisions on the launch of development. At the same time, we will conduct a survey of case studies that relate to other companies and technical surveys, then define the necessary requirements, including with respect to a development roadmap.

As for operation and maintenance of the existent systems, we will maintain normal operation of existing cross-regional organization systems based on the consideration of system replacement while mitigating unnecessary changes of equipment and will manage maintenance work and the maintenance of performance.

We will carry out initiatives to improve efficiency by having costs as well as maintenance management reviewed by the assistant CIO (system development expert) and having the appropriateness of the scope of systemization confirmed by a panel of experts prior to system development while we take fitness for purpose in terms of system development into sufficient account.

2. Securing a medium- to long-term supply capacity for the stable supply of electricity

In order to realize the stable supply of electricity, as the market administrator of the capacity market scheme, we will stabilize electricity transaction prices and yield various consumer benefits, such as stable operations by electric power companies, the stabilization of electricity rates, and a reduction in the risk of blackouts over the medium to long term by evaluation of supply-demand balance through securing of medium to long term supply capacity and through supply plans.

2-1. Business regarding solicitation of persons who keep and operate electrical facilities for power generation through safeguard and other measures for generator procurement and regarding promotion of installment of other electrical facilities for power generation (Item 5 of the Paragraph 1, Article 28-40 of the Act)

(1) Detailed design and operations of the capacity market scheme

With a focus on fiscal year 2024, which will constitute the first fiscal year for the practical implementation of the capacity market scheme, we will carry out preparations of incremental auctions where needed (in fiscal year 2023), assessment, invoice, delivery, verification (in fiscal year 2024) and others, by conducting capacity verification test and adjustment through scheduled maintenance. In order to conduct annual main auctions, we will facilitate smooth market operations as the market administrator of the capacity market scheme and undertake a necessary detailed system study.

In this connection, the following initiatives will be carried out in fiscal year 2022:

- A necessary detailed system study and the incorporation of findings into market rules will be pursued based on other system designs and discussions held after the main auction is conducted.
- We will develop efficient operating frameworks and systems to facilitate the smooth conducting of main auctions in and after current fiscal year. We will continuously proceed with the development of systems, etc. by taking the fitness for purpose and the efficiency into account.
- As for the actual supply and demand operations (assessment, invoice and delivery) to be commenced in fiscal year 2024, We will pursue a detailed system study and the

development of operating frameworks and systems and will steadily carry out the operations preceding actual supply and demand operations prior thereto (such as capacity verification test and scheduled maintenance of generating facility subject to the capacity contract).

・We will endeavor to transmit information to businesses and the public to promote understanding of the system related to the capacity market scheme.

(2) Evaluating the balance of supply and demand through supply plans and examining the need for power supply bidding

We will compile data that will become a basis for evaluation of national supply-demand balance through compilation of supply plans and will consider the need for measures to address supply capacity by carrying out EUE reliability evaluations, and evaluations of demand reliability under extremely hot or cold weather conditions. When the supply capacity is required, we will work on particular measures immediately.

As for the measures for supply capacity, adjustment by the Organization of the timing of the repair of generators and public calls for supply capacity by general transmission and distribution companies were conducted in fiscal year 2021. In fiscal year 2022, we will develop the basic framework required prior to the actual launch of measures for supply capacity so that the measures of bidding for power sources can be carried out smoothly when such measures are needed in future.

3. Monitoring of demand and supply situation of electricity (Item 1 of the Paragraph 1, Article 28-40 of the Act)

(1) Monitoring the Situations of Supply and Demand of Electricity

We will issue appropriate instructions and requests upon the worsening of the situation with respect to supply and demand by operating a twenty-four-hour-a-day, 365-day-a-year system for the monitoring and management of the state of securing of supply capacity based on demand plans submitted by members, the state of supply capacity, such as in terms of demand in supply zones and the state of the operations of key power plants on the day of operations, and the state of the operations of interconnection lines connecting supply zones to one another.

