

# **Financial Summary FY2019**

**( April 1, 2019 – March 31, 2020)**

---

**April 30, 2020**

 **Tohoku Electric Power Co., Inc.**

# Contents

## FY2019 Financial Results

Summary of Financial Results	....	1
Changing Factor of Consolidated Ordinary Income	....	2
(Reference) Time Lag between Fuel Cost and Fuel Cost Adjustment Charges	....	3
Electricity Supply	....	4
Electricity Sales	....	5
Major Factors and Sensitivity to Major Factors (Non-Consolidated)	....	6
Financial Forecast for FY2020	....	7

## Topics

Overview of the Tohoku Electric Power Group's Medium- to Long-Term Vision	....	8	Expansion of Renewable Energy Business	....	19
Changes in Our Business Environment —Major Shifts in Society and the Power Supply and Demand Structure	....	9	Active Promotion of Wholesale Electricity Sales	....	20
What We Want to Be in the 2030s	....	10	Highlight 2 of Fiscal 2020 Tohoku Electric Power Group's Medium-Term Plan	....	21
Quantitative Targets (Financial Goals)	....	11	Our Total Support for Living Yori, Sou, Chikara+ONE	....	22
Highlights of Fiscal 2020 Tohoku Electric Power Group's Medium-Term Plan	....	14	Initiatives to Increase Profits through Gas Sales	....	24
Highlight 1 of Fiscal 2020 Tohoku Electric Power Group's Medium-Term Plan	....	15	Initiatives for Realizing a Smart Society	....	25
Making Steady Efforts to Restart Nuclear Power Reactors	....	16	Highlight 3 of Fiscal 2020 Tohoku Electric Power Group's Medium-Term Plan	....	26
Status of Thermal Power Plants in the Power Development Plan	....	18	Enhancing Capability to Create Corporate Value with Focusing on ESG	....	27

## References

Financial Data	....	28
Other Reference Data	....	36

---

# **FY2019 Financial Results**

# Summary of Financial Results

- Electricity sales (retail) decreased due to the impact of intensified competition resulting from liberalization of retail electricity market. On the other hand, the amount of electricity (wholesale) sold outside Tohoku and Niigata area increased. As a result, operating revenue rose to ¥2,246.3 billion, a year on year increase of ¥2.0 billion or 0.1%.
- Ordinary income increased to ¥99.9 billion, an increase of ¥34.2 billion, or 52.1%. This was due to the fuel cost reduction effect by starting operation of Noshiro Thermal Power Plant No.3 and our efforts to further improve productivity and efficiency as our group of companies, as well as the impact of the time lag of the fuel cost adjustment system.
- Extraordinary losses of ¥6.1 billion were recorded, including expenses required to restore damaged equipment due to Typhoon No. 19. As a result, net income attributable to owners of the parent rose to ¥63.0 billion, an increase of ¥16.5 billion or 35.7%.

\* Operating revenue includes ¥495.9 billion, total of grant under act on purchase of renewable energy sourced electricity and surcharge for promoting renewable energy sourced electricity based on Feed-in Tariff Scheme for renewable energy and the self-contracted portion due to introduction of the indirect auction. As this is recorded in expenses as well, it does not affect the Company's income.

(billions of yen)

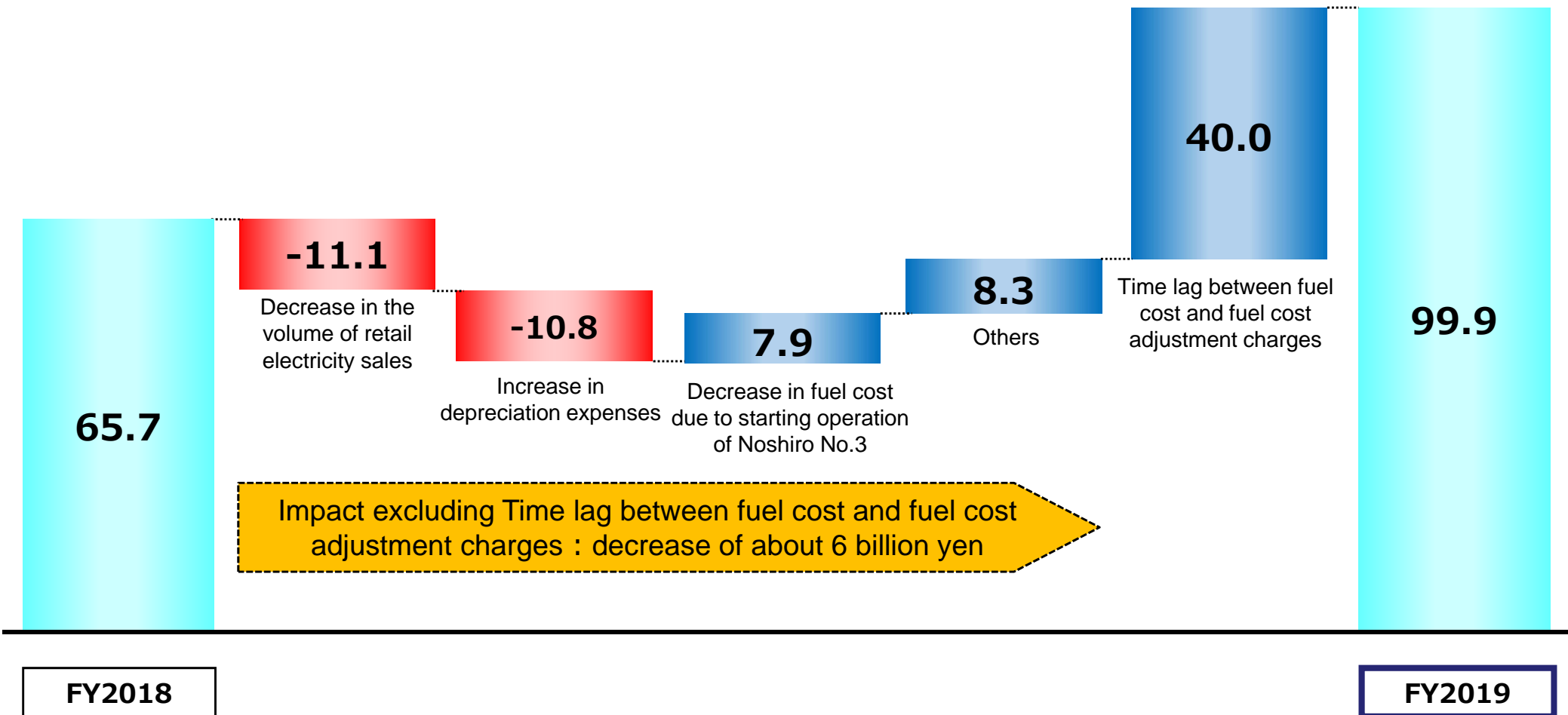
	Consolidated (A)			Non-consolidated (B)			(A) / (B) (times)	
	FY2019	FY2018	Change	FY2019	FY2018	Change	FY2019	FY2018
Operating Revenue	2,246.3	2,244.3	2.0	2,031.9	2,025.5	6.4	1.11	1.11
Operating Income	116.3	83.6	32.7	94.0	60.2	33.7	1.24	1.39
Ordinary Income	99.9	65.7	34.2	78.0	46.8	31.1	1.28	1.40
Net Income Attributable to Owners of Parent or Net Income	63.0	46.4	16.5	51.6	40.3	11.3	1.22	1.15

( Reference) Operating revenue \* excluding items recorded in both revenue and expense, and ordinary income excluding time lag between fuel cost and fuel cost adjustment charges

Operating Revenue	1,750.3	1,835.9	(85.5)	1,535.9	1,617.1	(81.1)
Ordinary Income	Aprox. 77.9	Aprox. 83.7	Aprox. (5.8)	Aprox. 56.0	Aprox. 64.8	Aprox. (8.9)

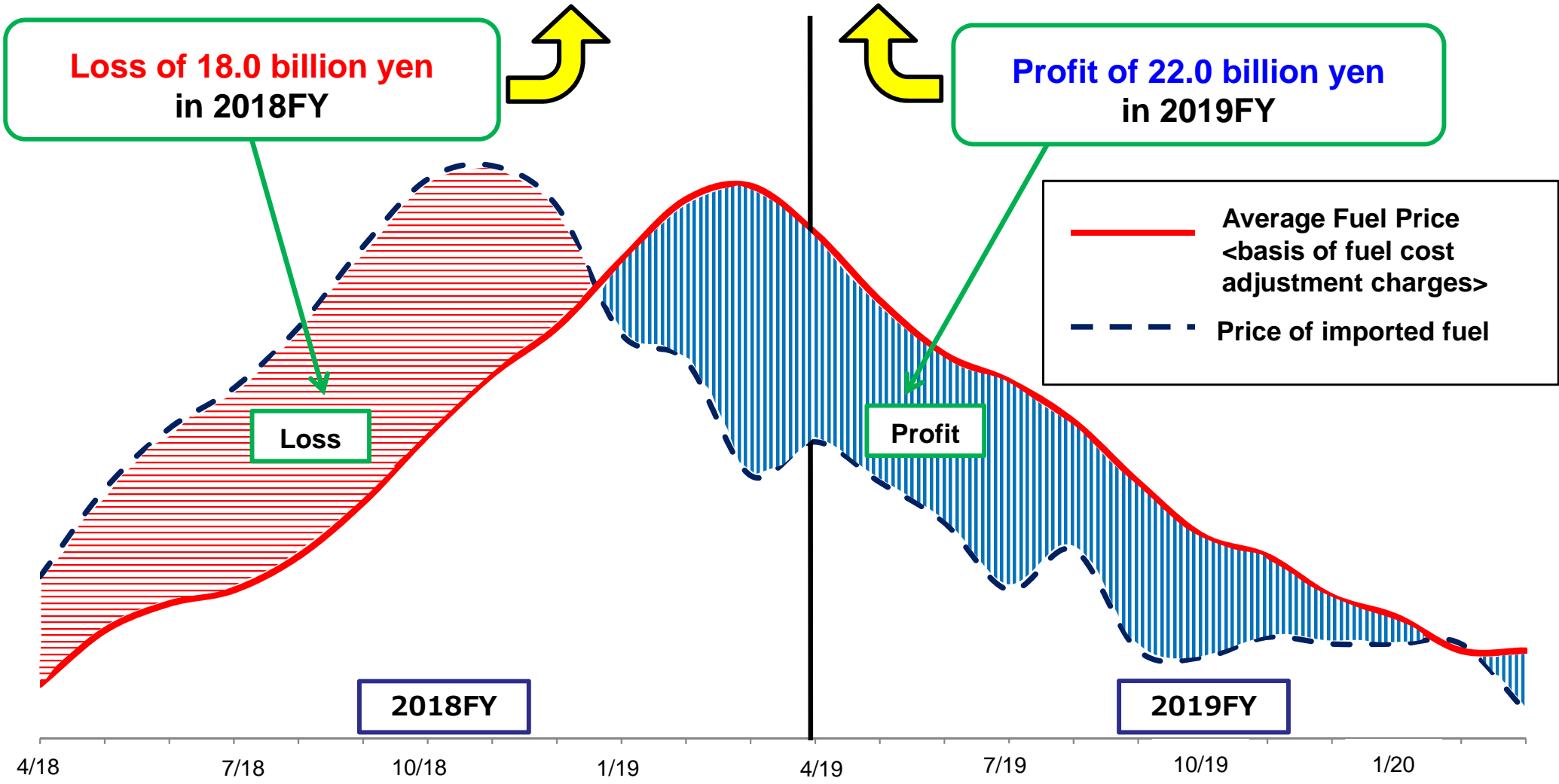
## Increase of 34.2 Billion Yen (65.7 → 99.9)

(billions of yen)



■ Image of Time Lag Effect

Income increased by about 40 billion yen compared to the previous year due to decreasing fuel price



# Electricity Supply

(GWh)

<b>Electricity Supply</b>	FY2019 (A)	FY2018 (B)	Change (A) - (B)	Change (A) / (B)
Own Generated Power* <sup>1</sup>	60,763	61,718	(955)	98.5%
Hydro	8,086	7,372	714	109.7%
Thermal	52,223	53,829	(1,606)	97.0%
Nuclear	(215)	(215)	(0)	100.2%
Renewables	670	732	(62)	91.6%
Power Interchanges and Purchased Power* <sup>2, 3</sup>	37,110	35,006	2,104	106.0%
	(6,393)	(6,821)	428	93.7%
Used at Pumped Storage	(79)	(92)	13	86.3%
<b>Total of Electricity Supply*<sup>2</sup></b>	<b>91,402</b>	<b>89,812</b>	<b>1,590</b>	<b>101.8%</b>

\*1 "Own Generated Power" shows sending end.

\*2 "Power Interchanges and Purchased Power" and "Total of Electricity Supply" partly include projected volume.

\*3 As for "Power Interchanges and Purchased Power", the top is Received and the bottom is Transmitted.

Received and Transmitted includes system operation etc.

# Electricity Sales

(GWh)

Electricity Sales	FY2019 (A)	FY2018 (B)	Change (A) - (B)	Change (A) / (B)
Lighting (Residential)	21,813	22,745	(932)	95.9%
Power	45,354	46,130	(776)	98.3%
Retail Electricity Sales	67,167	68,876	(1,709)	97.5%
Wholesale Electricity Sales*	17,652	16,220	1,432	108.8%
Total of Electricity Sales	84,819	85,096	(227)	99.7%

\* "Wholesale Electricity Sales" includes the volume of specified power interchange.



