

Business Plan in F.Y.2016 of
Organization for Cross-regional Coordination of Transmission Operators,
Japan

Organization for Cross-regional Coordination of Transmission Operators, Japan, as specified in Article 28-4 of the Electricity Business Act (hereinafter, “the Act”) started its business on April 1, 2015, with an aim to enforce cross-regional coordination in the first phase of the reform of electricity business presented in the national Policy on Electricity System Reform (Cabinet decision on April 2, 2013).

In F.Y.2016, the second phase of the reform, full liberalization of retail market and relevant systems will start. While we fully prepare the basic system for such reform, we will also carry out the following business to address social demands regarding cross-regional coordination of electricity supply for operation of electricity business including the securing of stable supply as before and greater introduction of renewable energy.

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

The Organization will promote understanding of the Network Codes and grasp the actual business situation so that the members and other users of electric system are able to operate their business smoothly based on the rules of the Network Codes. Based on the results of such actions, we will constantly review the necessity of further amendments of the rules.

2. Aggregation, review and submission of electricity supply plans to the Minister of Economy, Trade and Industry (Item 4, Article 28-40 of the Act)

(1) Aggregation of electricity supply plans

While the supply plan has been drastically changing following the review of the business segment (or introduction of business license system), along with full liberalization of retail market in April 2016, we will evaluate demand-supply balance, draw a plan on establishment of distribution facilities and accurately grasp situations of cross-regional operation after receiving supply plans from electric power companies based on laws and ordinances. As for the compiled supply plans, we will submit them with comments, if any, to the Minister of Economy, Trade and Industry by the end of June 2016.

(2) Business regarding demand forecast

For smooth and proper demand forecast by the members, we will prepare a nationwide economic forecast that will become the premise for a demand forecast. We will also develop a nationwide demand forecast based on the demand forecast of each regional

service area submitted from the members who are General Transmission and Distribution Companies. As for the nationwide economic forecast, we will notify the members and publish by the end of November 2016. As for the nationwide demand forecast, we will notify the members and publish together with demand forecast of each regional service area by the end of January 2017.

3. 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, Article 28-40 of the Act)

We will set up a committee of intellectuals to contribute to the decision-making for the necessity of safeguard measures for generator procurement, and will conduct comprehensive reviews by considering the evaluation of demand-supply balance based on the result of aggregated supply plans, trend of potential supply capacity, degree of vitalization of electricity market, and middle-and-long term demand trend. When we find that the safeguard measures for generator procurement is deemed to be necessary as a result of the reviews, we will promote actions to secure supply capacity in accordance with the Operational Rules.

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

(1) Long-term development policy of cross-regional interconnection network and a Cross-regional network development plan

With the object of cross-regional coordination of electricity, the Organization will proceed with drawing-up of the long-term development policy of the cross-regional interconnection network and a cross-regional network development plan to achieve its progressive functions for establishment of rational facilities for future cross-regional interconnection network. In order to implement such an object, we will continuously review the plans in Cross-regional Network Development Committee

For drawing up the long-term policy of the cross-regional interconnection network, we have compiled the standard guidelines that specify the directions of the drawing-up of the long term guideline in F.Y.2015 for the drawing-up of the long term guideline (long term policy of the cross-regional network), which specifies the directions of development and updating of the nationwide cross-regional interconnection network. In F.Y.2016, we will continuously proceed with reviewing along with the compiled direction, while

considering the middle-and-long term forecasts of demand and supply, new generating facilities installation plans, integration of renewable energies, and information on aging of existing facilities by aiming at completion of the drawing-up of the long-term policy of the cross-regional network within this year.

(2) Reception of network access

We will be open to applications of preliminary system impact study and system impact study from anyone who seek for network interconnection with generators, and properly confirm, verify, and report the results of study from its neutral position where we have no interest with the relevant business entities. When we conduct business, we will respond thoroughly to the applicants for network interconnection, provide adequate information, and improve network access business with the general transmission and distribution companies.

In addition to that, we will promote smooth procedures under which several applicants for network interconnection will share construction expenditures to enhance the network (a process of solicitation for connection of generation facilities) for ensuring compatibility between the reduction of the cost burden on the applicants for network interconnection and establishment of efficient facilities.

