Business Activities

The mission of our Group is to contribute to comfortable, safe, and secure lifestyles and to the Shikoku region's development through the provision of high-quality services, centered on energy, that interconnect with the lives that people lead. Through its various business activities, our Group is working to fulfill this mission.

Priority Initiatives for Fiscal 2018

In fiscal 2018, we are pursuing specific initiatives in keeping with the following three key issues.

Expansion of Electricity Sales

Further enhance rate plans

Detail P. 18

Expanded free online membership services

Memberships
FY2017 (performance) 198,000 ➔
FY2018 (target) 300,000

Detail P. 19

Offer monitoring and assistance services to deliver safety to the lives of our customers

Detail P. 19

Expanded of wholesale sale

Volume of electricity sold to other companies
FY2017 (performance) 4,900 GWh

Detail P. 20

Develop energy solution services for corporate clients

FY2017 (performance) 2,425 proposals
(energy conservation, facility maintenance measures, etc.)

Detail P. 21

Exhaustive Improvement of Business Efficiency

Maintain safe and stable operation at Ikata Nuclear Power Station and make safe and steady progress in decommissioning of facilities

Detail P. 23

Improve generation efficiency in thermal power by replacing Saijo Unit No. 1

FY2018
Environmental impact assessment procedures underway

Detail P. 26

Continue conducting stable and economical fuel procurement

Volume of coal procured by YN Energy
FY2017 (performance) 1,040,000 tons ➔
FY2018 (forecast) 1,110,000 tons

Detail P. 27

Maximize use of renewable energy

Increases in generation capacity of hydropower plants
Aggregate from FY2000–2017 28,430 kW
Plan for FY2018–2020 2,200 kW

Detail P. 28

Decrease material procurement costs

Increase rate of material procurement through competitive bids
FY2017 (performance) 27% ➔
FY2018 (target) 30%

Detail P. 32

Creation and Expansion of Profit Sources Outside of Electric Power Business

Expanded sales in the telecommunications business

May 2018
Commence expansion of Powerico data center

Detail P. 33

Expanded the gas sales business in Shikoku

April 2018
Establish Niihama LNG Co., Ltd., through joint investment from five companies

Detail P. 34

Acquired new projects in overseas businesses

2018 (forecast)
Commence commercial operation of solar power generation project in Chile

2021 (forecast)
Commence commercial operation of natural gas-fired power generation project in the United States

Detail P. 35

Developed new businesses by utilizing Groupwide management resources and partnering with non-Group companies

Detail P. 36

Priority Initiatives 1

Expansion of Electricity Sales

We are taking steps to augment our sales capabilities by bolstering our lineup of rate plan and service offerings, expanding electricity sales outside of Shikoku, and developing solution services.

Augmentation of Sales Capabilities

The complete liberalization of the retail electricity market in April 2016 resulted in increased competition between operators in this market. In response to this trend, we are working to augment our sales capabilities by enhancing rate plans as well as by stepping up non-price-related initiatives, such as providing free membership online services, monitoring and assistance services for residential customers, and energy solution services for corporate clients. We thereby aim to continue to be customers' most trusted energy provider.

Moving forward, we aim to bring the benefits of having a contract with us to a new level. To achieve this, we will take full advantage of our business partnerships, combined with the full capability of our Group, and relay this into new value with appeal for our customers.

Enhancement of Rate Plans

We are enhancing our lineup of rate plans with options that enable customers to choose based on the needs of their diverse lifestyles in order to help provide residential customers with a sense of value. In April 2017, we introduced the *Otoku* e-Plan, a rate plan that offers discounted rates cheaper than the meter-rate lighting A plan for electricity used after total usage volumes have exceeded 300 kWh.

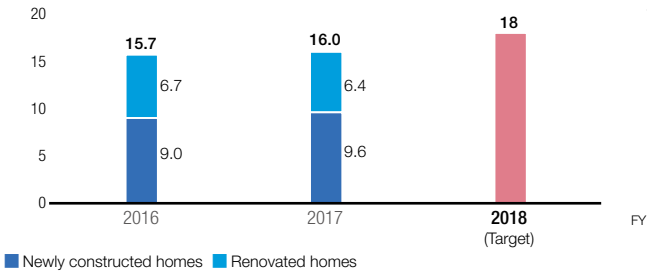
From October 2018 we also intend to introduce two new plans. One, the *Denka* e-Plan, applies a *Denka* discount for homes that adopt all-electric homes. The other, the Re-energy Premium Plan delivers CO_2-free electricity generated by our own renewable power supply.

