Business Plan FY 2021 of Organization for Cross-regional Coordination of Transmission Operators, Japan

In Fiscal Year 2021, 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 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 transitioning to next-generation networks that will help make renewable energy a primary power source in 5 to 10 years and boost the resilience of electric power and achieving carbon neutrality by 2050:

- Establish ways of building up grid facilities and using electric network systems in order to realize a society in which renewable energy is a primary power source
- Even as renewable energy becomes a primary power source and the composition of power sources changes, a framework to enable the balance of supply and demand to be appropriately assessed shall be developed to ensure that excess facilities are not maintained and that the stable supply of electricity is not threatened from the standpoint of controlling the risk of blackouts
- Demand forecasts will be made 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

New supply reliability assessments will be deepened with a focus on future changes to the composition of power sources. 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, make adjustments to improve supply capacity, look into the necessity of power source bidding, 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. Through periodic evaluations as set forth in a master plan, we will collect information on potential future sources of power and harness this information to help build up facilities with a focus on transitioning to next-generation networks.

(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 it is essential that such forecasts are accurate, explicatory, and transparent, we will continue to improve demand forecasts by analyzing data, conducting interviews, and researching the literature as concerns demand forecasts and the economy. Based on medium- to long-term changes in socioeconomic structures due to the global outbreak of COVID-19, we will analyze and evaluate the impact of factors on demand forecasts and incorporate our findings into future demand forecasts. For the verification of demand and supply as a process contributing to decisions on whether a study on power source bidding needs to begin and to the national government's request to conserve electricity, we will look into and determine the applicability of the probabilistic approach in fiscal year 2021 as a way to evaluate the balance of supply and demand.

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

(i) Master plan

From the standpoint of ensuring consistency with the Japanese government's mediumto long-term energy policy and reducing the burden imposed on the people, we will investigate and organize mechanisms for making determinations concerning the reinforcement of electric networks in accordance with a cost-benefit assessment. Accordingly, we will formulate a long-term policy for a cross-regional electric network that includes a presentation of the ideal form of a cross-regional interconnection network, the orientation of initiatives for the realization thereof, and a long-term outlook for the specific electric networks that will need to be reinforced in the future.

(ii) Rules related to the use of electric networks

In order to develop mechanisms to enable the minimization of generation costs and the effective use of renewable energy, we will ascertain the issues that should be addressed for the introduction of non-firm access and develop relevant rules to facilitate the effective use of existing grid facilities and the connection of new power sources, such as renewable energy, as soon as possible. In addition, we will promote Connect & Manage, study the settlement of costs pertaining to the N-1 electricity system in detail, produce guidelines, and amend rules and regulations.

(iii) Cross-regional electric network development plan

In addition to the current requirements for commencing an investigation into the development of an environment for cross-regional transactions, a specific bolstering plan based on periodic evaluations of cross-regional interconnection networks using costbenefit evaluations in the master plan shall be formulated as a cross-regional electric network development plan. For the implementation plan produced by the principal project operator, we will evaluate and verify electric network stability and costs to improve the reliability of the plan. For the cross-regional electric network development plan for Hokkaido-Honshu cross-regional interconnection facilities, Tohoku-Tokyo cross-regional interconnection lines, and Tokyo-Chubu cross-regional interconnection lines), we will periodically check the state of construction progress and verify costs while keeping the need to reduce the burden on the public in mind.

(iv) Mechanisms supporting the master plan

For power distribution facilities that are undergoing superannuation, we will produce guidelines setting forth standard methods based on the assessment of risks in order to build mechanisms to enable necessary facilities to be appropriately upgraded. Mechanisms in the master plan for periodically assessing the need to bolster the grid will also be established.

(4) Efficient access operations

In order to engage in the systemic formation of facilities with a push-type approach while taking the potential of renewable energy-based power sources into account, we will, in accordance with the commencement of a collective review process, ascertain and ameliorate issues concerning this review process in conjunction with a public solicitation process for offshore wind power.

To help companies make appropriate business decisions, we respond to companies after conducting appropriate evaluations of the validity of draft responses prepared by general transmission and distribution companies in accordance with prescribed regulations and guidelines as concerns access review cases that we receive. We will continue to maintain the objectivity of responses as well as continue to check the quality of system impact study to improve the reliability of the accommodation of interconnection by companies. In order to assess and confirm whether a review of electric network access operations has been appropriately conducted, we will establish an analytical method to allow the Organization to verify whether general transmission and distribution companies are appropriately conducting reviews from an objective standpoint in access review cases not received by the Organization since a system to allow the Organization to ascertain access review responses was established in April 2020.