For correctness of the various plans to be submitted in light of Network Codes of the Organization, we will implement checking for consistency among multiple plans and the balance between plan and actual energy (imbalance energy), and properly call for attention to the electric power companies. In particular, we will recommend and instruct improvement as needed to the electric power companies who repeatedly submits inconsistent plans or significant clearings of imbalanced energy. To the company who has

already been given instructions, we will selectively check the imbalanced energy of the companies so as to confirm the improvement of their business.

(2) Operational Measures against Major Blackout Risk

From the standpoint of reducing the risk of large-scale blackouts and shortening the time required to recover from a blackout whenever a large-scale blackout occurs, we will study the standards and concepts needed for the foregoing in collaboration with general transmission and distribution companies and, where necessary, endeavor to review the written procedures of general transmission and distribution companies. Specifically, we will sort out our thinking concerning appropriate load interruptions in cross-regional interconnection networks (avoidance of blackout by load interruptions across the whole synchronized area) and arrange grid-separation measures (selection of points of grid-separation and a decision method of separation [avoid separation in a case blackout does not occur]) in order to avoid wide-area blackouts even when large-scale disasters strike. We will consider ideal black start functions that will be required for recovering from a wide-area blackout by assuming the future construction and abolition of facilities and other matters.

4. Instructions to members when supply and demand situations become worse (Item 2 of the Paragraph 1, Article 28-40 of the Act)

We will make supply and demand adjustments on a nationwide scale to ensure the stable supply of electricity both during normal times and in the event of an emergency. Specifically, if the state of supply and demand for a member were to worsen because of a disaster or power supply issue, we would issue instructions for the accommodation of supply and demand tightness in order to improve the supply and demand situation while also taking market utilization into account. In addition, if there is a surplus of supply capacity relative to demand in a supply area due to an increased output of renewable energy, we will make long-cycle cross-regional frequency control in accordance with the Network Codes. Since cross-regional supply and demand adjustments will be deployed in full swing from fiscal year 2022 based on cross-regional reserve margin, we will establish a secure system and an operational method so that supply and demand adjustments can be smoothly made not only under normal condition but also when supply and demand tightness is experienced.

Furthermore, in the event that a general transmission and distribution company applies output control to renewable energy for the purpose of maintaining a balance between supply and demand, we will confirm the number of times constraints were applied during the year after the end of each fiscal year and disclose the results thereof in accordance

with the Guidelines for Ensuring Fairness of Output Control from the standpoint of the question of "whether constraints on renewable energy were fairly implemented from the perspective of the power generation operator" in light of the Enforcement Regulations for the Act on Special Measures Concerning the Procurement of Renewable Energy Sourced Electricity (Ordinance of the Ministry of Economy, Trade and Industry, No. 46, 2012), the Guidelines for Ensuring the Fairness of Output Controls (revised in April 2021), and Guidelines on Power Transmission and Distribution Operations by Cross-Regional Organizations (revised in July 2021).

5. Delivery business pertaining to FIT and FIP/Appropriate management of reserve funds for the cost of abolition of solar panel (Item 8-2, Paragraph 1 of Article 28-40 and Item 8-3 of the Act)

Fair and equal correspondence to many companies and management of unconventionally huge amount of funds as well as verification (external audit) on business executions are required as concerns the "Delivery of subsidies related to FIT scheme," "Delivery of premiums related to FIP scheme," and "Management of reserve funds for the cost of disposition of solar panel" to be added as businesses of the Organization from April 2022 in accordance with the Act of Partial Revision of the Electricity Business Act and Other Acts for Establishing Resilient and Sustainable Electricity Supply Systems (Act no. 49, 2020). Therefore, the following initiatives will be implemented by taking into consideration efficient business operation during and from the next fiscal year while focusing on establishment of proper structure and recruitment in this fiscal year (year to start business).