Major Rate Plans for Private Customers (from October 2018)

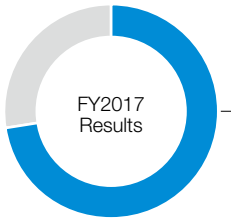
		Plan Merits
Standard Customers	*Otoku* e-Plan	Discounted rates cheaper than the meter-rate lighting A plan for electricity used after total usage volumes have exceeded 300 kWh.
Customers Living in All-Electric Homes	NEW!! *Denka* e-Plan	A plan perfect for all-electric homes which offers a *Denka* Discount of up to 10% on electricity rates for using IH cooking heaters and EcoCute devices.
Environment-Conscious Customers	NEW!! Re-energy Premium Plan	A plan where the CO_2 emission coefficient of electricity used is reduced to zero.

Highly Affordable Rate Plans (in Japanese only)
http://www.yonden.co.jp/kouri/otokulp/

Ratio of All-Electric Homes



Ratio of All-Electric Homes Among Newly Built Houses



Ratio of all-electric homes
72.7%

Number of contracts with all-electric homes in Shikoku:
356,000 (aggregate as of March 31, 2018)

Priority Initiatives -1 Expansion of Electricity Sales

Yonden Concierge Free Membership Online Service

We launched the Yonden Concierge free membership online service for customers in March 2015.

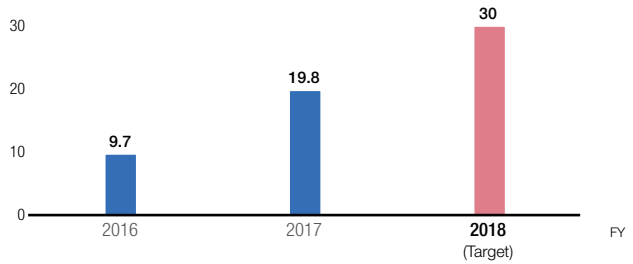
The Yonden Points service is comprised of a rate-linked loyalty point system that allows customers to accumulate points by paying their monthly electricity bills. We are expanding the range of affiliates with whom these points can be exchanged in order to respond to a wider range of customer needs.

In fiscal 2017, we expanded the scope of options for Yonden Point use to include such community-rooted options as donations to various groups, such as professional sports teams that call Shikoku home, as well as gift certificates that can be used at local supermarkets. Thanks to some new additions, these points can now also be converted into air miles with affiliated airlines, or used to pay fees associated with the Pikara Optical Cable Internet Service of Group company STNet, Inc. Through such efforts, we are working to provide our customers with a wider range of appealing, money-saving services.

For more details on the services currently provided through "Yonden Concierge" (in Japanese only).
http://www.yonden.co.jp/y-con/

Yonden Concierge Members

10 thousand members



Yonden Points (rate-linked loyalty point system)

Enhancement of Service Lineup for Residential Customers

We are collaborating with other companies as we enhance our lineup of optional services for responding to the diverse needs customers experience in their everyday lives.

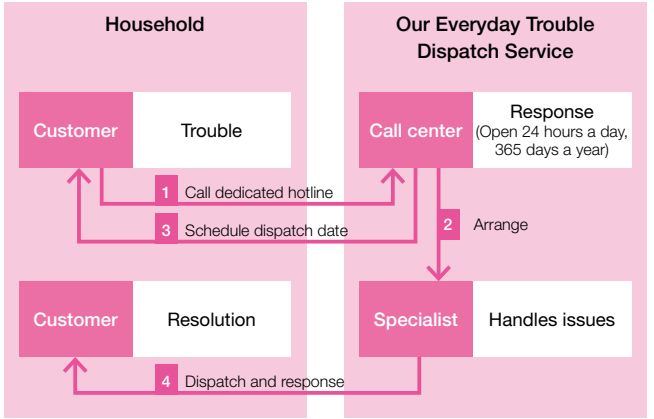
Anshin Support Service

We provide our *Anshin* Support Service. In this smart meter-powered service, we deliver a sense of security to customers by sending them an email each morning to inform them that the electricity usage volume of family members living separately had not fluctuated beyond a predetermined threshold in the previous day.