(5) Reviewing grid codes

As the adoption of naturally variable renewable energy increases, the importance of thermal power generation, which offers control functions and flexibility for naturally variable renewable energy, is rising. In addition, we will realize a low-carbon society and reduce blackout risks in Japan, a country highly prone to natural disasters, by bolstering the resilience of the entire grid, a process that should include the introduction of renewable energy sources that are highly dispersible and resilient to natural disasters, while taking into account costs and other considerations.

Given these circumstances, the Sub-Committee on the Large-Scale Adoption of Renewable Energy and Next-Generation Power Networks and Working Group on Electricity Resilience have determined that they will study the development of grid codes. The 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, the following initiatives will for now be implemented in fiscal year 2021 in order to study the Technical Requirements 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 order to achieve both the rationalization of renewable energy output control and the stable supply of electricity with a view to introducing renewable energy options on a large scale and in order to implement solutions to ensure frequency and voltage balancing capacity and an ability to deal with grid accidents and disturbances while taking cost-effectiveness and fairness into account, we will study grid codes with a focus on Technical Requirements that Need to be Mandated as Requirements in the Short Term (expected to be applied by April 2023).

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

Based on the completion of the development of an environment for cross-regional supplydemand adjustments, inclusive of primary balancing capacity, in 2024, we will finish the development of required systems by 2023 and carry out the following initiatives in fiscal year 2021 in order to complete the development of mechanisms for evaluating the appropriateness of cross-regional supply-demand adjustments:

- In fiscal year 2021, we will upgrade the cross-regional organization system for the accommodation of tertiary balancing capacity (1) to be added to products for the balancing market scheme in fiscal year 2022.
- We will evaluate the amount of power flowing through interconnection lines to check whether cross-regional supply-demand adjustments are being appropriately made in response to the deployment of the cross-regional supply-demand adjustment system in all areas from fiscal year 2021.

In addition, given that the mechanism for levying imbalance charges will be changed in 2022, we will calculate the cross-regional reserve margin that constitutes the basis for calculating the imbalance charge and evaluate the validity thereof. The following initiatives will also be carried out in fiscal year 2021 in order to complete the development of a mechanism for publicly disclosing cross-regional reserve margins for each gate closure before the end of fiscal year 2021:

- Given that there is a need to ascertain the supply capacity through interconnection lines to estimate the supply capacity for each area in order to calculate cross-regional reserve margins, we will review the method by which the estimated amount of power flowing through interconnection lines is calculated and develop calculation tools for this purpose before the end of fiscal year 2021.
- We will analyze the need to review numerical standards for cross-regional reserve margins when we transition to measures for additional supply capacity under the management of cross-regional reserve margins and evaluate actual results pertaining to the correlation with current reserve margins that reflect a judgment of instructions for the accommodation of supply and demand tightness.
- Given that the imbalance charge system will start in fiscal year 2022, we will upgrade the cross-regional organization system before the end of fiscal year 2021 in order to enable information on cross-regional reserve margins to be publicly disclosed on a timely basis.

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 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 to be introduced as provisional measures by fiscal year 2025, we will accept and manage applications for the delisting of issues and periodically review these 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 electric power infrastructure constituting 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 receive 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 operational quality through the analysis of power flow performed with electric network analysis tools in order to help facilitate highly reliable management.

(2) Coordination of Maintenance Work Plans

Amid the need to strike a balance with the need to maintain distribution and power supply facilities as existing facilities are systematically updated to fortify the power transmission and distribution network, we will realize comprehensively optimal scheduled maintenance work coordination by promoting the coordination of interests among companies.

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 of interconnection lines, and publicly announce scheduled maintenance plans at an appropriate time.

At the same time, given that coordination based on a capacity scheduled maintenance

work plan two years before the actual supply and demand operations for the capacity market scheme to be commenced in fiscal year 2024 will begin in fiscal year 2022, we will revise the manual for coordinating the scheduled maintenance plan and scheduled maintenance plan procedures in order to ensure that the capacity scheduled maintenance plan and scheduled maintenance work plan are aligned before the end of fiscal year 2021.

We will also engage in discussions on the use of the grid based on the assumption of grid congestion and otherwise study specific responses with a focus on other system and environmental changes.