# Major Factors and Sensitivity to Major Factors (Non-consolidated)

<b>Major Factors</b>	FY2019 (A)	FY2018 (B)	Change (A) - (B)
Crude Oil CIF Price (\$/bbl.)	67.8	72.1	(4.3)
Exchange Rate (¥/\$)	109	111	(2)
Hydro Power Flow Rate (%)	100.2	90.5	9.7
Nuclear Power Utilization Rate (%)	-	-	-

(billions of yen)

<b>Sensitivity to Major Factors</b>	FY2019 (A)	FY2018 (B)	Change (A) - (B)
Crude Oil CIF Price (per \$1/bbl.)	2.6	3.3	(0.7)
Exchange Rate (per ¥1/\$)	3.0	3.5	(0.5)
Hydro Power Flow Rate (per 1%)	0.8	0.9	(0.1)
Nuclear Power Utilization Rate (per 1%)	0.8	1.2	(0.4)

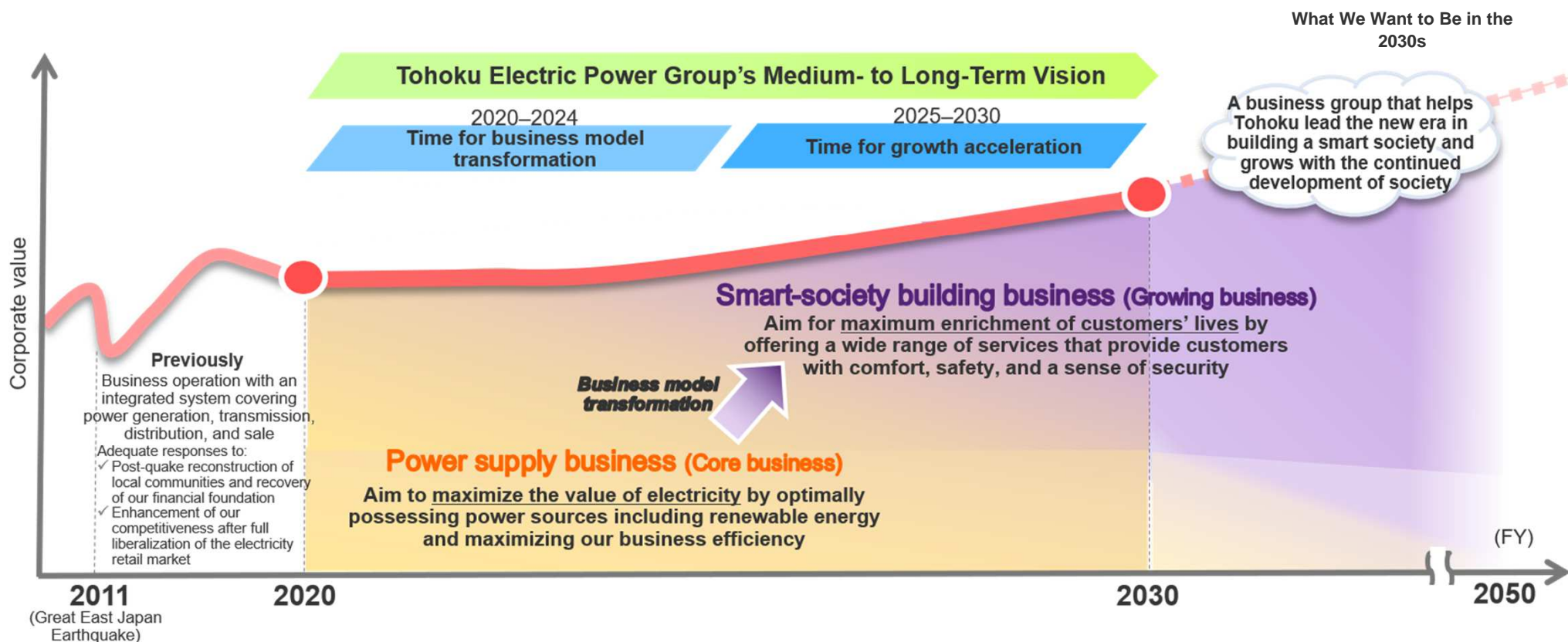
## 【Financial Forecasts for FY2020】

- Financial forecasts for the year ending March 31, 2020 have yet to be determined at this time, because the impact on the power demand resulting from the spread of COVID-19 is unclear and it is difficult to reasonably assess the estimates of income.
- These forecasts will be promptly disclosed as soon as certain conditions are met and we can reasonably assess the estimates.

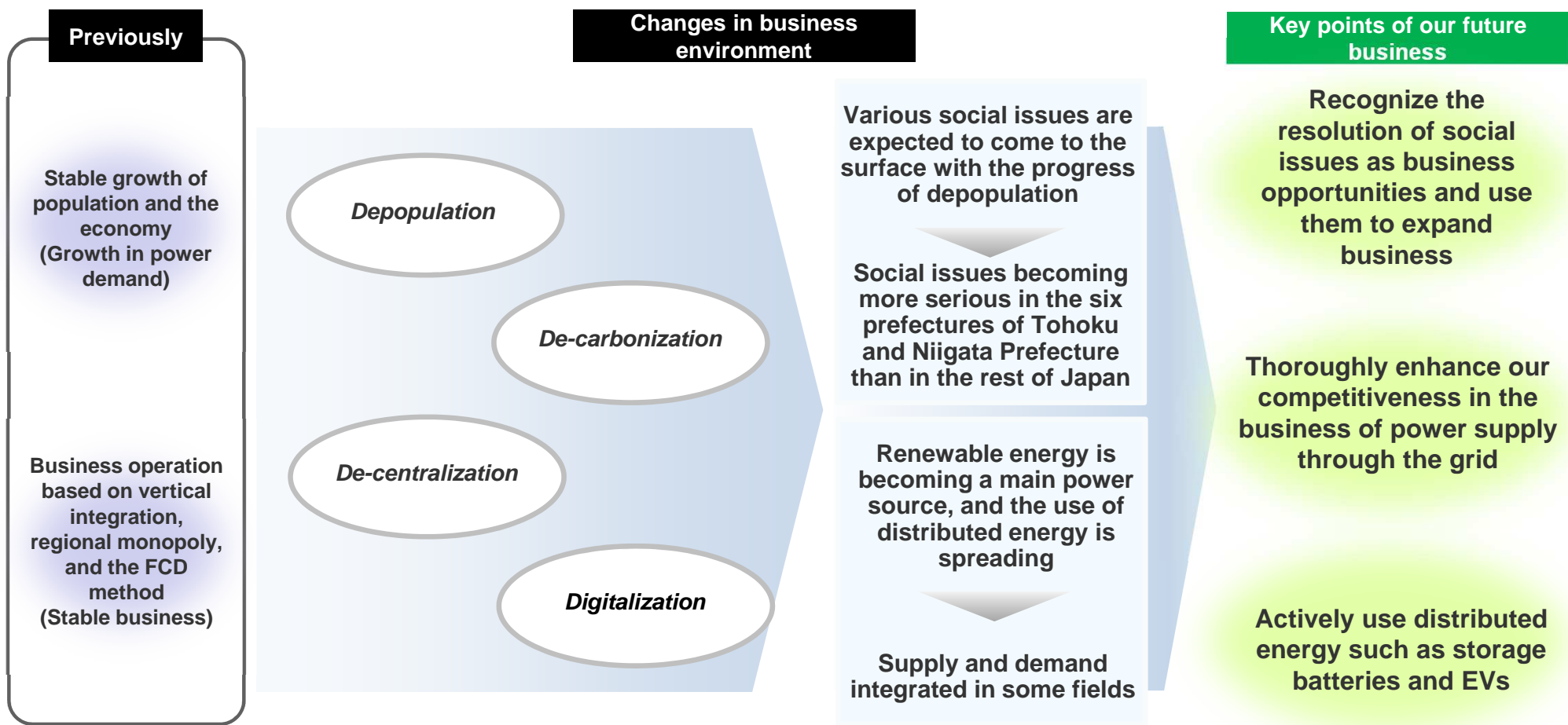
---

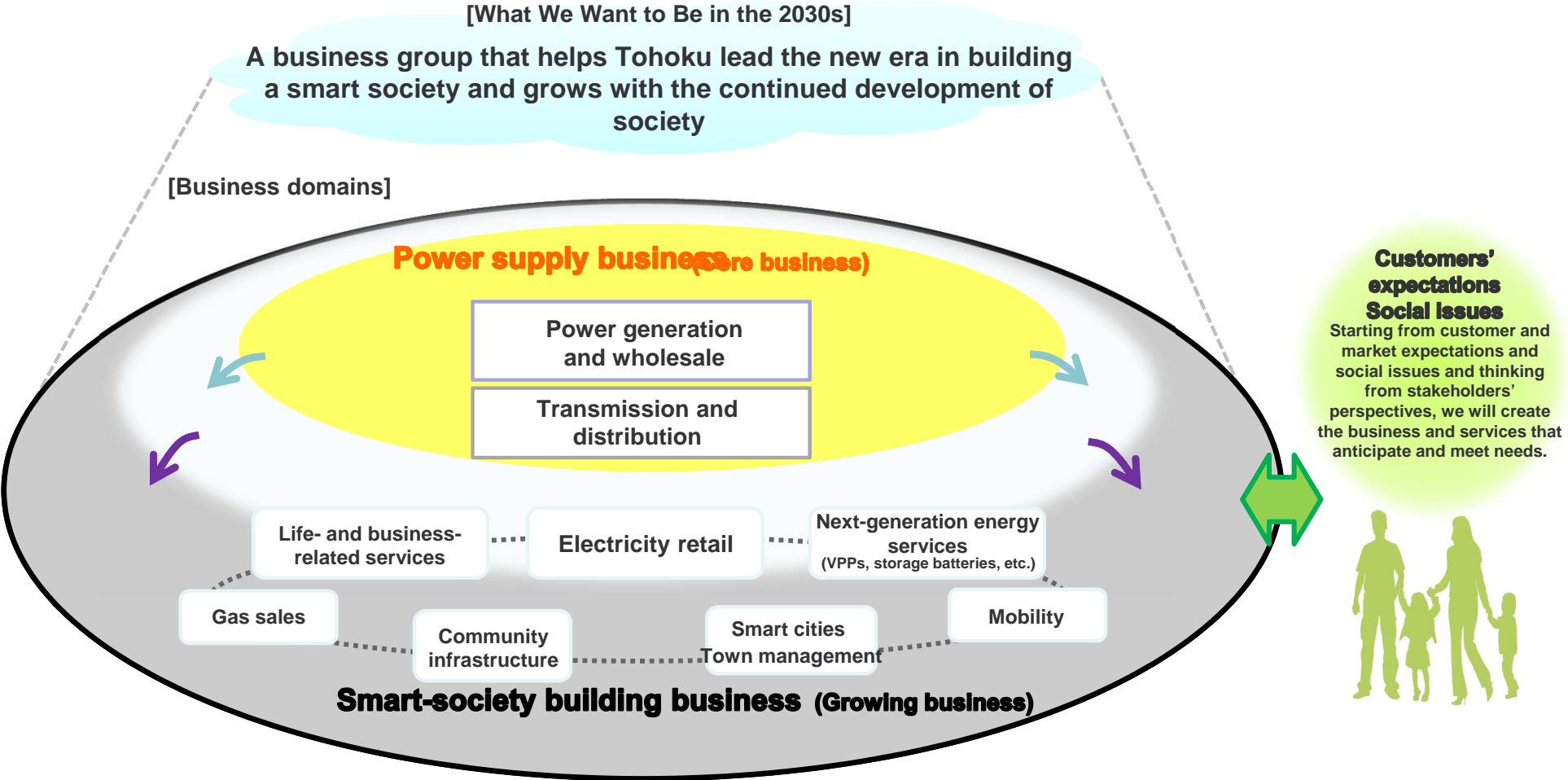
# Topics

- The business environment surrounding our group is at a major turning point for society and the power supply and demand structure. We need to actively promote reforms and proactively meet challenges. Otherwise, it will be difficult for us to keep fulfilling our raison d'être and growing with society.
- Out of this strong sense of crisis, our group will aim to become in the 2030s **a business group that helps Tohoku lead the new era in building a smart society and grows with the continued development of society**. We will also keep supplying power mainly to the six prefectures of Tohoku and Niigata Prefecture and, through the business that aims to build a smart society (Society 5.0), we will achieve both society's continued development and our own growth.



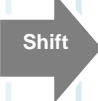
- In the six prefectures of Tohoku and Niigata Prefecture, where our group has our base of operations, social issues are expected to come to the surface in various fields with the progress of depopulation, birthrate decline, and population aging. Moreover, in the energy industry, in addition to intensified competition due to full liberalization of the electricity retail market, progress in de-carbonization, de-centralization, and digitalization is changing the power supply and demand structure. If we stick to our conventional business model, we will possibly be unable to respond to these changes or grow continuously.
- To promote reforms, proactively meet challenges, and keep growing with local communities in this major turning point of society and the power supply and demand structure, we will conduct business while focusing on three key points: (1) business expansion with the recognition of the resolution of social issues as business opportunities, (2) thorough enhancement of our competitiveness in the business of power supply through the grid, and (3) active utilization of distributed energy.





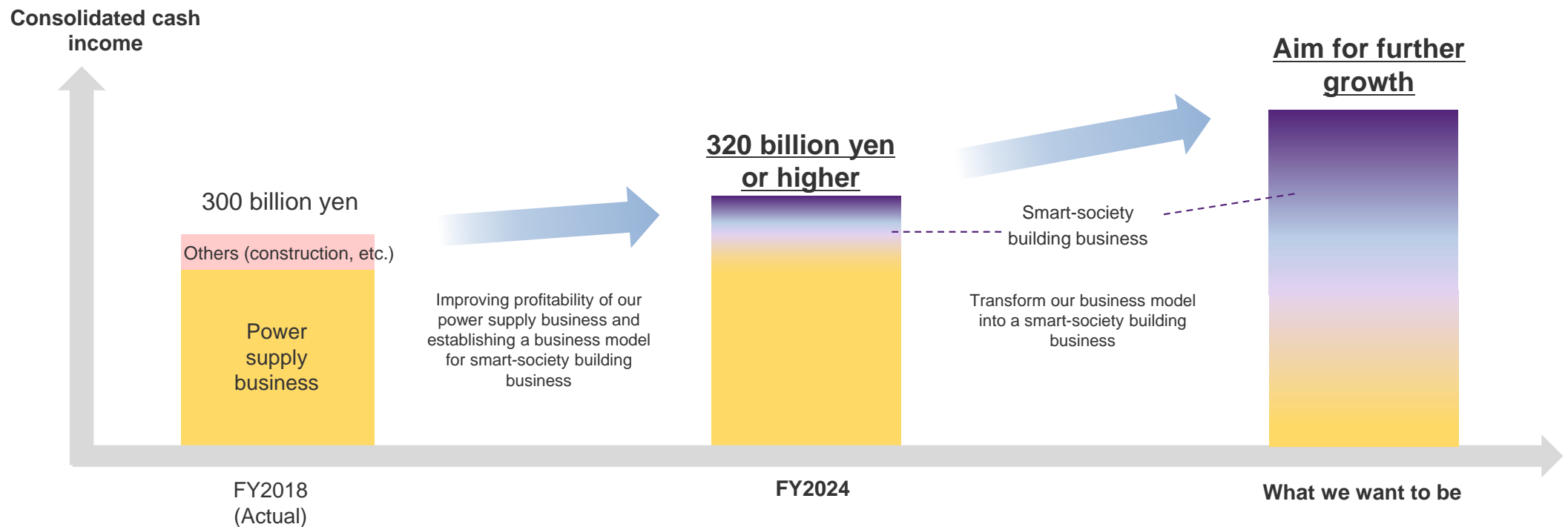
### [Tohoku Electric Power Group's Mission]

(Previously)  
To contribute to the development of the six prefectures of Tohoku and Niigata Prefecture through stable, eco-friendly supply of reasonably-priced power on the premise of safety



(From now on)  
In addition to working on the previous mission, we remain a leading company in terms of energy (grid power + distributed energy) in the six prefectures of Tohoku and Niigata Prefecture, conduct business that contributes to the maximum enrichment of customers' lives and the solution of social issues, and lead the building of a smart society from Tohoku.