Furthermore, we will proceed with preparation of application summary of smooth business operations for application process of network interconnection upon replacement of large generators.

(3) Review of the Balancing Capacity

We will continuously review the Balancing Capacity necessary to adjust the balance between supply and demand, and the control of the frequency, which has not been reviewed for a long time. In particular, we will collect and analyze data on the actual imbalance between demand and supply due to errors in the demand forecast and of forecasts of output from renewable energy sources, while considering the change of situations, such as full liberalization of retail market and increases in renewable energy integration and the measures to respond to major disasters and rare accidents, so as to reveal the necessary amount of the Balancing Capacity.

(4) Management of interconnection lines between regions

To promote cross-regional coordination of electricity, we will manage the interconnection lines between regions, including management of liaison and coordination related to cross-regional electricity trading, securing of transfer capability for a long term, and congestion management.

As for the Total Transfer Capability and the Margin of interconnection lines, we will calculate and publish them based on the results of discussions at the working group held

by secretariat and of the collected opinions. As for a contract regarding a long-term capacity securing for interconnection lines certified in the previous fiscal year and as for a utilization plan of interconnection lines, we will examine the validity of them and will improve awareness of each of the companies on proper utilization of interconnection lines by notifying them of differences between the plans and actual situations and issue the necessary instructions. Furthermore, we will improve effectiveness of business and convenience for the network users by utilizing the newly introduced cross-regional organization system.

(5) Coordination of maintenance work plans

We will coordinate plans on maintenance work of transmission, distribution and generation facilities that members submit to carry out work, such as inspection and maintenance (hereinafter “maintenance work plans”)and compile the plans for maintenance work on cross-regional interconnection network.

For coordination and compiling of the plans, we will utilize the newly introduced cross-regional organization system and share information with relevant companies, and will also cooperate properly with General Transmission and Distribution Companies that maintain and operate the network and users of interconnection lines while considering the maintenance of electric facilities, security of workers, and other matters provided in the Network Codes.

(6) Supplier switching support for users

We will operate and maintain the supplier switching support system to facilitate procedures for changes in the network service contracts between Retail Company and General Transmission and Distribution Companies.

By succeeding the result of the working group for support system for switching established after inauguration of the cross-regional organization, we will regularly hold an Officials Meeting on Operation of the Switching Support System (provisional name) to review the points to be improved in respect of operation of the system to be operated from the start of full liberalization of retail market, and its additional functions and operating rules and will publish the result of summary of the discussion at the meeting.

(7) Support for utilization of information communication technology

We will conduct necessary reviews on the standard specification for mutual data exchange among network users or with the Organization utilizing the information technology by considering the business situations of companies. We will also review the above mentioned standard specification as needed, based on contents of The Basic Policy of Critical Information Infrastructure Protection, and will encourage actions by members by conducting activities for dissemination and enlightenment and by providing members

with information about the vulnerability of the information system in respect of information leaks and damage from cyber-attacks outside the Organization in a timely manner so that members can implement proper cyber-security measures.

(8) Network Information Disclosure

In accordance with the Guidelines on Network Information Disclosure defined by the Government, we will publish information on interconnection lines between regions and nationwide supply and demand of electricity of its internet website to secure transparency of grid operation.

We also enrich the contents to be published with the newly introduced cross-regional organization system which enables collection of detailed information on the cross-regional interconnection network.

(9) Improvement of business quality

We will make efforts to improve the quality of business related to drawing-up of a cross-regional network development plan, verification of inspection results of network access, management of interconnection lines among regions, and others through analysis of power flows conducted by ourselves with simulation analysis tool.

(10) Smooth implementation of system development

We will make efforts to stably operate the cross-regional organization system and the switching support system and proceed with preparation for any changes of the systems so as to respond to the system changes from the following fiscal year without delay.

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

We will monitor the situations of supply and demand of electricity related to electricity business by members based on the various plans submitted by members through the cross-regional organization system and data regarding demand in each regional service area and power flow and supply capacity of interconnection lines (including situations of operation and suspension of main power plants). To respond to the full operation of the cross-regional organization system and to coordinate more closely with relative companies such as General Transmission and Distribution Companies, we will increase the number of staff on duty at the cross-regional operation center from two to four for each group.