(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 by general transmission and distribution companies, the ensuring of a balancing capacity for frequency control, and margin operations applied to interconnection lines. The required amount of each shall be calculated by analyzing data concerning, among other factors, the present state of power supply operations. These are presently procured through a public call for procurement capacity and will in the future be procured through a framework consisting of the capacity and balancing market schemes. Thus, electricity rates and the risk of blackouts are both being reduced.

With a view to making renewable energy a primary power source, appropriate measures for and necessary amounts of the necessary reserve capacity and balancing capacity (including balancing capacity for frequency control, inertial power, synchronizing capacity, and voltage balancing capacity) will be calculated by assuming the future state of the demand for and supply of electricity based on actual data on the demand for and supply of electricity. We will formulate the methods by which these will be procured and the policies governing environmental development. This will lead to both the realization of a low-carbon society and the stable supply of electricity with a view to making renewable energy a primary power source. In addition to activities undertaken to date as outlined above, we will engage in the following initiatives in fiscal year 2021 in response to the need to investigate based on various changes in circumstances:

• 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 2021 based on the schedule of public calls for balancing capacity for fiscal year 2022 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 by the end of fiscal year 2022 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 look into the analysis of data concerning the state of power source operations, the necessary amount of balancing capacity and method by which it is procured, the way required reserve capacity and the reliability of its supply is evaluated, and balancing capacity and required reserve capacity through the development of calculation tools.

Primary reviews to be conducted with a view to making renewable energy a primary power source will be pursued by the first half of fiscal year 2021.

(4) Balancing Market

As renewable energy will constitute a primary energy source, general electric transmission and distribution companies will, by securing a stable supply of electricity on a daily basis and the quality of electricity, realize an environment conducive to stable operations by companies that buy and sell electricity and the use of electricity by consumers with peace of mind. With respect to the procurement and operations of the balancing capacity that will be required to this end, the costs of procuring and operating balancing capacity will be rationalized and reduced by improving the efficiency of supply and demand adjustments across a wider area and transparency through the adoption of market mechanisms as well as by building a competitive environment through mechanisms for securing balancing capacity that encompass DR (demand response) companies and new power companies, among others. 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 products and brought together detailed system designs for each of these products. In the future, we will make preparations related to tertiary balancing capacity (1) with a view to opening a market and will pursue required detailed system design work with the aim of opening markets for the remaining primary balancing capacity and secondary balancing capacity (1), (2) in fiscal year 2024.

Therefore, the following initiatives will be implemented in fiscal year 2021:

- Complete preparations related to tertiary balancing capacity (1) for opening a market in fiscal year 2022.
- We will proceed with a detailed study of the technical requirements for the primary balancing capacity and secondary balancing capacity (1), (2), simultaneous contracting of multiple products, and assessment methods, including matters related

to storage batteries, DR, and other new resources, with reference made to overseas cases in which initiatives are underway.

(5) Supplier Switching Support for Customers

We will restructure procedures and systems by the end of fiscal year 2022 with a focus on the timing for replacing the power distribution business system and structure in order to enable consumers to smoothly select electricity as it is possible to do in other advanced industrial categories. In fiscal year 2021, we will hold a working-level conference to determine a policy on opinions to date concerning the review of the method by which the identity of consumers is verified.

(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 as defined by the government.

(7) Streamlining the development of and maintenance management for the crossregional organization system

We will 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.

We will also engage in the following initiatives in order to complete the transition to a society in which new types of companies, including specified wholesale suppliers that operate by aggregating small-scale power sources (aggregators) are able to emerge by around fiscal year 2030:

- Since registration procedures under the cross-regional organization system and work to submit plans could become complicated as more new types of companies, such as specified wholesale suppliers, enter the market, we will upgrade the system in part to improve functions for the simplification of such procedures and work.
- With the aim of transitioning to a system that can accommodate the emergence of many new types of companies and substantial system changes that will be implemented in the future, we will launch a study on the replacement of the next system to be carried out no earlier than fiscal year 2024 when significant system reforms encompassing the capacity market scheme will have fallen into place.

Since the cross-regional organization system plays important roles in such terms as the submission of plans, the disclosure of network information, and the management and monitoring of interconnection lines under the planned value balancing rule, we will maintain normal operations of the cross-regional organization system.