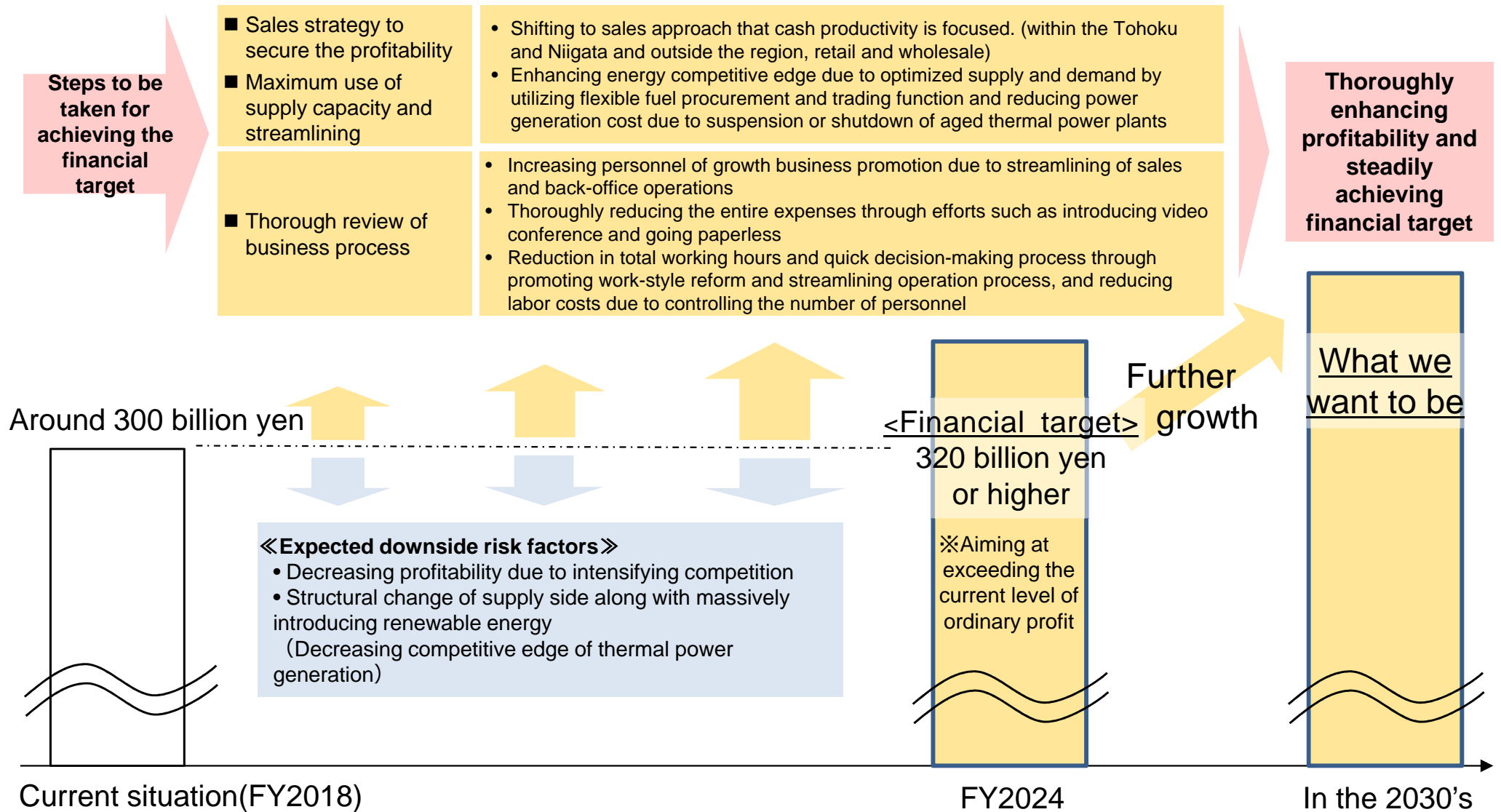
- Our group will thoroughly enhance our competitiveness through structural reforms in our power supply business, which is our core business, thereby securing stable profits. We will also venture into smart-society building business and strategically devote our management resources to this growing business, thereby transforming our business model significantly.
- For a higher cash generation capacity, which we need to achieve business model transformation, we will set a financial goal for consolidated cash income (calculated as operating income + depreciation + amortization of nuclear fuel + share of profit of entities accounted for using equity method). We will aim to **reach consolidated cash income of 320 billion yen or higher in fiscal 2024, build a base of cash generation capacity that is sustainable over the long term**, and further grow in the future. We will also steadily return profit to a wide variety of stakeholders.



# Quantitative Targets (Financial Goals)

## ■ Initiative to achieve financial targets

➤ In the midst of intensifying competition, **we will promote sales strategy that focuses on additional cash productivity and profit**, boldly undertake structural reform of power supply business, **reduce both variable cost and fixed cost with tens of billions of yen**, **steadily achieve the financial target of consolidated cash profit of more than 320 billion yen in the fiscal 2024**.





## ■ Profit distribution, financial discipline (image)

- In the “business model transition period”, in addition to restarting nuclear power and expansion of thermal power, investment in growth businesses to transform the business model is expected to continue for the time being.
- In order to maintain a certain level of financial discipline and soundness and to maintain the current rating level, we will steadily proceed with efforts to strengthen cash generation capacity and balance sheet management by achieving financial targets.

### <Concept of financial targets (consolidated cash income)>

- To realize the "Mid- to long-term vision," we will prevent the decline in profits due to the current structural changes in the supply and demand / balance, and accelerate the investment of resources for growth. Based on this, we adopted “consolidated cash income” as a financial target as an index focusing on “cash generation output”.
- Based on the cash level required to maintain a stable supply, invest in new growth areas, and pay and return to various stakeholders, we have set a minimum level of 320 billion yen by FY2024.

### <Concept of financial discipline, shareholder returns, and capital efficiency>

	Past Concept	Concept in Mid- to long-term vision	Reason for change
<b>Financial security</b>	Increase the consolidated equity ratio to 25% or higher	Monitor consolidated interest-bearing debt / cash profit ratio and consolidated equity ratio	Since the equity capital(stock) that has been damaged by the earthquake has recovered to a certain extent, we will check financial discipline and soundness by adding an index that also considers debt repayment capacity (flow).
<b>Shareholder returns</b>	Stable dividend	Stable dividend + steady returns based on the prospect of achieving financial targets and restart of Onagawa Unit 2	Appropriate cash-generating power improvement results for shareholder returns
<b>Capital efficiency</b>	By monitoring the profitability of individual investments and the capital efficiency of the entire corporate group, we will secure profitability of the electric power business and aim for early profitability of growth businesses by shifting resource. By doing so, we aim to improve the return on invested capital.		

With three Cs (Change, Challenge, Create) as core pillars, we will promptly make our smart-society building business profitable while promoting structural reforms in our power supply business, freeing ourselves from the conventional way of thinking and actions based on the FCD method and transforming our business model.

## Highlight 1: *“Change”*

Thorough enhancement of our competitiveness through drastic reforms in our power supply business

## Highlight 2: *“Challenge”*

Attempt to promptly make our smart-society building business profitable

## Highlight 3: *“Create”*

Evolution of our management base, which supports the creation of our corporate value

Highlight 1: "Change"  
Thorough enhancement of our competitiveness through drastic reforms in our power supply business

## Power generation and wholesale

### Nuclear power generation

- ✓ On the premise of safety, we will aim for the prompt restart of nuclear power station with the local community's understanding

### Thermal power generation

- ✓ Steadily promoting the development of Joetsu Thermal Power Unit 1

### Renewable energy

- ✓ Aims to develop 2GW primarily by Wind power

### Electricity wholesale

- ✓ Actively promoting wholesales and trade in the market

## Transmission and distribution

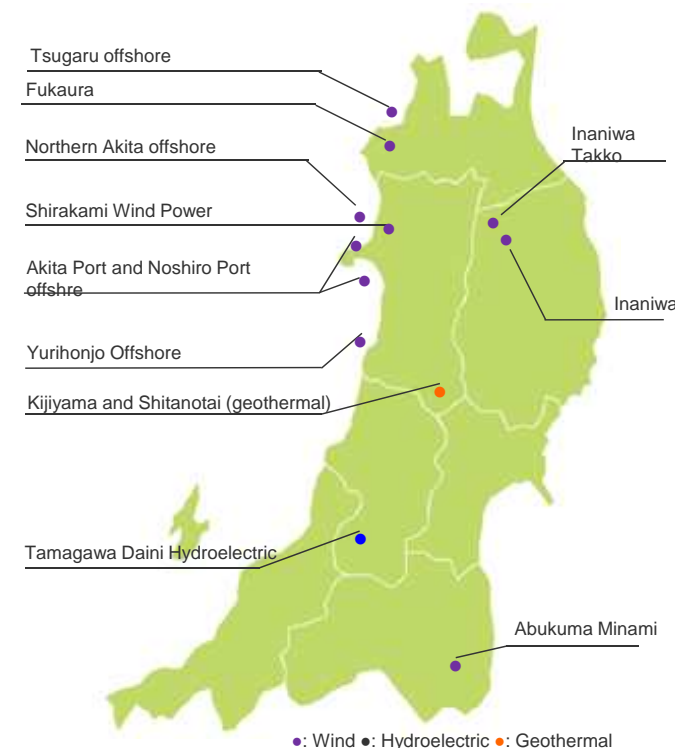
 Tohoku Electric Power Network Co., Inc.

Our transmission and distribution division was spun off into Tohoku Electric Power Network Co, Incorporated in April 2020.

- ✓ Strengthening our resilience
- ✓ Take measures against the aging facilities reduce costs at the same time through the use of AI and IoT
- ✓ Power network sophistication for building a smart society



Onagawa Nuclear Power Station, where construction for safety measures is under way



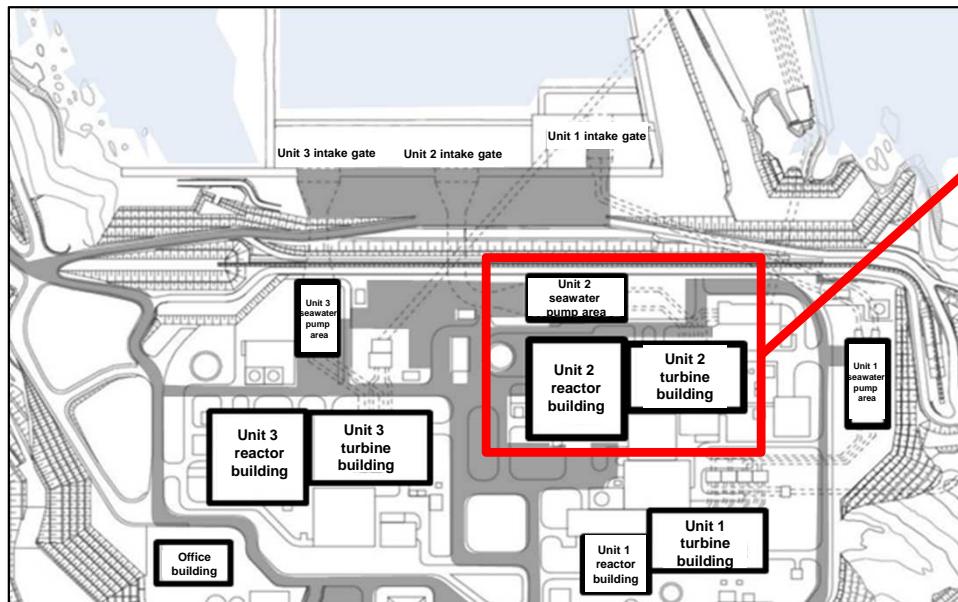
Major sites where our group is developing renewable energy or involved in renewable energy projects (including surveys of potential development)

## Onagawa Nuclear Power Station

- Following the approval of license amendment of the Onagawa Unit 2 reactor on February 26, 2020, it became possible to see the entire process of safety measures work in more detail. Therefore, we evaluated the completion time of the work again.
- As a result, it was decided to aim for the completion of the construction in FY2022 in consideration of the influence of the reliability improvement measures of the groundwater level lowering equipment and the construction of the tornado protection net which had to be added or changed in the examination on the construction process.

### <Status of efforts toward compliance with conformity assessments >

- In addition to conventionally planned seawall installation work, the reliability improvement measures of the groundwater level lowering equipment and construction work of tornado protection net will be carried out in the narrow seawater pump area 2.
- Since each construction interferes with the construction area, access routes for heavy machinery, storage areas for materials and equipment, etc., we decided to aim for the completion of construction by FY2022 as a result of adjusting the construction schedule on site.



Floor plan of Onagawa NPP

	Construction	Working area(Image) * Enlarged view of the red frame
①	Improving reliability of equipment for lowering groundwater level	
②	Construction of net to protect tornado	
③	Construction to install a seawall	

<p>Legend</p> <ul style="list-style-type: none"> <li><span style="display:inline-block; width:15px; height:15px; background-color: #FFC0CB; border: 1px solid black;"></span> Working area for Equipment for lowering groundwater level</li> <li><span style="display:inline-block; width:15px; height:15px; background-color: #FFFACD; border: 1px solid black;"></span> Working area for net to protect tornado</li> <li><span style="display:inline-block; width:15px; height:15px; background-color: #C8E6C9; border: 1px solid black;"></span> Working area for Construction to install a seawall</li> </ul>	<ul style="list-style-type: none"> <li> Equipment for lowering groundwater level (Pumping well, pump)</li> <li> Net to protect tornado</li> <li> Seawall</li> </ul>
---	---

## Higashidori Nuclear Power Station

➤ Currently, it is under examination to determine whether the on-site faults and the faults near the site other than directly under the earthquake-resistant important facilities, etc. correspond to "active faults to be considered as the epicenter". In addition to the standard tsunami examinations that have been conducted in parallel, we are also proceeding with the standard earthquake ground motion examinations. Regarding construction work for safety measures, we are working towards the completion of the work in FY2021.

### <Efforts to improve safety >

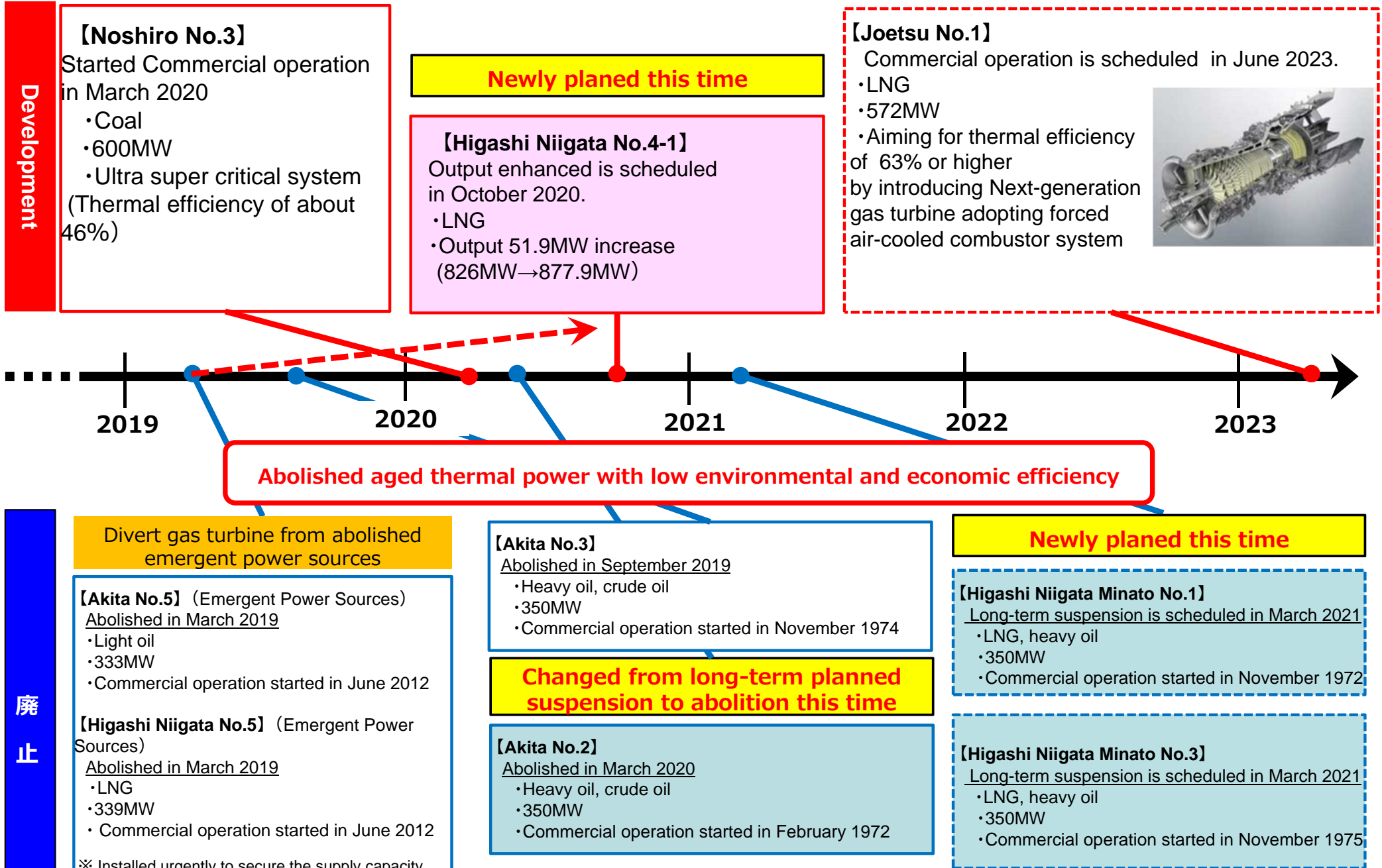


Power supply training with power supply vehicles

### <Current Status of Conformity Assessments>

Assessment of earthquake and tsunami	<ul style="list-style-type: none"> <li>•Our explanation that faults of f-1 and f-2 just below seismic critical facilities, such as the reactor building, are inactive for the foreseeable future has been judged to be appropriate.</li> <li>•Regarding other faults on the premises and faults near the premises, the evaluation of "active faults to be considered as the epicenter" is under review, taking into account the results of the supplementary survey conducted in 2019.</li> </ul> <p>In addition to the standard tsunami that was undergoing a parallel evaluation, the standard ground motion is also under review.</p>
Assessment of plants (facilities)	<ul style="list-style-type: none"> <li>•We are preparing while making use of the examination trends of the preceding plant and the examination experience at Onagawa Unit 2.</li> </ul>