- Secure start of operation of new system (renewable energy business integration system) and the smooth launch and execution of business through improvement necessary for a review of the structure of the existent system (FIT system: transferred from Green Investment Promotion Organization)
- Proper handling of management of the huge amount of funds and segment accounting related to FIT and FIP schemes and establishment of structures for efficient business operation from the next fiscal year
- Dissemination of information on the schemes and procedures required for companies to enhance understanding of companies and development and operation of the schemes for proper correspondence to companies
- Enhancement of cooperation structure with the national government so as to address immediately and accurately to revision of structures or other issues

6. Handling of complaints or inquiries from the electricity supply companies and conflict resolution (Item 7 of the Paragraph 1, Article 28-40 of the Act)

(1) Handling of Complaints or Inquiries

When a request or consultation pertaining to a complaint or dispute concerning the transmission or distribution of electricity or otherwise about our operations is received from an electricity supply company, we will promptly respond and otherwise implement the initial measures in order to minimize the opportunity loss for the company and endeavor to resolve the matter as soon as possible by organizing the points in dispute and proposing solutions based on each company's request.

Even where further action is needed in a situation where a resolution could not be reached with the implementation of initial measures, we will endeavor to resolve issues by implementing the necessary measures, such as by utilizing alternative procedures for resolving disputes or otherwise issuing guidance or recommendations to the electricity supply company.

In order to improve the operations of electricity supply companies as based on Network Codes and other rules, we will periodically compile the requests and consultations tied to complaints and disclose and widely disseminate cases on our website in hopes of expanding business opportunities for companies.

(2) Conflict Resolution

To resolve conflicts between electricity supply companies regarding the electricity transmission and distribution business, approved as a dispute resolution institution based on the Act on Promotion of Use of Alternative Dispute Resolution (Act no. 151, 2004), we mediate reconciliation (mediation and arbitration) by establishing a conflict resolution panel comprising academic experts and lawyers other than personnel of the Organization.

7. Instructions and recommendation for electricity supply companies (Item 6 of the Paragraph 1, Article 28-40 of the Act)

We give instructions or make recommendations to electricity supply companies when it is necessary to secure smooth conduct of business such as transmission and distribution or stable supply of electricity according to the Operational Rules.

8. Incidental operations as provided for in 1 through 6 above and disaster response-related operations (item 9 of paragraph 1 of Article 28-40 of the Act, item 4-2 of paragraph 1 of Article 28-40 of the Act, and paragraph 2 of Article 28-40 of the Act)

(1) Preparation and Publication of Reports

We will analyze information collected by the Organization and information provided by members on the state of the supply of and demand for electricity and the electric network system and accordingly compile and release a report that offers information beneficial to stakeholders. In fiscal year 2022, we will prepare and release reports in accordance with the Operational Rules as concerns the following: the supply of and demand for electricity (including an evaluation and analysis of the quality of electricity in terms of frequency, voltage, and blackouts for each supply area), the state of the electric network system, the performance of grid access operations, an outlook on the issues concerning the supply of and demand for electricity and the state of the electric network system for the next fiscal year and over the medium to long term, and an evaluation and verification and, if necessary, a review of the appropriate levels of reserve capacity and balancing capacity in each supply area.

In addition to that, in order to enhance the function of collection and transition of information, we will organize data recorded on respective report as data collection so that it can be utilized for data analysis.

(2) Investigation and Research

We will conduct research and studies on technical trends concerning the electricity business, institutional policies, and other matters. We will aim to build two-way ties with overseas organizations over the medium to long term based in part on the results of verification carried out by the National Council.

(3) Response to Disasters, etc.

In an emergency, we will endeavor to communicate and coordinate closely with the national government to prepare for the occurrence of large-scale disasters, which have become increasingly severe in recent years, and tight supply-demand balance under a response system in accordance with the Operational Rules and an emergency disaster action plan and reinforce our ties and commitment to working with the country's disaster-prevention operations.

During normal times, we will continue to engage in disaster-response drills in order to fortify our ability to respond to disasters, and we will hold response drills for staff members, inclusive of operation confirmation actions for a system at our backup operations base in Osaka and confirm the effectiveness of support service for planning of transfer and lodging of staff to ensure that we will be able to carry out priority continuity operations in accordance with a business continuity plan in the event that the occurrence of a disaster were to cause our facility or any member of our headquarter to sustain damage or injuries, then consider the development of additional backup basis and develop them if necessary.