Initiatives pertaining to the development of and maintenance management for the crossregional organization system in fiscal year 2021 will be as follows:

- We will upgrade the system to avoid operational errors by eliminating older unnecessary functions and information pertaining to the Hida-Shinano FC, which is slated to begin operations in fiscal year 2020.
- We will continue to administer questionnaires on the need for improved functions to existing companies and, where necessary, upgrade the system upon carefully examining improvement items corresponding to new types of companies.
- We will conduct a survey of case studies that relate to other companies and technical surveys that can be used as reference materials when requirements for and the feasibility of the next system are studied to define the necessary requirements, including with respect to a development roadmap. We will then upgrade the system, inclusive of functional improvements to accommodate new types of companies.
- We will manage maintenance work and the maintenance of performance as they pertain to the cross-regional organization system.
- We will carry out initiatives to improve efficiency by having costs 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

Securing a medium- to long-term supply capacity for the stable supply of electricity 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 of the risk of blackouts over the medium to long term.

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, such as

by conducting capacity verification test and scheduled maintenance of generating facility subject to the capacity contract (in fiscal year 2022) and incremental auctions where needed (in fiscal year 2023). In order to also thereafter conduct annual main auctions in and after fiscal year 2021, 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 2021:

- A necessary detailed system study and the incorporation of findings into market rules will be pursued based on discussions held after the main auction for fiscal year 2020 is conducted.
- We will develop efficient operating frameworks and systems to facilitate the smooth conducting of main auctions in and after fiscal year 2021.
- We will pursue a detailed system study and the development of operating frameworks and systems for the actual supply and demand operations to be commenced in fiscal year 2024 and 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.

In developing the system, we will promote cost-reduction measures through competitive bids at the same time by taking into account the suitability and efficiency thereof for the goals in question and clarifying the scope of development.

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

New supply reliability assessments will be deepened with a focus on future changes to the composition of power sources. 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, closure, and decommissioning of power sources and transmission lines, make adjustments to improve supply capacity, look into the necessity of power source bidding, 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. In order to realize the provision of diversified forms of supply capacity, we will finalize a supply plan format to have an environment conducive to participation by specified wholesale suppliers and power distribution companies as electric power companies. At the same time, we will look into new items for the collection and ascertainment of information needed to evaluate plans to upgrade aging facilities and endeavor to coordinate with the revenue cap system slated to be introduced in fiscal year 2023. From fiscal year 2024, we will investigate supply plans by taking into account the securing of necessary supply capacity through the capacity market scheme.

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-hour-a-day, 365-day-a-year system for the monitoring and management of the state of the 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 the consistency among multiple plans and the balance between plan and actual energy (imbalance energy), and properly call for attention to the electric power companies. Particularly, 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 have been already given instruction, 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 and arrange grid-separation measures in order to avoid wide-area blackouts even when large-scale disasters strike. In addition, we will reduce the risk of a delay in work carried out to recover from a wide-area blackout and arrange measures to further shorten the time required to recover.

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 due to 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 controls in accordance with the Network Codes. Since cross-regional supply and demand adjustments will be deployed on a company-wide basis, we will establish a system and operational method to make sure that supply and demand improvements are made even where cross-regional supply and demand adjustments cannot be smoothly made when supply and demand tightness is experienced.

Furthermore, in the event that a general transmission and distribution company applies output shedding 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 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, the Guidelines for Ensuring the Fairness of Output Controls, and Guidelines on Power Transmission and Distribution Operations by Cross-Regional Organizations.

5. 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 our operations is received from an electricity supply company, we will promptly respond and otherwise take 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 taking 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, we mediate reconciliation (mediation and arbitration) by establishing a conflict resolution panel comprised of academic experts and lawyers other than personnel of the Organization.

6. 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.

7. 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 2021, 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 of and 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.

(2) Investigation and Research

We will conduct research that contributes to the study of the capacity market scheme, balancing market scheme, facility formation, power supply connections, grid utilization rules, balancing capacity, and supply-demand balance evaluations and conduct research and studies on technical trends concerning the electricity business, institutional policies, and risk analysis concerning the supply of and demand for electricity in Japan and overseas. In fiscal year 2021, we will fortify the collection of overseas information, including by way of having the President make, in principle, two visits to overseas organizations with a view to building 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, under an emergency communication system and disaster response system established in accordance with an emergency disaster action plan and reinforce our ties and commitment to working with the country's disaster-prevention operations. At the same time, during normal times, we will continue to engage in disaster-response drills in order to fortify our ability to respond to disasters and enhance the effectiveness of a business continuity plan (BCP) that has been drafted to ensure that we will be able to carry out priority continuity operations in accordance with this plan in the event that the occurrence of a disaster were to cause our facility or any member of our workforce to sustain damage or injuries.