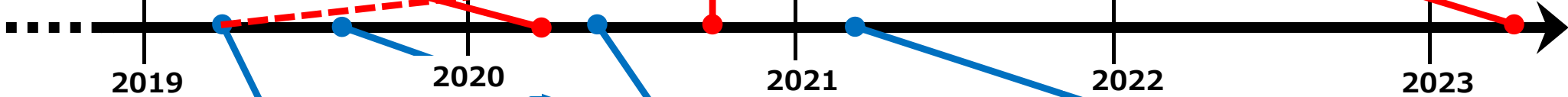
**Development**

**【Noshiro No.3】**  
 Started Commercial operation in March 2020  
 •Coal  
 •600MW  
 •Ultra super critical system (Thermal efficiency of about 46%)

**Newly planed this time**

**【Higashi Niigata No.4-1】**  
 Output enhanced is scheduled in October 2020.  
 •LNG  
 •Output 51.9MW increase (826MW→877.9MW)

**【Joetsu No.1】**  
 Commercial operation is scheduled in June 2023.  
 •LNG  
 •572MW  
 •Aiming for thermal efficiency of 63% or higher by introducing Next-generation gas turbine adopting forced air-cooled combustor system



**Abolished aged thermal power with low environmental and economic efficiency**

**廃止**

**Divert gas turbine from abolished emergent power sources**

**【Akita No.5】 (Emergent Power Sources)**  
 Abolished in March 2019  
 •Light oil  
 •333MW  
 •Commercial operation started in June 2012

**【Higashi Niigata No.5】 (Emergent Power Sources)**  
 Abolished in March 2019  
 •LNG  
 •339MW  
 • Commercial operation started in June 2012

※ Installed urgently to secure the supply capacity early after the Great East Japan Earthquake

**【Akita No.3】**  
 Abolished in September 2019  
 •Heavy oil, crude oil  
 •350MW  
 •Commercial operation started in November 1974

**Changed from long-term planned suspension to abolition this time**

**【Akita No.2】**  
 Abolished in March 2020  
 •Heavy oil, crude oil  
 •350MW  
 •Commercial operation started in February 1972

**Newly planed this time**

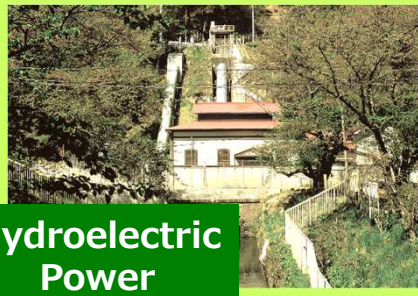
**【Higashi Niigata Minato No.1】**  
 Long-term suspension is scheduled in March 2021  
 •LNG, heavy oil  
 •350MW  
 •Commercial operation started in November 1972

**【Higashi Niigata Minato No.3】**  
 Long-term suspension is scheduled in March 2021  
 •LNG, heavy oil  
 •350MW  
 •Commercial operation started in November 1975

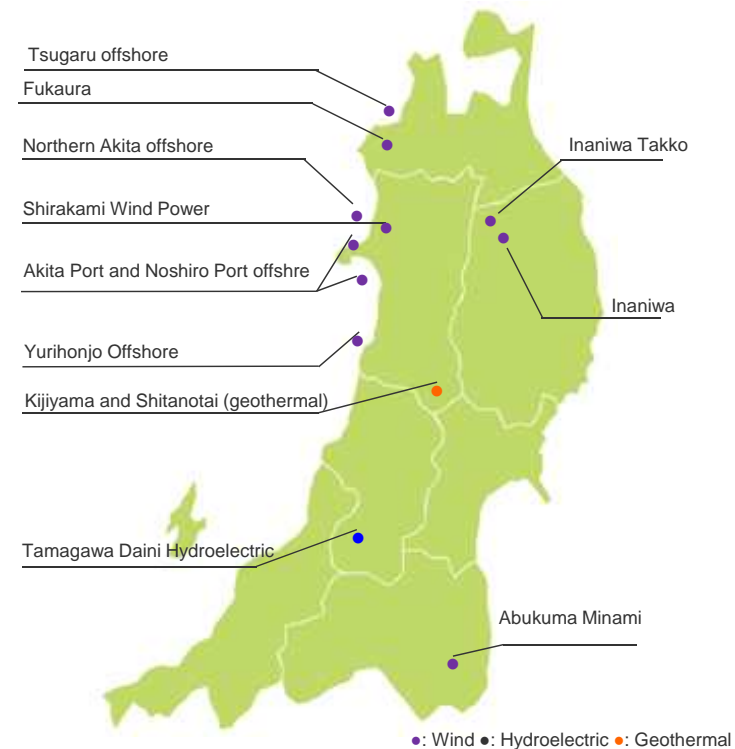
➤ With Akita No. 2 abolished, the only operating power source at Akita Thermal Power Station will be Akita No. 4 (600MW). As Akita No. 4 is aging like Akita No. 2, it will continue to operate for the time being, but it will be considered for abolishment in the future.

- Our group has been working on the efficient use of renewable energy found in abundance in the six prefectures of Tohoku and Niigata Prefecture. For example, we have Japan's largest geothermal power generation facilities (accounting for about 45% of the total generating capacity of Japan) and 227 hydroelectric power generation facilities.
- Considering renewable energy as a power source that will play a part in our future power source portfolio, we aim to become a responsible business entity dealing with renewable energy in the six prefectures of Tohoku and Niigata Prefecture. Having wind power generation at the core and covering hydroelectric, photovoltaic, geothermal, and biomass power generation, we will utilize the know-how our group has acquired and work on new development and business projects. **Aiming for 2GW mainly in the six prefectures of Tohoku and Niigata Prefecture**, we will preferentially devote our management resources to the effort.
- From the perspective of the general life cycle of renewable energy, we will also consider conducting **operation and maintenance (O&M) business and power source replacement business**.

## Expand Renewable Energy Business <Aims to develop 2GW primarily by Wind power>



Major sites where our group is developing renewable energy or involved in renewable energy projects (including surveys of potential development)

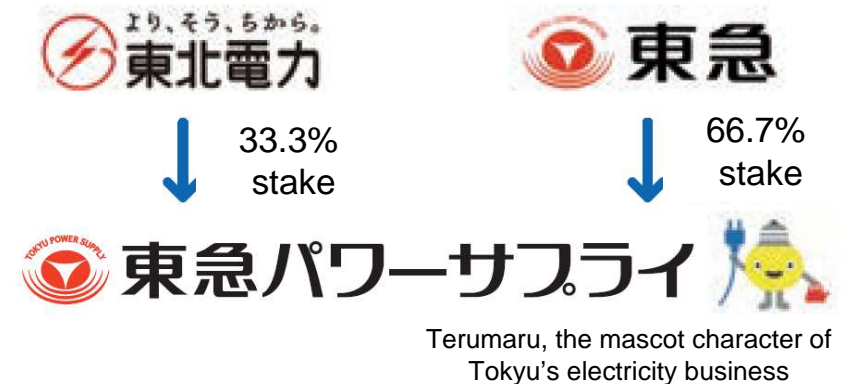


- Synergia Power Co., Ltd., a company we established jointly with Tokyo Gas Co., Ltd., sells electricity for customers who use high- or extra-high voltage power in the Kanto region (mainly in the northern Kanto area).
- Tokyu Power Supply Co., Ltd., in which we invested in March 2018 sells electricity and gas mainly to customers living in areas along the Tokyu lines.
- Both companies have steadily won contracts and will continue to expand in the future.

## Synergia Power

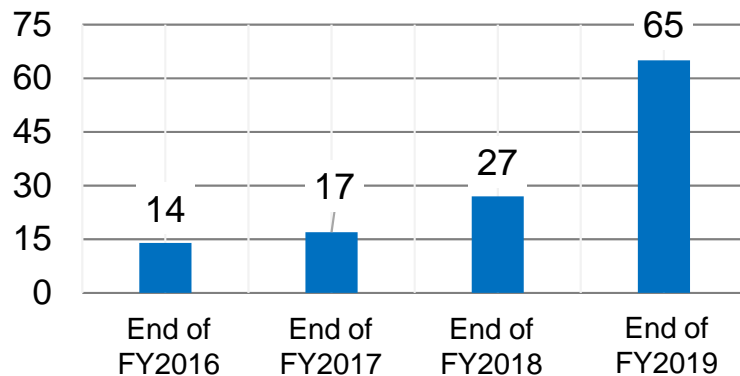


## Tokyu Power Supply



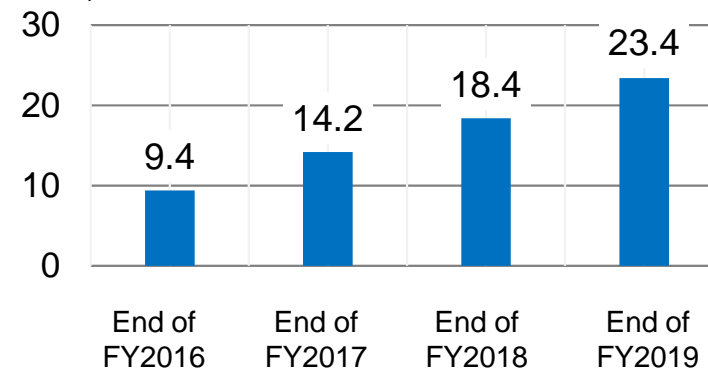
### Electricity Contract Capacity

(10 thousand kW)



### Number of Contracts ※ Electricity contracts only

(10 thousand)





## Highlight 2: "Challenge" Attempt to promptly make our smart-society building business profitable

- ✓ Enhancement both customer satisfaction and our profitability by offering energy and services as a total package
- ✓ Offering total energy solutions in cooperation with town gas operators in the six prefectures of Tohoku and Niigata Prefecture
- ✓ Promptly commercializing services of VPP and service of offering distributed energy to customers and installing storage batteries
- ✓ Considering and developing mobility services
- ✓ Involvement in smart cities and town management

より、そう、ちから。

Tohoku Electric Power's comprehensive life support services **+ONE**

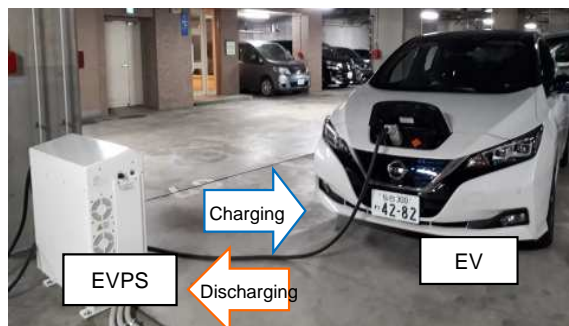
**Life support service マカプコンシェルジュ**

- Child location service "Yorisou Kokocchi" 
- Local events and special deals "Ode Café" 
- Helping customers with electrification "Kokodenka" 
- Life support service provided through a communication robot "BOCCO" 
- Health consultation service 

Life support services for households "Makapuu Concierge"






Strategic cooperation with Next Kraftwerke (Germany), one of the world's largest VPP operators



V2G demonstration project in cooperation with Nissan Motor Corporation, Mitsui & Co., Ltd., and Mitsubishi Estate Co., Ltd.

### Tsunagaru Denki

-  **Combination** with electricity generated by customer facilities ✓ **Simple purchase**
-  **Going into** a future lifestyle by using electricity without wasting it ✓ **EcoCute leasing** ✓ **Storage battery leasing** ✓ **Storing customers' excess electricity**
-  **Closer ties** among local communities through electricity ✓ **VPP project for households**

The lineup of "Tsunagaru Denki" services for post-FIT customers


## ■ <New Initiative> Business Collaboration with Nikaho Gas Co., Ltd.

- On 30 March, 2020, we concluded business collaboration contract with Nikaho Gas Co., Ltd. in terms of selling a package of rate plans that combine city gas with electricity.
- From now on, both Nikaho Gas Co., Ltd. and Tohoku Electric Power Co., Ltd will support our customers' rich lives, as well as contributing to development of the local community by selling a package of rate plans that combine city gas with electricity.

### Nikaho Gas Co., Ltd.

- ✓ For those who enroll for City Gas Plan of Nikaho Gas Co., Ltd. and registered as TCL (Total Life Concierge) members of the Tokai Group




よりそう  eねっとバリュー For those who enroll for Yori Sou plus e-Net Value

Highlight

Recommended for those who are Yori Sou e-net members which is our members-only website service, and use Meter Rate Lightening B.

Or

よりそう  ファミリーバリュー For those who enroll for Yori, Sou Plus Family Value

Highlight

Recommended for those who are child-rearing families, large families with the 2nd or 3rd generations and consume much electricity during daytime regardless of seasons and time.



※1 Saving TLC points in a smart manner

Contract including both city gas and electricity

50 points are saved every month if a customer enrolls both for city gas and electricity



200 points are added every month only within 5 years

Luckily, 3,000 points (equivalent to 3,000 yen ※2) are annually saved for the first five years!

※1 : After registering members-only TLC service that the Tokai group provides, points are saved monthly at the time of service usage.  
 ※2 : As for "TLC point", 1 point is converted into 1 yen. (Point exchange rate differs in each case.)

■ <New Initiative>

A new service "Yori Sou Smart Home+" for family users whose FIT scheme is to be expired

➤ Following "Tsunagaru Denki", as a new service for family users whose FIT scheme is to be expired, "Yori Sou Smart Home+ (plus)" started on March 16, 2020.

If the users introduce a home device "Cube" and a smartphone-only app "e-home", they are able to check the amount of surplus power for sales through smartphone in real time, as well as inform their smartphones when the amount was lower than their expectation.

**Basic Service**



Cube

➔

App



e-home

➔






- Check the surplus power for sales and electric bills through smartphone in real time
- Inform their smartphones when the amount was lower than their expectation
- Control warranty and instruction manual of home appliances in collaboration with "Smart App for home appliances" run by Intech Co., Ltd.

+

In addition to the basic plan above, our users can select either "Watch-over Plan A" or "Watch-over Plan B", depending on their purpose.

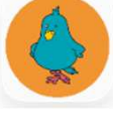
**Watch-over Plan A**

Infrared remote control + Humidity and temperature sensor


➔

App





e-home

➔



- A sensor will detect temperature and humidity in a room. If the temperature and humidity exceed the preset figures, notification will be provided to the users' smartphones.
- Remotely control the air conditioner from smartphones via infrared remote control.