Furthermore, we will enhance our ability for preparing for contingencies as we are a designated public corporation based on Act on Special Measures Concerning Novel Influenza Virus (Act no. 31, 2012), and Act concerning the Measures for Protection of the People in Armed Attack Situations (Act no. 112, 2004).
We will also take the necessary actions when a disaster coordination plan is submitted by a member constituting a general power transmission and distribution company (Item 4-2 of Paragraph 1 of Article 28-40), and will set the total amounts of contributions and the amount of funding requirement to mutual aid system for the disaster recovery costs which will be burdened and collected across the nation, claim for contribution, accept applications for the mutual aid system, define the amount of subsidies and grant subsidies.

9. Business necessary to accomplish aims of the Organization (Item 10 of the Paragraph 1, Article 28-40 of the Act)

(1) Public Information

We will endeavor to proactively disseminate information and enhance and reinforce public relations concerning our operations and the cross-regional operations of the electricity business in order to increase the transparency of our operations and gain the understanding of society, not to mention the members.
Besides, we introduce our business correctly and clearly through response to the press.

(2) Security Measures for Information System

In our operations as carried out to facilitate the stable supply of electric power and in our collaborations with electric power companies, we will enhance information security and cybersecurity measures implemented by the Organization and electric power companies and reduce the occurrence of security incidents that can induce large-scale blackouts to zero in order to enable consumers to use electric power at low costs and with peace of mind.
In fiscal year 2022, we will enhance the precautions against cyberattacks and promote drills and education regarding the attacks by considering that handling of subsidies for renewable energy will be started.

(3) Securing and Education of Personnel

With respect to the securing of personnel, we will increase the ratio of staff hired by the Organization over the medium to long term by hiring recent graduates with a high ceiling and human resources with specialized knowledge while we seek at all times to secure personnel required for the precise performance of operations. Regarding the development of staff, we will endeavor to enhance the skills of professional staff members.

In fiscal year 2022, we will deploy measures to increase opportunities to hire mid-career personnel and aim to achieve a rate of employees loaned out to major electric power companies of 54% as of the end of fiscal year 2022. As for the education of personnel, we will improve their skills through training for new employees, internal and external training based on OJT, as well as external loan to the relating governmental agency or electric power companies for younger staff members. Furthermore, we will enhance the training for human resource development based on instructions from the National Council.

(4) Development of organizational management structure along with functional enhancement

From fiscal year 2022, huge amount of money will be handled as the business related to FIT and FIP schemes will start. We will develop organizational structure required to this end inclusive of fund management, fund operation, and segment accounting.

As a significant increase of the number of staff is expected along with functional enhancement, we will secure necessary business space. In addition to that, we will provide staff with proper business environment by taking the convenience of access into account for coordination with persons concerned and for efficient meeting of committees.

(5) Monitoring based on internal audits

We will conduct internal audits with a focus on the neutrality and fairness of operations, the appropriateness of financial reporting, and the appropriateness of the management of documents and information to assess whether our operations are being properly carried out in accordance with the relevant laws and regulations. In this connection, information security will be subject to auditing by an outside party given that our information systems are of high societal importance, thus necessitating the expertise and objectivity of a third party.

In addition to that, as management business of huge amount of funds of subsidies for FIT and FIP schemes is expected to increase, we will conduct an audit with a focus on adequacy of accounting and fund management related to new business.

(6) Additional Business

We will respond in a timely and suitable manner in the event that we are called upon to carry out certain operations based on the implementation of various system revisions under investigation by the government and on the results of verification actions undertaken in response to supply and demand tightness.

10. Establishment and amendment of Network Codes (Item 3 of the Paragraph 1, Article 28-40 of the Act)

We will proceed with investigation of the revision of the Articles of Organization, Operational Rules, and Network Codes to address properly to various system revisions under consideration by the national government.