In addition, we will hold response drills for staff members, inclusive of system operation confirmation actions, in order to ensure that grid monitoring and other important operations can be properly performed at our backup operations base in Osaka in preparation for the unlikely event that our main base in Tokyo is rendered unavailable due to a disaster and will also study and make necessary upgrades for the further development of our backup base.

Furthermore, we will cooperate with relevant government offices, and positively participate in information exchange meetings or training so that the ability for preparing for contingencies is enhanced based on each developed business plan as we are a designated public corporation based on Act on Special Measures Concerning Novel Influenza Virus, etc., and Act concerning the Measures for Protection of the People in Armed Attack Situations, etc.

We will also take necessary actions when a disaster coordination plan is submitted by a member constituting a general power transmission and distribution company (item 4-2,

paragraph 1, Article 28-40).

We will accept applications for the mutual aid system and grant subsidies to cover and recover disaster recovery costs nationwide (paragraph 1, Article 28-40).

8. 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, including electric power companies.

In fiscal year 2021, we will update our website and improve its convenience in terms of satisfying the purpose to which it is used by users through a focus on ease of viewing and ease of understanding. Moreover, surveys will be periodically administered to gauge user satisfaction, collect feedback, and make necessary revisions.

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 2021, we will hold education classes and drills and enhance confidentiality in preparation for the Olympics and Paralympics games and complete the process of replacing elements of information infrastructure belonging to cross-regional organizations that have sought to improve integrity and availability through operational reforms in such areas as digitalization and teleworking arrangements.

(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 2021, we will deploy measures to increase opportunities to hire mid-career personnel and aim to achieve a rate of employees loaned out from major electric power

companies of 55% as of the end of fiscal year 2021 (3% less than the rate as of the end of fiscal year 2019). As for the education of personnel, we will provide personnel with the necessary knowledge for the business and improve their skill through the training for new employees, internal and external training, and support for self-development while being based on OJT, as well as external loan to the relating governmental agency or electric power companies for younger staffs.

(4) New operations

Pursuant to the Act on the Partial Revision of the Electricity Business Act and other Acts for Establishing Resilient and Sustainable Electricity Supply Systems, which was enacted in June 2020, the following operations are to be added to the tasks we perform:

- Confirm a disaster coordination plan produced by a general transmission and distribution company
- · Operate a mutual aid system for the coverage of disaster recovery costs
- Formulate and submit to the national government cross-regional electric network development plans and grant subsidies under the renewable energy levy program to partially cover the costs of developing inter-regional interconnection lines as set forth in these plans
- · Grant subsidies related to the feed-in-tariff (FIT) scheme for renewable energy
- · Grant premiums related to the FIT scheme that will be introduced at this time
- · Manage the reserve fund set up to cover the costs of the disposition of solar panels

In order to properly perform these operations, we will develop, in fiscal year 2021, a system to fully facilitate the transition to the FIT scheme that will take place in fiscal year 2022 and the launching of the FIP scheme. To this end, we will not only secure personnel but also work to fortify accounting matters, information systems, and auditing functions given that we will especially need to handle substantial sums of money, separate accounting, and the migration of multiple systems.

In order to enable these operations to commence in fiscal year 2022, we will study the system for these new operations in conjunction with the designing of these operations in fiscal year 2021 and prepare for the commencement of actual operations.

We will reinforce the system for accounting operations, such as with respect to the hiring of highly skilled accounting personnel, in order to manage large amounts of funds, including subsidies related to the FIT and FIP schemes. In order to determine the scope and timing of the introduction of external audits by which third parties will objectively verify whether funds are being appropriately managed, we will put together a system for the execution of new operations, work on designing operations, and evaluate internal controls and risks related to the foregoing. As the current base becomes smaller with the increase in personnel required to prepare for operations to come into effect in fiscal year 2022, we will open a new operational base for which convenience in terms of access is taken into account in order to facilitate smoother coordination with concerned parties and allow meetings of committees to be efficiently held.

(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.

(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.

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

We will proceed with our investigation on amending the Articles of Organization, Operational Rules, and Network Codes in accordance with amendments made to the Electricity Business Act and the studies conducted by the National Council. Specifically, we will develop rules regarding the following with the aim of having them come into force by April 2022 in order to accommodate new systems and operations:

- · Establish power distribution companies and specified wholesale supply companies
- Issue a premium related to the FIP scheme
- Manage a reserve fund to cover the costs incurred in disposing of solar power generation facilities