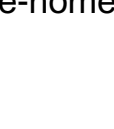
**Watch-over Plan B**

Camera + Motion sensor

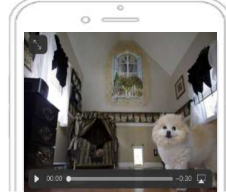
➔

App



e-home

➔



- Monitor the room with camera.
- Motion sensor will respond to something that is moving in a room such as doors.
- If some movement was detected, the footage recorded before and after the movement for 30 seconds will be sent to the users' smartphones.

➤ We will work to expand sales of gas through efforts such as strengthening sales and proposal activities in cooperation with corporate groups and city gas companies, and further utilizing our gas business facilities, with the aim of maximizing consolidated profit.

■ Business partnership with Ishinomaki Gas Co., Ltd.



Ishinomaki Gas Co., Ltd.



Tohoku Electric Power Co., Inc.

✓ For business users, we jointly operate to expand gas sales volume and propose service combined electricity and gas.

Make further efforts to meet our customers' needs and contribute to the recovery from the 2011 disaster and development of industrial infrastructure in Ishinomaki area

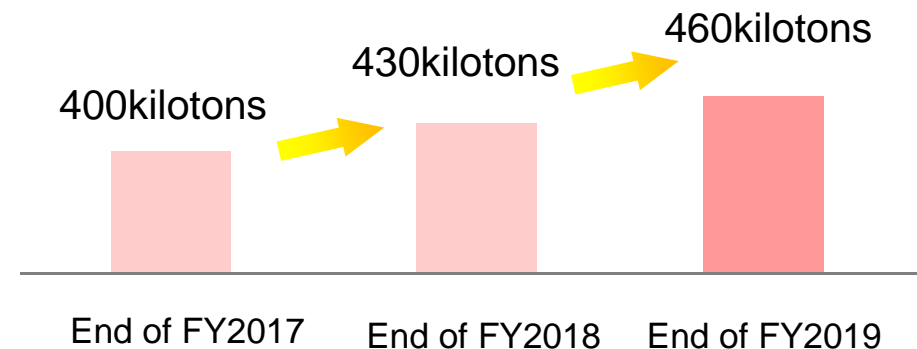
Basic contract regarding business partnership between Ishinomaki Gas Co., Ltd. and Tohoku Electric Power Co., Ltd.

■ Utilizing the LNG shipping facilities of Shin-Sendai Thermal Power Station

Start of commercial operation	August 2018
Shipping destination	<ul style="list-style-type: none"> <li>• Toyota Motor East Japan, Inc.</li> <li>• Denso Iwate Corp.etc</li> </ul>



■ Gas Sales Volume





- Aiming to realize a smart society, we are developing initiatives that contribute to maximizing customer wealth and solving social issues from various perspectives such as VPP, mobility, and smart city. We aim to create new value and transform our business model.
- Positioning VPP as a future growth area, we are working in partnership with local government and corporate customers. We are promoting various efforts toward commercialization, such as verification with next-kraftwerke which is the world's largest VPP operator, P2P power trading which is a new technology, and V2G verification. In addition to these, we are considering developing new services that utilize our resources.
- We are also advancing initiatives that contribute to solving local issues, such as initiatives for mobility such as EV charging infrastructure and car sharing, and participation in smart cities and town management.

### ■ Various efforts toward early commercialization of VPP

#### – Verification for VPP resource utilization

• We are verifying market transaction requirements and response characteristics for storage batteries owned by local governments (Sendai City, Niigata City, etc.) and generators for corporate customers. (2018FY ~)

#### – Initiatives for diversifying VPP resources

• We are carrying out a joint demonstration project to build a technology (V2G) that connects and discharges the storage battery of an electric vehicle to the power grid. With the view to utilizing electric vehicles as VPP resources, we will continue to carry out joint demonstrations with our company, Nissan Motor Co., Ltd., Mitsui & Co., Ltd., Mitsubishi Estate Co., Ltd., and Ricoh Japan Co., Ltd. (2018FY-)

#### – Acquisition of optimal control technology and new business opportunities

• Signed a strategic cooperation agreement with next-kraftwerke, which has accurate and optimal control technology for multiple energy resources. In addition to verifying the effectiveness of control using the company's VPP system, aim to acquire new business opportunities by upgrading VPP control technology (2019FY-)

#### – Advanced initiatives utilizing digital technology

• We are conducting verification on virtual power interchange (load leveling, direct power transaction, etc.) by utilizing a new technology, blockchain. We are considering a matching method for electric power trading between individuals and a platform for realizing it (2019FY ~)

### ■ Improvement of transportation infrastructure through initiatives for mobility

• Through efforts such as EV charging and car sharing, which will be required as a transportation infrastructure in the future, we will both increase our profits and solve problems in local communities

### ■ Contribution to sustainable town development

• We are participating in projects related to smart cities and town management from the perspective of contributing to the formation of a low-carbon society and recycling-oriented society and aiming to build a sustainable regional society. We are considering introducing solution services in the ongoing development plan in Sendai City (2019FY-)



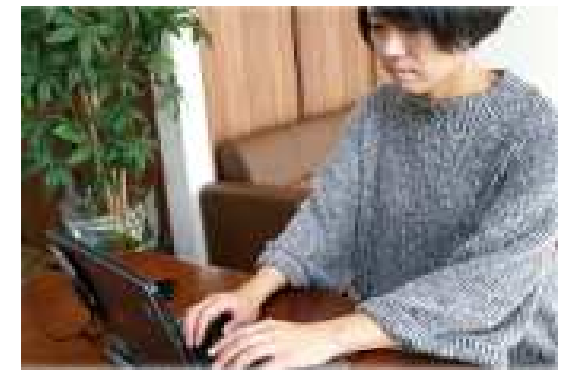
Signed VPP basic agreement with Niigata City



VPP demonstration with customers

## Highlight 3: "Create" Evolution of our management base, which supports the creation of our corporate value

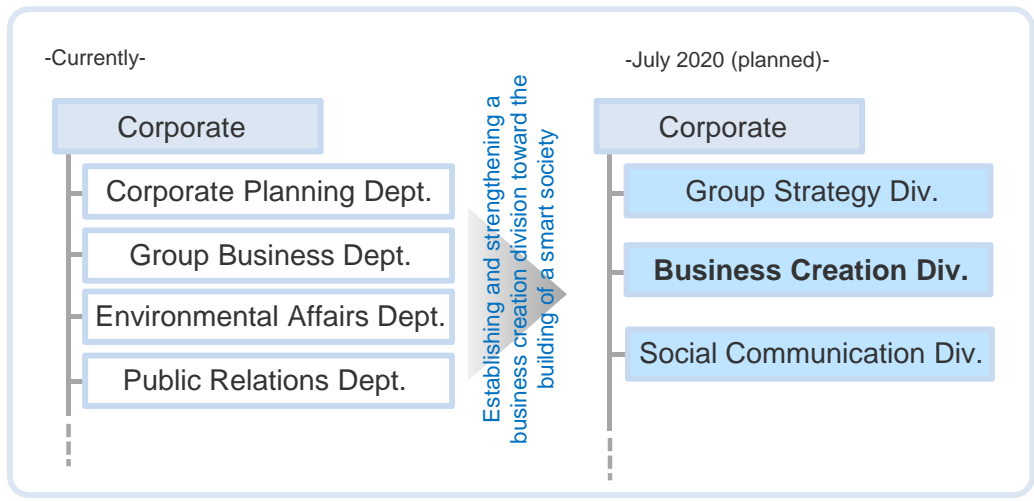
- ✓ Strengthening the ability to create corporate value by focusing ESG(Environment, Social, Governance) and making effective use of management resources
- ✓ Establishing and strengthening a business creation division toward the building of a smart society  
( The corporate reorganization is scheduled in July 2020)
- ✓ Accelerating work-style reform and Promoting diversity
- ✓ All the group company employees' putting "Yori, Sou, Chikara (the Strength to Work Alongside)" into practice



Expansion of our telecommuting system and other efforts to promote a variety of work styles



Diversity management training for managers







Corporate reorganization overview

**E**  
(Environment)

**Issuance of Tohoku Electric Green Bond**

In light of expanding renewable energy and ensuring diversification of financing, we **issued a Tohoku Power Green Bond** in February 2020. This green bond limits the use of the procured funds to projects that have environmental improvement effects at home and abroad, such as the development of renewable energy.

**Summary**

Period to maturity	10 years
Amount of issue	5 billion yen
Date of issue	February 27, 2020
Lead manage and Structuring Agent	SMBC Nikko Securities Inc.
Consistency of use of funds with SDGs	   

**S**  
(Social)

**Certification for Health and Productivity Organization**

Under the Certified Health and Productivity Organization Recognition Program jointly conducted by Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi\*, we were recognized as **2020 Certified Health & Productivity Management Organizations so-called 2020's White 500 in the large enterprise category.**



\* Certified Health and Productivity Organization Recognition Program is designed to award the organizations that put into practice excellent health and productivity management, based on efforts in response to regional health issues and health promotion conducted by Nippon Kenko Kaigi.

**G**  
(Governance)

**Formulating Basic Principle on Corporate Governance**

- In order to show the basic idea and concrete efforts in terms of Corporate Governance, **Basic Principle on Corporate Governance is formulated** pursuant to the resolution of board of directors.
- Under this principle to ensure proper business management, we are endeavoring to enhance its corporate governance by securing legal compliance and corporate ethics, as well as conducting sincere, fair and transparent business activities, and increasing the rigor of our internal control and risk management.

---

# References



# Balance Sheets (Consolidated)

28

(billions of yen)

	Mar. 31, 2020 (A)	Mar. 31, 2019 (B)	Change (A) - (B)	Major factors for change
Total Assets	4,323.0	4,258.6	64.4	
Non-current Assets	3,679.0	3,620.9	58.0	Electric utility plant and equipment : 36.6
Current Assets	644.0	637.6	6.3	
Total Liabilities	3,458.9	3,424.9	34.0	
Non-current Liabilities	2,457.1	2,431.2	25.9	
Current Liabilities	1,001.7	993.6	8.0	
Net Assets	864.1	833.7	30.4	Retained earnings : 43.0

Interest-Bearing Liabilities	2,412.6	2,381.1	31.4	Bonds : 140.0 Loans : (68.5) CP : (40.0)
------------------------------	---------	---------	------	--

	FY2019 (A)	FY2018 (B)	Change (A) - (B)
Capital Expenditure	344.7	293.6	51.1

# Statements of Income (Consolidated)

29

(billions of yen)

	FY2019 (A)	FY2018 (B)	Comparison	
			(A) - (B)	(A) / (B)
Operating Revenue	2,246.3	2,244.3	2.0	100.1%
Electric utility	2,022.2	2,012.7	9.5	100.5%
Other business	224.1	231.6	(7.4)	96.8%
Operating Expenses	2,130.0	2,160.6	(30.6)	98.6%
Electric utility	1,916.4	1,943.0	(26.5)	98.6%
Other business	213.5	217.6	(4.1)	98.1%
Operating Income	116.3	83.6	32.7	139.1%
Non-operating income	8.7	6.8	1.8	127.5%
Non-operating expenses	25.1	24.7	0.3	101.5%
Ordinary Income	99.9	65.7	34.2	152.1%
Provision or reversal of reserve for fluctuation in water levels	-	(1.1)	1.1	-
Extraordinary gain	-	7.9	(7.9)	-
Extraordinary loss	6.1	2.1	4.0	288.9%
Income taxes	28.7	21.7	6.9	132.1%
Net income attributable to non-controlling interests	1.9	4.3	(2.3)	45.5%
Net Income Attributable to Owners of Parent	63.0	46.4	16.5	135.7%

# Statements of Cash Flows (Consolidated)

30

(billions of yen)

	FY2019 (A)	FY2018 (B)	Change (A) - (B)	Major factors for change
Cash Flows from Operating Activities	371.5	262.8	108.7	
Cash Flows from Investing Activities	(310.6)	(250.5)	(60.0)	
Cash Flows from Financing Activities	6.7	(69.3)	76.0	Bonds : 159.3 Loan: (21.4) CP: (62.0)
Net Cash Flows	67.3	(57.2)	124.6	
Cash and cash equivalents at end of the period	252.3	184.9	67.3	
Free Cash Flows*	77.1	30.6	46.5	

\*: Our definition;

Free Cash Flows = (Cash Flows from Operating Activities) + (Cash Flows from Investing Activities) – (Interest and dividend income) – (Interest expenses)

# Segment Information (Consolidated)

31

(billions of yen)

	FY2019 (A)	FY2018 (B)	Change (A) - (B)
Sales*	2,527.1	2,516.8	10.2
	2,246.3	2,244.3	2.0
Electric Utility	2,025.6	2,015.9	9.7
	2,022.4	2,012.7	9.6
Construction	273.1	275.8	(2.7)
	126.2	132.5	(6.3)
Gas	43.6	44.2	(0.6)
	36.4	37.3	(0.8)
IT	50.1	47.0	3.0
	20.0	19.6	0.3
Others	134.5	133.6	0.8
	41.2	42.0	(0.7)

(billions of yen)

	FY2019 (A)	FY2018 (B)	Change (A) - (B)
Segment Income [Operating Income]	119.5	86.5	33.0
Electric Utility	101.1	64.8	36.2
Construction	8.7	10.8	(2.1)
Gas	2.2	1.9	0.3
IT	3.3	2.5	0.8
Others	4.0	6.3	(2.2)

\*: Lower is net sales to outside customers.