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

To secure a stable supply even in cases of disasters and problems with the power supply,

we give instructions to the members necessary for improvement of the situation of demand and supply of electricity, if demand and supply situations of the members became or might become worse.

For issuing instructions, we will develop a business flow by considering the fact that new Generation Companies will be members and that the an hour-ahead market will open at JEPX after introduction of business license system and will respond immediately by utilizing the cross-regional organization system.

When the ability to reduce power supply in the regional service area becomes insufficient due to greater integration of renewable energy or other reasons, and when the General Transmission and Distribution Companies restrain the output of renewable energy, we will conduct post-verification whether such restrain was appropriate and publish the result.

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

(1) Handling of complaints or inquiries

When we receive complaints or inquiries regarding our business operation, such as transmission and distribution of electricity from electricity supply companies, we take initial steps of giving responses according to the contents of complaints or inquiries without delay.

If such complaints or inquiries are not dissolved with the initial steps and further measures are needed, we will take the necessary measures of mediation of reconciliation (mediation and arbitration) and giving instructions or warnings to electricity supply companies and will strive to settle the problems.

We also compile, investigate, and verify the contents of complaints and inquiries on a regular basis and publish to disseminate the results on its website so as to promote business improvement of members and other network users according to rules, such as Network Codes.

(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 comprised of academic experts and lawyers other than personnel of the Organization.

8. Instructions and recommendation for electricity supply companies (Item 6, 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.

9. Ancillary business to aforementioned Item 1 to 8 (Item 9, Article 28-40 of the Act)

(1) Preparation and publication of reports

According to the Operational Rules, we compile and publish reports on the forecast and agenda of the mid- and long-term demand and supply of electricity and network development (including forecasted mitigation of constraints on network interconnection with power generation facilities) based on performance up to the preceding year in respect of the demand and supply of electricity (frequency fluctuation, voltage fluctuation, supply disturbances, and risk factors of each supply area), actual network utilization, and network access.

(2) Investigation and research

The Organization conducts investigations of matters contributing to the review of the Committee on Reserve Margin and the Cross-Regional Network Development Committee, investigations to respond to the changes of system along with three-phase reform, and investigations and research on technical trends on national and international electricity business, system policy, risk analysis of demand, and supply of electricity.

(3) Response to disasters, etc.

In an emergency, such as when significant damages are caused to electric facilities due to major natural disasters and other equivalent reasons, we will establish an emergency contact system and structures against disasters, issue the necessary information to the Government or other relevant institutions based on an operational plan for disaster prevention as a designated public corporation based on the Basic Act on Disaster Control Measures so that the members can tackle cooperated restoration and other work, and provide emergency response training more than once a year with the cooperation of members and relevant institutions.

We will also continuously review the necessity of revision of the Business Continuity Plan (BCP) to enhance effectiveness of the plan according to the cabinet's Business Continuity Guidelines in preparation for a case where the headquarters of the Organization is damaged by disasters.

Furthermore, we will take the necessary measures 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.

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

(1) Publication

To enhance the transparency of the business of the Organization and improve the convenience of business of the members and other electricity supply companies, we will make an effort to reinforce and enhance publication with regard to cross-regional coordination of our business and electricity business implementation. In particular, we will immediately publish information on business conducted by the Organization, such as instructions to members upon aggravation of demand and supply situations and also publish agenda and summary of proceedings of the board of directors, councilors, and committees in principle. Through utilization of the website we introduce our business clearly.

(2) Security measures for information system

We will take all possible precautions for cyber-security for each type of information system that we maintain and operate. In particular, we will prepare system protections such as countermeasures against computer viruses, unauthorized access, and vulnerability without omission and will conduct an independent information security audit and educate personnel regarding information security.

(3) Securing and maintenance of the base for back-up operation

We will check the operation of the system of the backup headquarters established in Osaka for emergency cases, such as when the headquarters in Tokyo become out of operation due to disasters, and will train the personnel so that important business of monitoring of network can be conducted at the base for backup operations.

(4) Securing and education of personnel

We will proceed with the hiring process of midcareer recruits with professional knowledge and new graduates in order to enhance the proper percentage of the personnel in a middle-and-long term perspective while maintaining the necessary number of personnel for our proper business at all times. 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.