# Segment Information (Consolidated)

32

## 【 Major Consolidated Subsidiaries 】\*

(billions of yen)

	FY2019		Year-on-year	
	Sales	Operating Income	Sales	Operating Income
<b>【 Electric Utility 】</b>				
Sakata Kyodo Power Co., Ltd.	38.1	0.3	(3.1)	0.2
Tohoku Sustainable & Renewable Energy Co., Inc.	10.0	2.1	1.1	1.5
<b>【 Construction 】</b>				
Yurtec Corp.	190.2	4.9	(3.3)	(2.6)
Tohoku Electric Engineering & Construction Co., Inc.	62.2	2.0	(3.0)	0.1
<b>【 Gas 】</b>				
Nihonkai LNG Co., Ltd.	13.8	0.8	(0.8)	(0.1)
<b>【 IT 】</b>				
Tohoku Intelligent Telecommunication Co., Inc.	23.2	2.6	0.1	0.3
Tohoku Information Systems Co., Inc.	28.9	1.1	3.2	0.6
<b>【 Others 】</b>				
Kitanihon Electric cable Co., Ltd.	27.9	(0.2)	(1.4)	(0.5)

\*: The amounts before elimination of inter-company transaction

# Balance Sheets (Non-consolidated)

33

(billions of yen)

	Mar. 31, 2020 (A)	Mar. 31, 2019 (B)	Change (A) - (B)	Major factors for change
Total Assets	3,962.7	3,923.5	39.2	
Non-current Assets	3,528.8	3,480.9	47.9	Electric utility plant and equipment : 33.7
Current Assets	433.9	442.6	(8.6)	
Total Liabilities	3,279.0	3,269.3	9.7	
Non-current Liabilities	2,375.9	2,361.4	14.5	
Current Liabilities	903.0	907.8	(4.8)	
Net Assets	683.7	654.1	29.5	

Interest-Bearing Liabilities	2,390.6	2,357.0	33.6	Bonds : 140.0 Loans : (66.3) CP : (40.0)
------------------------------	---------	---------	------	--

	FY2019 (A)	FY2018 (B)	Change (A) - (B)
Capital Expenditure	313.8	256.6	57.1

# Statements of Income (Non-consolidated)

34

(billions of yen)

		FY2019 (A)	FY2018 (B)	Comparison		Major factors for change
				(A) - (B)	(A) / (B)	
Revenue	Revenue from Electricity Sales	1,361.3	1,428.4	(67.1)	95.3%	
	Lighting (Residential)	560.5	590.9	(30.4)	94.9%	
	Power	800.7	837.5	(36.7)	95.6%	
	Sales of power to other utilities and other companies	332.4	310.1	22.2	107.2%	Increase in indirect auction
	Grant under Act on Purchase of Renewable Energy Sourced Electricity	226.5	179.3	47.1	126.3%	Increase in purchased volume from solar
	Other revenue	119.0	117.2	1.7	101.5%	
	[Operating Revenue]	[ 2,031.9 ]	[ 2,025.5 ]	[ 6.4 ]	[ 100.3% ]	
	Total revenue	2,039.3	2,035.2	4.0	100.2%	
Expenses	Personnel	141.4	158.2	(16.7)	89.4%	
	[Amortization of actuarial gain or loss]	[ 3.5 ]	[ 20.2 ]	[ (16.6) ]	[ 17.7% ]	
	Fuel	353.3	423.1	(69.7)	83.5%	Decrease in fuel price
	Maintenance	158.3	170.6	(12.2)	92.8%	Decrease in maintenance of thermal power generation facilities
	Depreciation	208.4	197.6	10.8	105.5%	Increase due to due to starting operation of Noshiro No.3
	Power purchased from other utilities and other companies	627.5	571.8	55.7	109.7%	Increase in indirect auction
	Interest	17.1	18.5	(1.4)	92.3%	
	Taxes, etc.	83.1	84.4	(1.3)	98.4%	
	Nuclear power back-end cost	9.9	10.3	(0.3)	96.2%	
	Levy under Act on Purchase of Renewable Energy Sourced Electricity	165.2	166.1	(0.9)	99.5%	
	Other expenses	196.5	187.3	9.1	104.9%	
Total expenses	1,961.3	1,988.4	(27.1)	98.6%		
[Operating Income]		[ 94.0 ]	[ 60.2 ]	[ 33.7 ]	[ 156.0% ]	
Ordinary Income		78.0	46.8	31.1	166.0%	
Provision or reversal of reserve for fluctuation in water levels		-	(1.1)	1.1	-	
Extraordinary gain		-	7.9	(7.9)	-	
Extraordinary loss		5.8	2.1	3.6	271.3%	Loss on disaster due to typhoon
Income taxes		20.5	13.3	7.1	153.7%	
Net Income		51.6	40.3	11.3	128.1%	

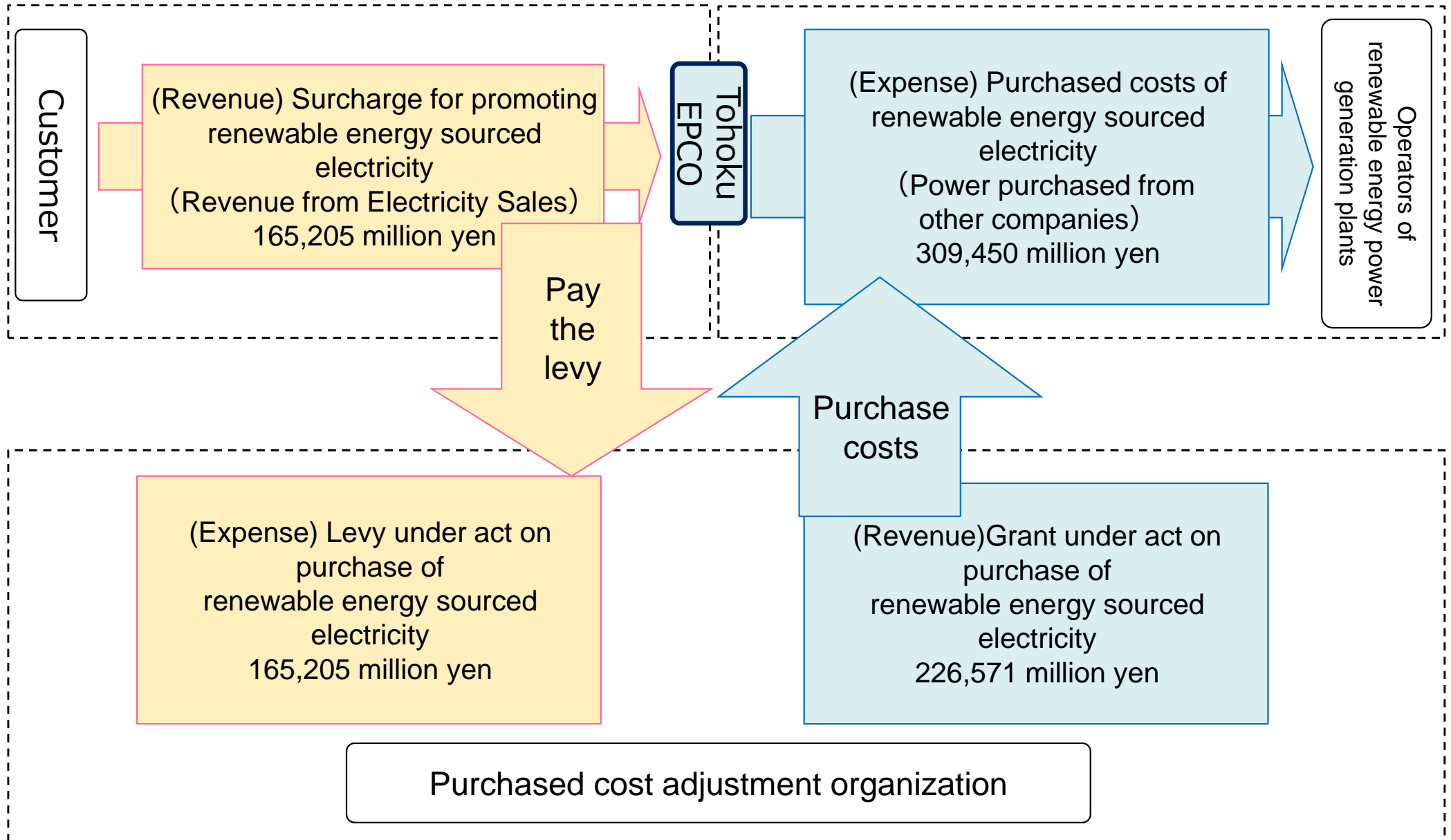
➤ Due to the time lag of the fuel cost adjustment system resulting from fluctuations in fuel prices and the deferral of consignment costs for nuclear power generation facilities, there has been a difference between the announced financial forecast and results.

(billions of yen)

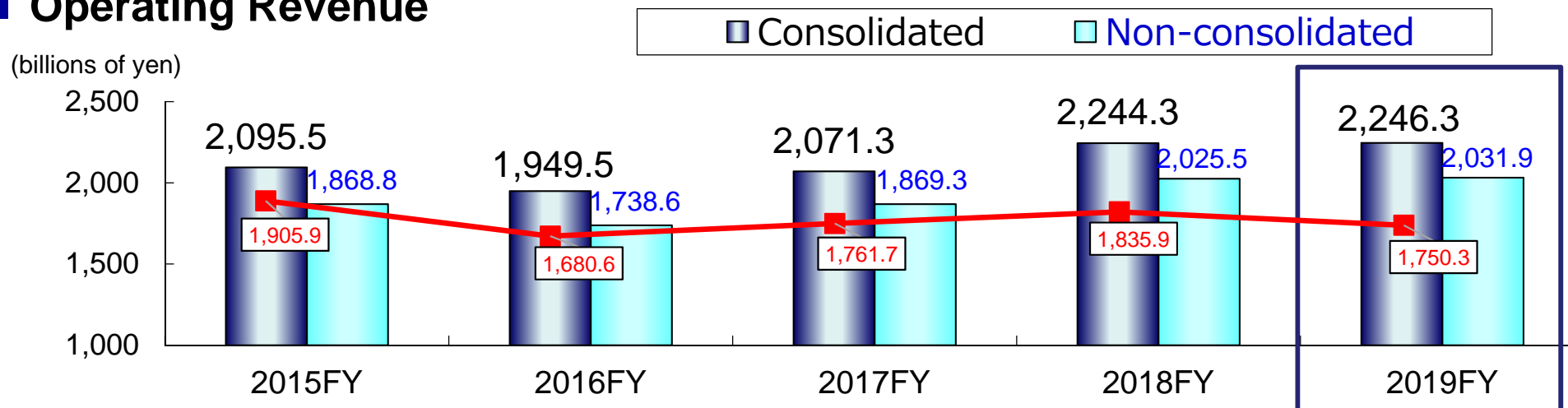
	Consolidated			Non-consolidated		
	Forecast announced in April 2019	Results of FY2019	Change	Forecast announced in April 2019	Results of FY2019	Change
Operating Revenue	2,390.0	2,246.3	(143.6)	2,170.0	2,031.9	(138.0)
Operating Income	90.0	116.3	26.3	69.0	94.0	25.0
Ordinary Income	73.0	99.9	26.9	55.0	78.0	23.0
Net Income Attributable to Owners of Parent or Net Income	45.0	63.0	18.0	39.0	51.6	12.6



## ■ FY2019

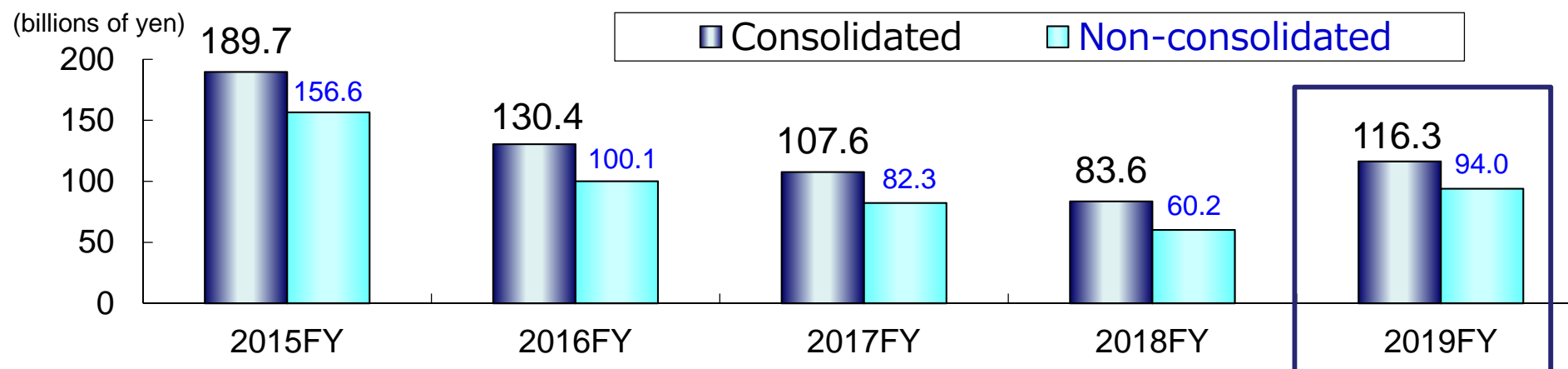


## ■ Operating Revenue



Note : Red line shows operating revenue (consolidated) excluding grant under act on purchase of renewable energy sourced electricity, the surcharge for promoting renewable energy sourced electricity, and the self-contracted portion due to indirect auction.

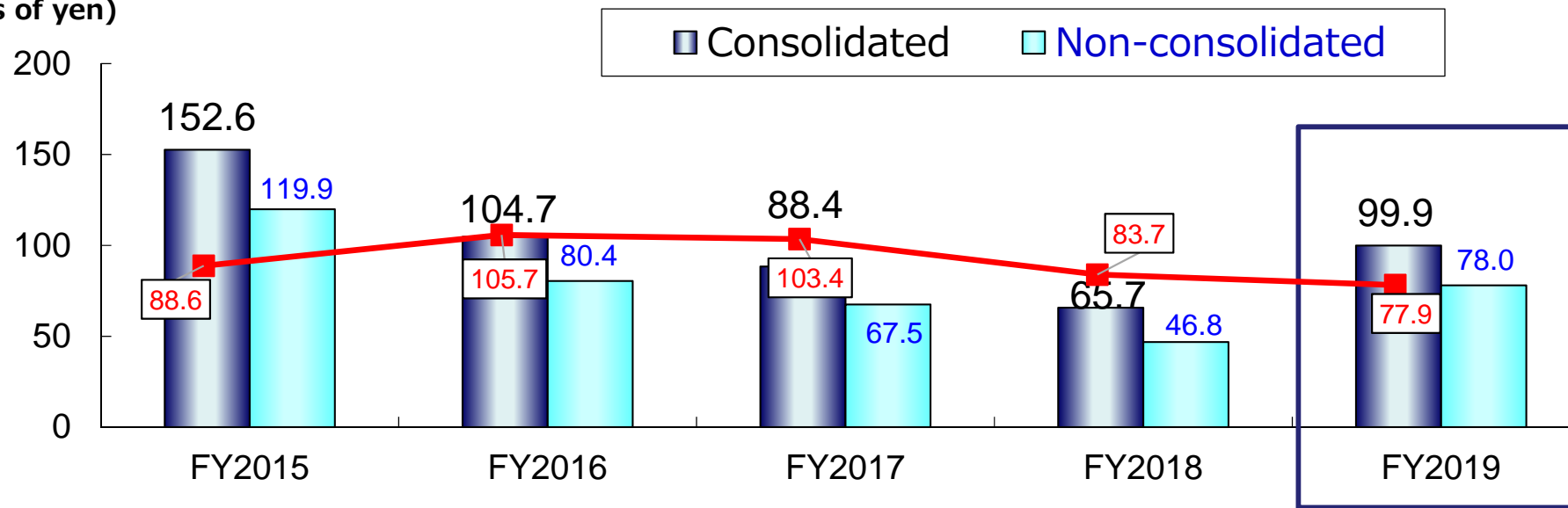
## ■ Operating Income



	2015FY	2016FY	2017FY	2018FY	2019FY
Operating Income on Operating Revenue Ratio (Consolidated basis)	9.1%	6.7%	5.2%	3.7%	5.2%
Operating Income on Operating Revenue Ratio using above red line (Consolidated basis)	10.0%	7.8%	6.1%	4.6%	6.6%

## ■ Ordinary Income

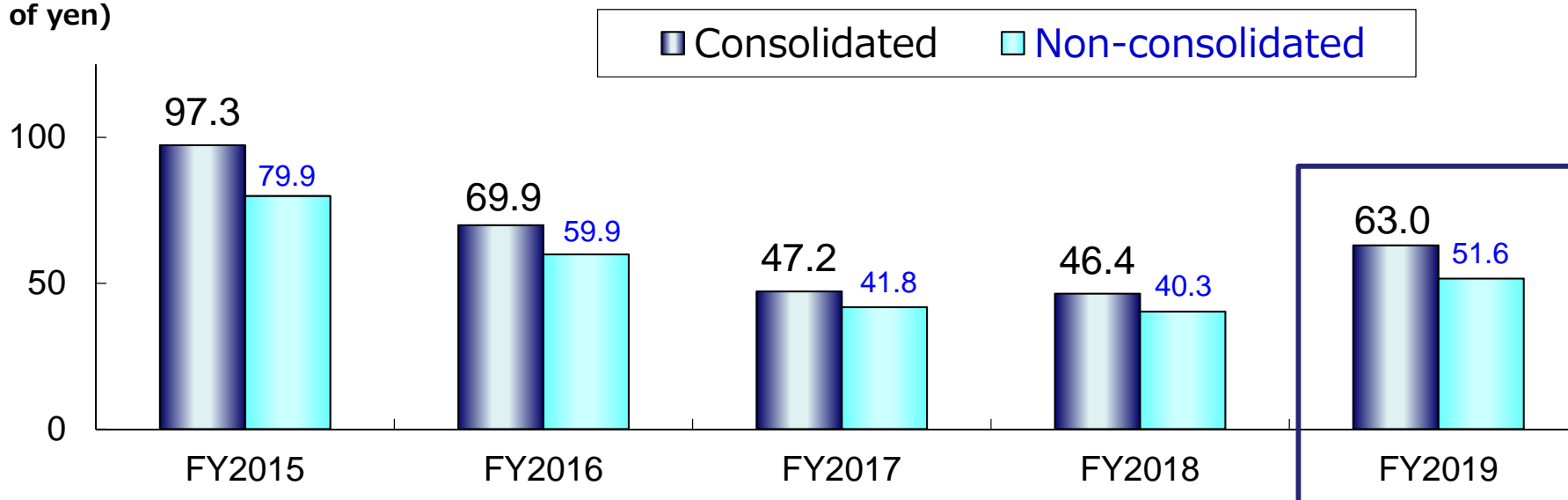
(billions of yen)



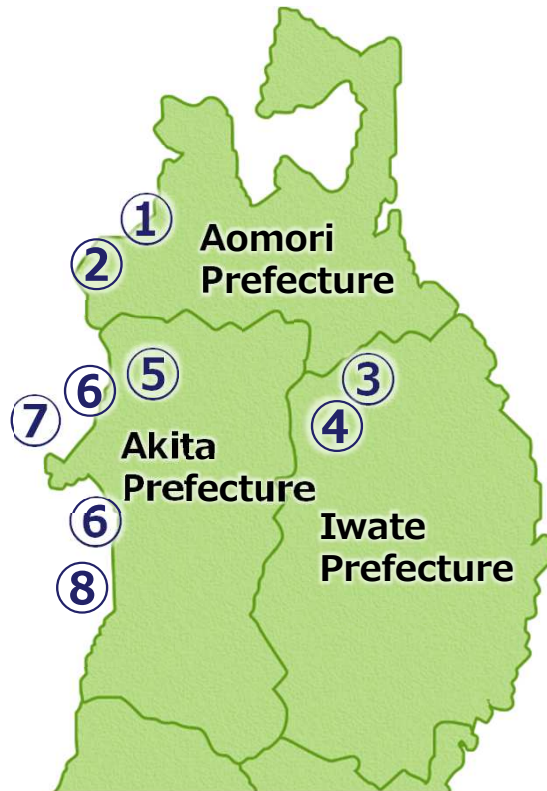
Note : Red line shows operating revenue (consolidated) excluding time lag between fuel cost and fuel cost adjustment charges.

## ■ Net Income or Net Income Attribute to Owners of Parent

(billions of yen)



## ■ Participation in Wind Power Business in Northeastern Tohoku



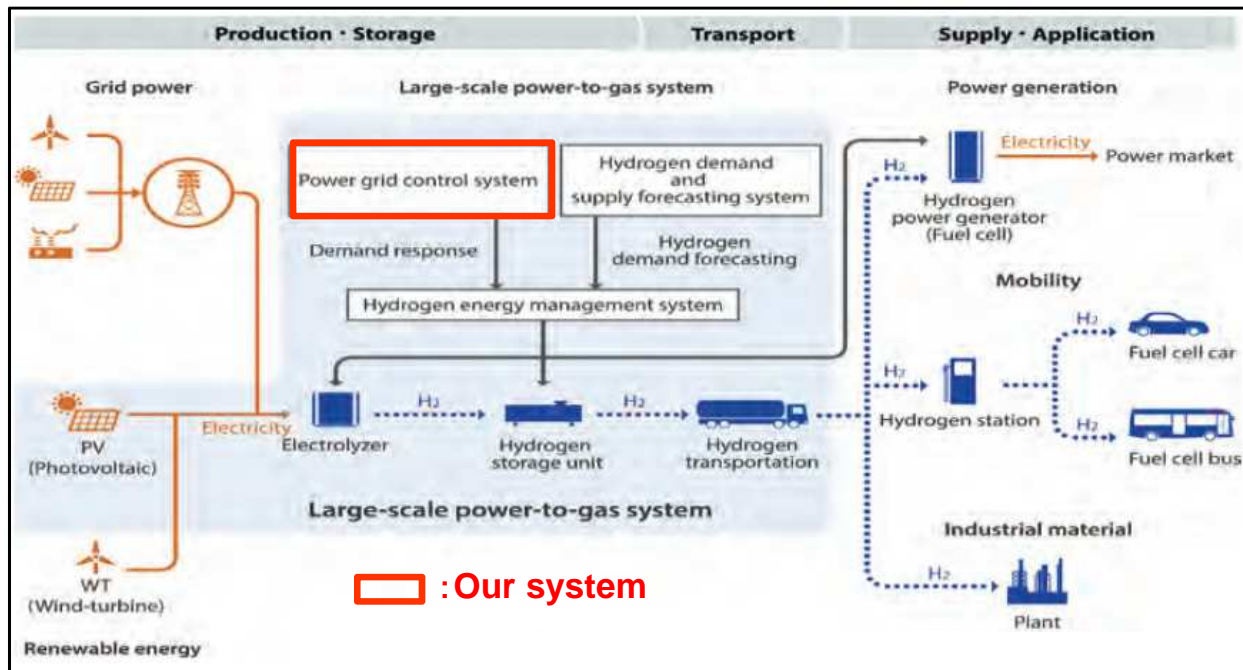
	Project name	Business Operator	Output	Scheduled Commercial Operation Date
①	Tsugaru Offshore Wind	Green Power Nishitsugaru Offshore G.K.	Approx. 480MW	After 2028FY
②	Fukaura Wind	Green Power Fukaura G.K.	Approx. 70MW	After 2024FY
③	Inaniwa Takko	Green Power Inaniwa Takko G.K.	Approx. 100MW	After 2025FY
④	Inaniwa Wind	Inaniwa Wind GK	Approx. 100MW	After 2025FY
⑤	Noshiro-Yamamoto Regional Wind	Shirakami Wind GK	Approx. 100MW	After 2023FY
⑥	Akita and Noshiro Port Offshore Wind	Akita Offshore Wind Corporation	Approx. 140MW	At the end of 2022
⑦	Northern Akita Offshore Wind	Northern Akita Offshore Wind Power LLC.	448MW (Max)	After 2025FY
⑧	Akita Yurihonjo Offshore Wind	Akita Yurihonjo Offshore Wind GK	Approx. 700MW	TBD

## ■ Construction of the world's largest-class hydrogen production facility, Fukushima Hydrogen Energy Research Field (FH2R) was completed.

– This project aims to establish low-cost green hydrogen production technology –

Initiated by the New Energy and Industrial Technology Development Organization (NEDO), Toshiba Energy Systems & Solutions Corporation (Toshiba ESS), Iwatani Corporation, and Tohoku Electric Power Co., Inc., the construction of Fukushima Hydrogen Energy Research Field (FH2R), which had been under construction in Namie town, Fukushima Prefecture since 2018, was completed at the end of February. The facility is equipped with a renewable energy-powered 10MW-class hydrogen production unit, the largest-class in the world. Its verification operation will be launched in July.

- FH2R can produce as much as 1,200 Nm<sup>3</sup> of hydrogen per hour (rated power operation) using renewable energy. Renewable energy output is subject to large fluctuations, so FH2R will adjust supply and demand in the power grid in order to maximize utilization of this energy while establishing low-cost, green hydrogen production technology.
- Hydrogen produced at FH2R will be used for power stationary hydrogen fuel cell systems and support the mobility of fuel cell vehicles and buses, etc.



## Fukushima Hydrogen Energy Research Field (FH2R) which was completed





- We proactively introduced new technologies in order to steadily and efficiently maintain transmission facilities located in a wide area.
- With using digital technology such as drone, IoT, and AI, we engage in making our maintenance activities more advanced and efficient.

## <Drone>

### **【Using for inspection】**

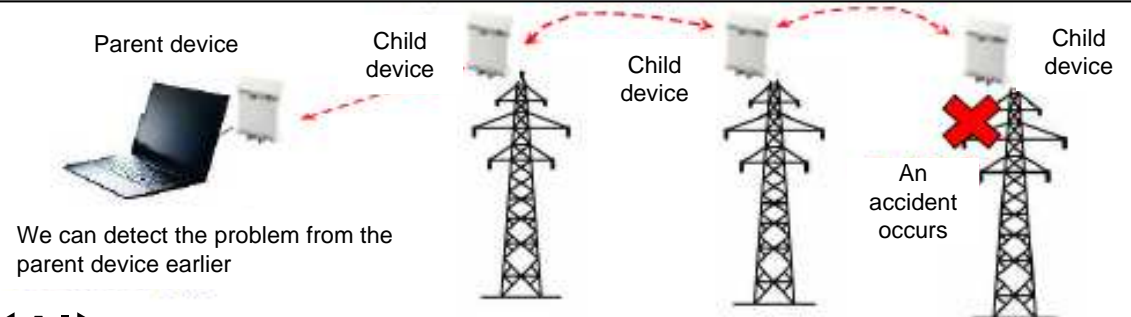
We're now examining to introduce drone for inspecting transmission wires and steel towers (Verification test for transmission inspection August 2019)



## <IoT>

### **【Remote monitoring equipment by using sensor or new communication technology】**

By using IoT technology (low power, wide area communication), we collect operation information from child device and remotely monitor all the facilities and thereby detect the site earlier if any accidents occur.



## <AI>

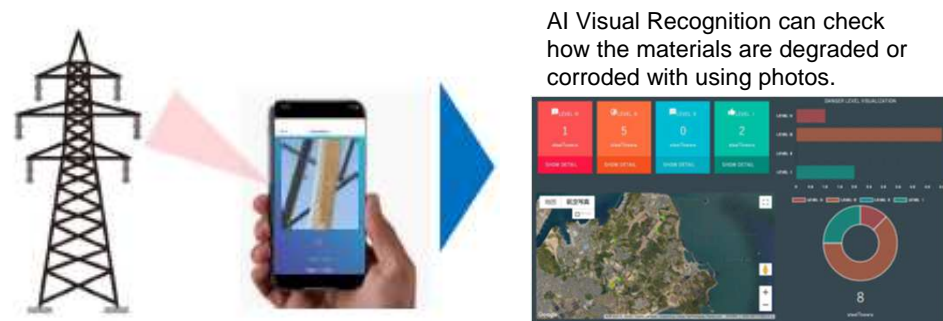
### **【Collecting information at the time of disaster】**

Promptly checking the situation in the restricted access area. (The area hit by landslide due to typhoon No. 19 on October 2019)



### **【System development utilizing AI】**

By introducing AI that determines the degree of corrosion deterioration of tower members by image recognition, we support the formulation of a rational repair plan that accurately reflects the corrosion situation



## ■ Efforts to Improve Management Efficiency in FY2019

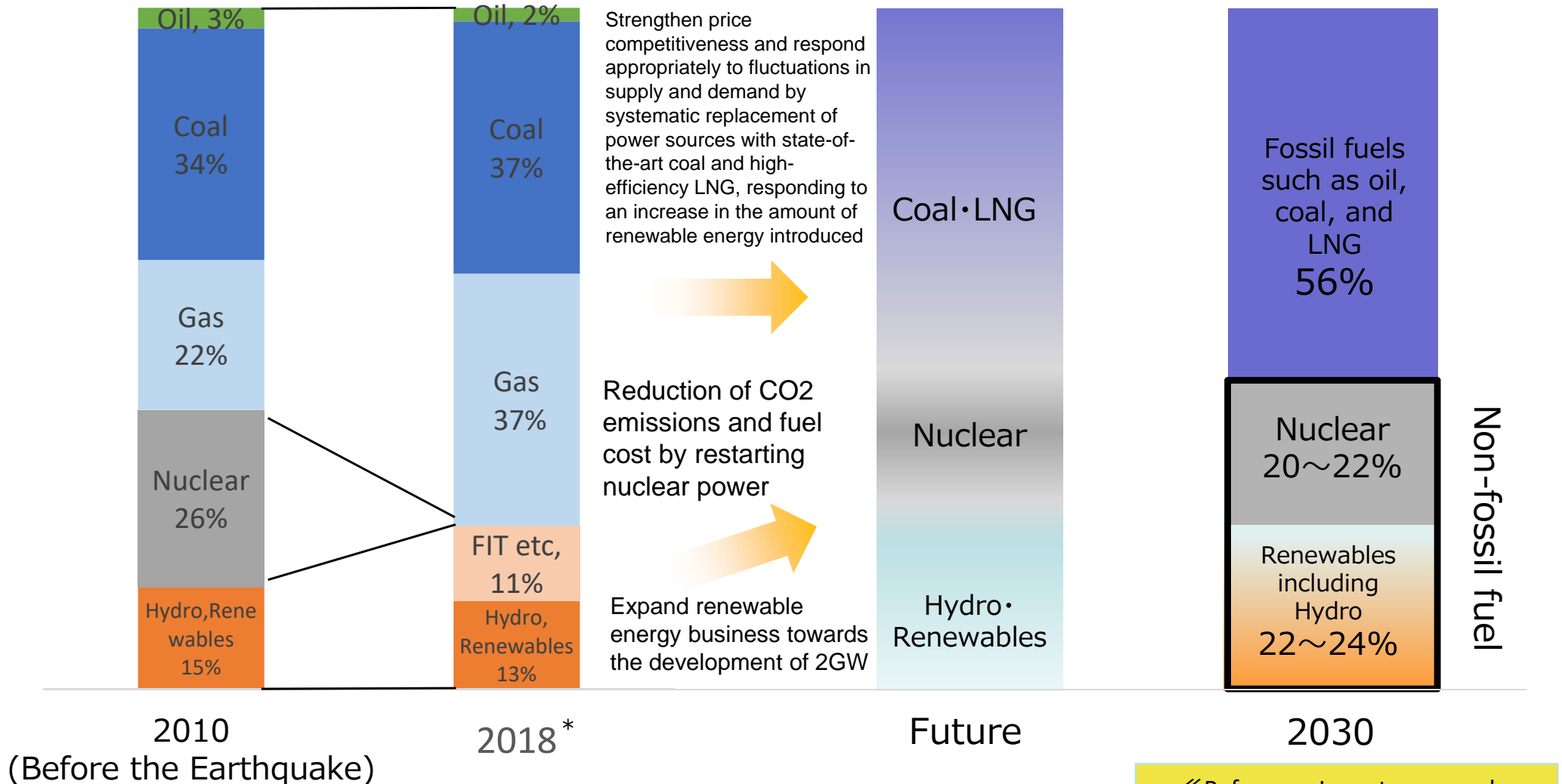
- The actual amount of efficiency improvement in FY2019 was 165.8 billion yen. As a result of accelerating structural cost reduction efforts on the premise of ensuring safety and stable supply, the efficiency improvement amount taken into account at the time of approval for price increase exceeded 113.9 billion yen (FY2013-2015 average).

### Results in FY2019

(billions of yen)

Items	Cost reduction in FY2019	【Reference】 Cost reduction target included in our rate base
		Average of rate base between FY2013 to FY2015
Personnel	17.5	40.3
Fuel and Power purchased	83.3	31.6
Capital expenditure	18.8	9.5
Maintenance	27.0	13.5
Others	19.2	19.0
Total	165.8	113.9

➤ We aim for a balanced power portfolio (power procurement) that is not excessively dependent on specific power sources and fuel types, and also take into account the viewpoints of securing price competitiveness and ensuring adjustment capabilities when expanding the introduction of renewable energy, by planned replacement with state-of-the-art coal-fired and high-efficiency LNG-fired, promoting nuclear restart, expanding introduction of renewable energy.



\*FY2019 results are currently being aggregated

« Reference Long-term supply-demand outlook (energy mix) »  
Decided by METI in July 2018



# Current Status of Conformity Assessments (1/2)

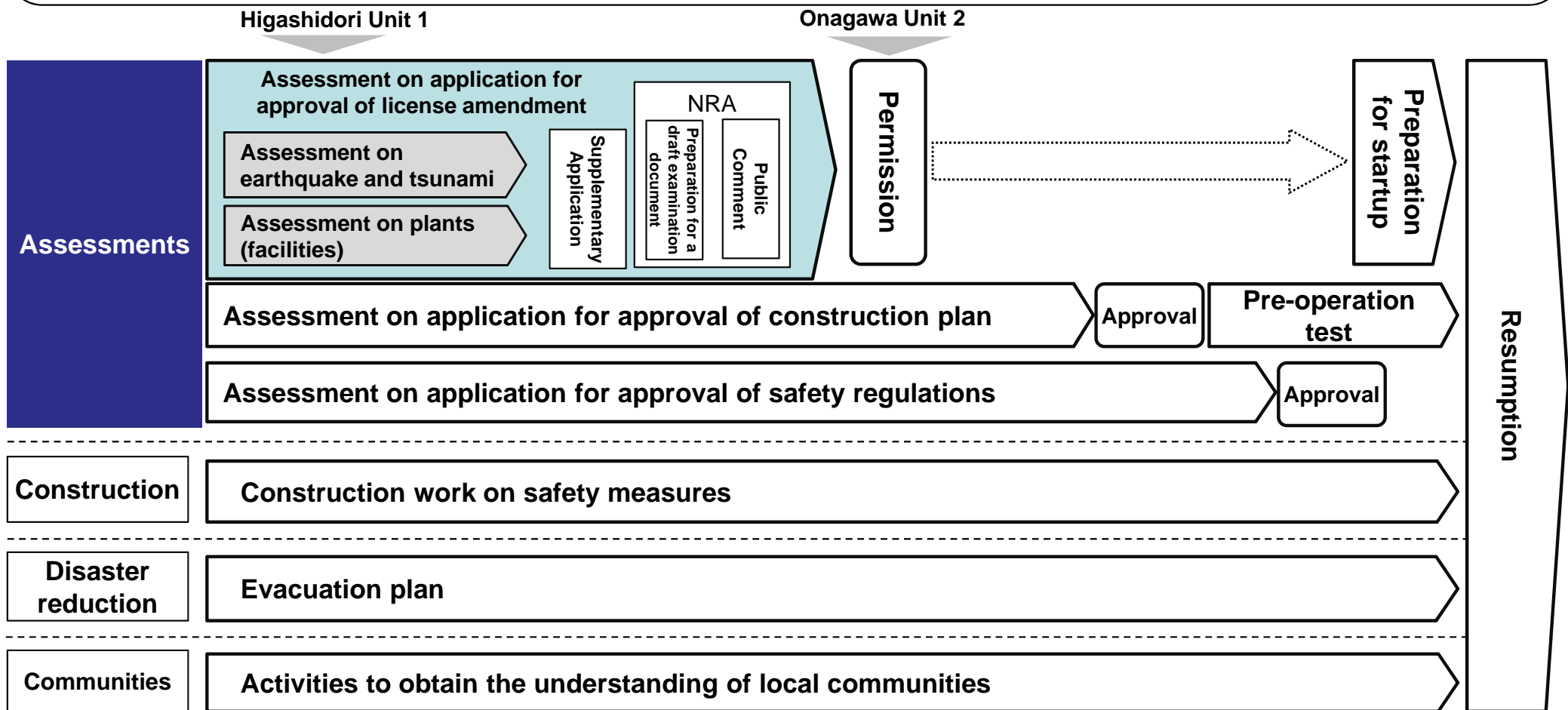
(As of March 31, 2020)

		FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	Number of conformity assessment meetings
Onagawa Unit 2	Assessment of plants (facilities)		▼Application (Dec. 2013)		Full-fledged conformity assessment (from Oct. 2017)	On-site survey (Nov. 2017)	Draft examination document was approved (Nov. 2019)	Authorized permission of license amendment (Feb. 2020)	176
	Assessment of earthquake and tsunami			▼On-site survey (Jan. 2015)	▼On-site survey (Jun. 2016)				
Higashidori Unit 1	Assessment of plants (facilities)		▼Application (Jun. 2014)						22
	Assessment of earthquake and tsunami		▼Submission of report on additional geological survey (Jan. 2014)	▼Completion of experts' evaluation statement (Mar. 2015)	▼Supplementary survey of faults in the premises (from Oct. 2015)	▼Additional supplementary survey of faults in the premises (from Apr. 2016)	▼On-site survey (Nov. 2017)	▼Supplementary survey of faults within and around premises (from Mar to Oct. 2019)	

## Conformity Assessments and Process of Resumption of Nuclear Power Reactors

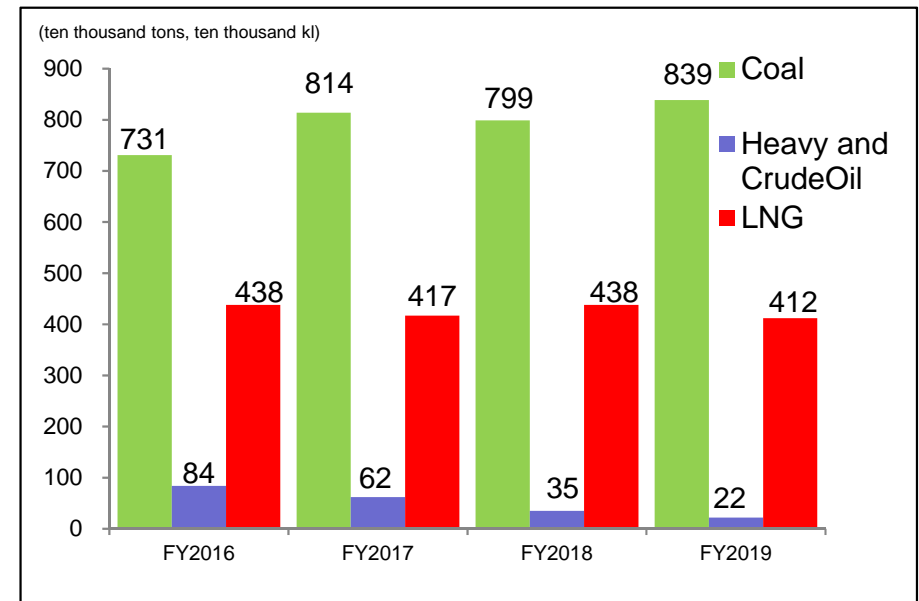
(as of March 31, 2020)

- 27 units (11 companies including us) submitted applications for conformity assessments.
- Onagawa Unit 2 was authorized permission of license amendment on 26 February 2020. Next step is Assessment on application for approval of construction plan where it is confirmed whether the detailed design policy of the reactor equipment, etc. is consistent with the application for permission of license amendment.
- 12 pressurized water reactors (PWR, 3 companies) were authorized permission of license amendment, and 9 of them were approved their safety and resumed operation.
- Concerning boiling water reactors (BWR), excluding our Onagawa Unit 2, Tokyo Electric Power Company Holdings, Inc.'s Kashiwazaki-Kariwa Unit 6 and 7 were authorized permission of license amendment in December 2017, Japan Atomic Power Company's Tokai No.2 were authorized permission in September 2018. (Construction plan of Tokai No.2 was approved in October 2018.)

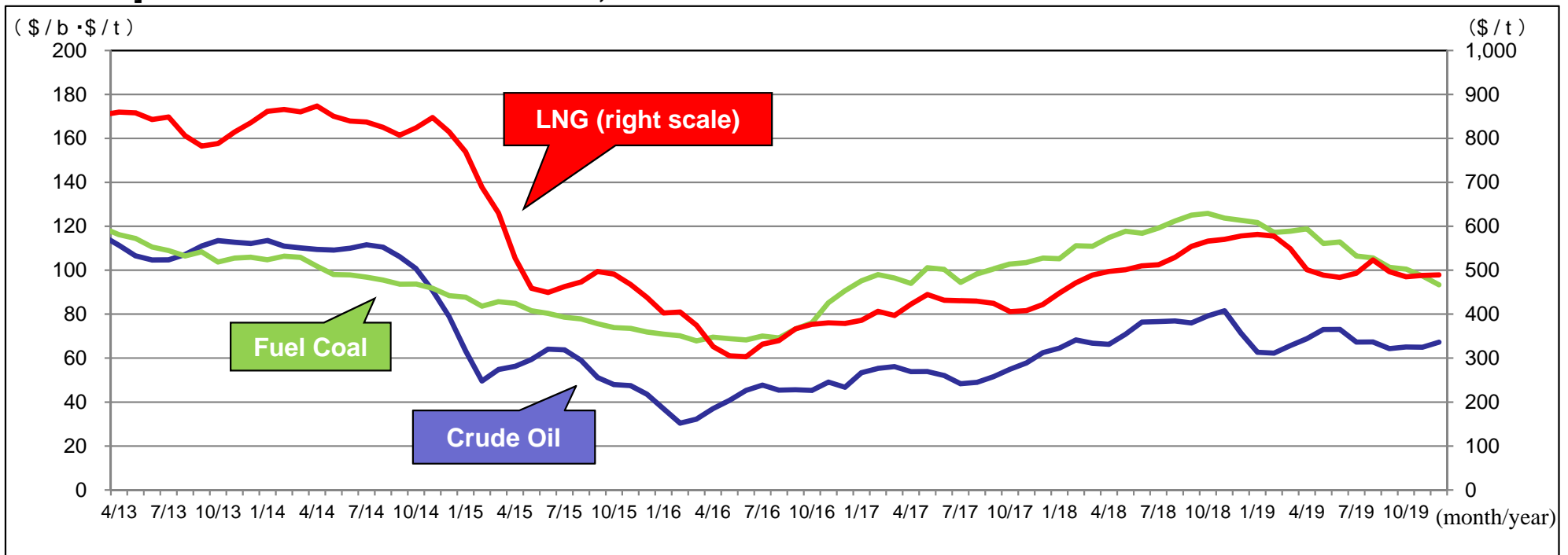


## Fuel Consumption

	FY2019 (A)	FY2018 (B)	Change (A) - (B)
Coal (ten thousand tons)	839	799	40
Heavy and Crude Oil (ten thousand kl)	22	35	(13)
LNG (ten thousand tons)	412	438	(26)



## [Reference] Historical CIF Prices of Crude Oil, Fuel Coal and LNG

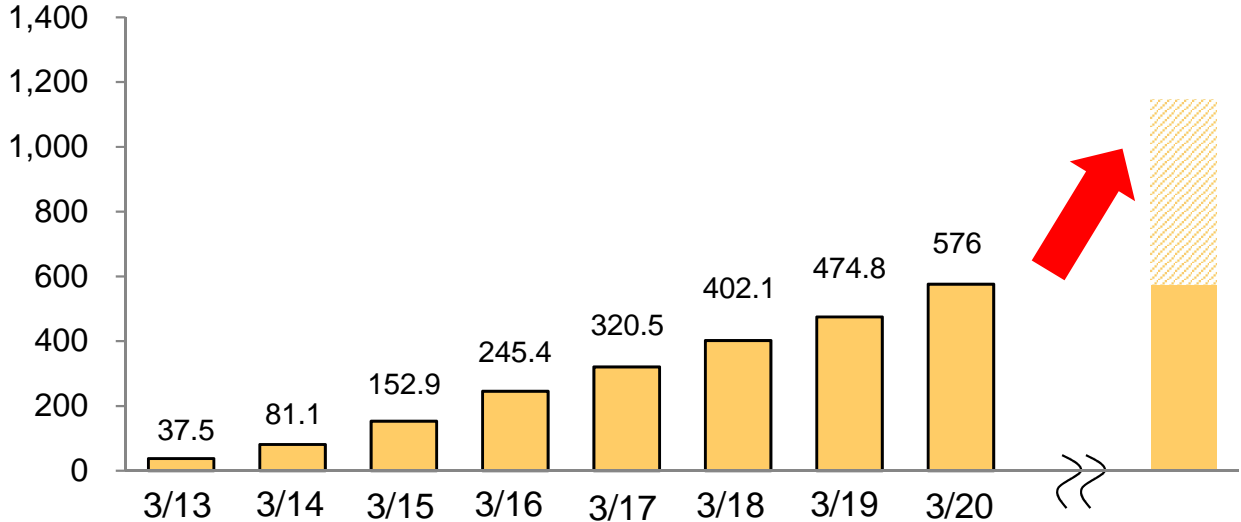


## ■ Current and Expected Grid Access Volume of Solar and Wind within our Service Area

(as of March 31, 2020)

### [Solar]

[10 megawatts]

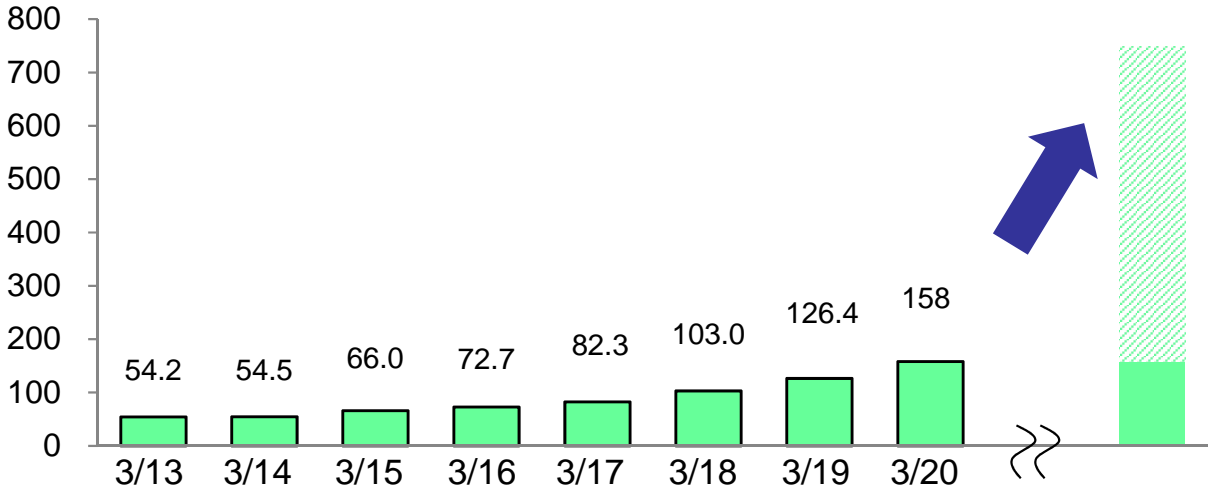


Expected grid access volume: 5,690 megawatts

(Reference :  
New rule: 4,300 megawatts)


### [Wind]

[10 megawatts]



Expected grid access volume: 5,900 megawatts

(Reference :  
New rule: 5,410 megawatts)



(Note)

This presentation solely constitutes reference material for the purpose of providing the readers with relevant information to evaluate our company.

The information contains forward-looking statements based on assumptions and projections about the future with regard to our company. As such, the readers are kindly asked to refrain from making judgment by depending solely on this information.

The forward-looking statements inherently involve a degree of risks and uncertainties. Consequently, these risks and uncertainties could cause the actual results and performance to differ from the assumed or projected status of the company.

Tohoku Electric Power Co., Inc. hereby disclaim any responsibility or liability in relation to consequences resulting from decisions made by investors.