Everyday Trouble Dispatch Service

We provide our Everyday Trouble Dispatch Service in which we respond to troubles related to plumbing, locks, glass, and other areas of everyday life. Based on customer requests, we will arrange for a specialist to be dispatched to a customer's home to respond to the troubles they face. These services are available at rates lower than would normally be required to hire such specialists.

Everyday Trouble Dispatch Service Usage Flow



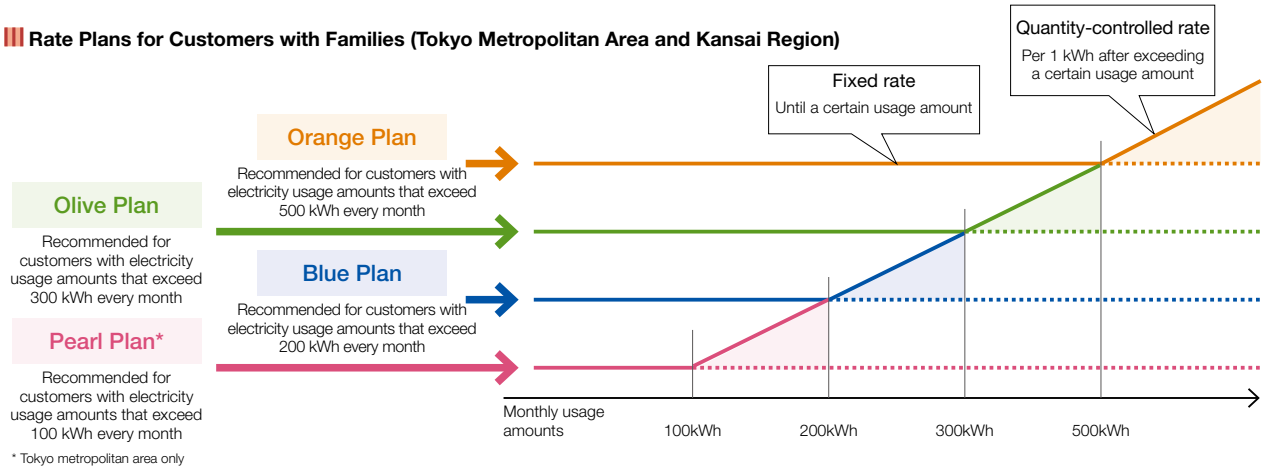
Priority Initiatives -1 Expansion of Electricity Sales

Sales Expansion in Regions Outside of Shikoku

On April 1, 2016, we commenced the retail sale of electricity in the Tokyo metropolitan area and the Kansai region. We have been systematically deploying a lineup of services for customers in these areas, which currently consists of multiple rate plans that can be selected based on usage patterns. At the moment, we are reinforcing sales systems and approaching new customers to expand sales while also developing rate plans matched to customer needs.

In addition, we provide an assortment of appealing services to our customers in the Tokyo metropolitan area. These services include an economy-rate plan for customers with low electricity use and a cash-back campaign for customers who apply through a rate-comparison site.

Rate Plans for Customers with Families (Tokyo Metropolitan Area and Kansai Region)

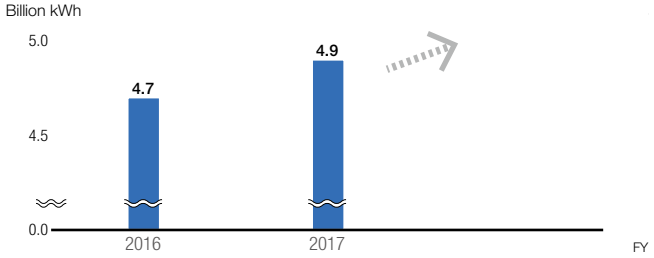


At the same time, we will improve profitability by expanding sales to other companies and through the Japan Electric Power Exchange and by constructing an optimal supply portfolio to minimize power procurement costs.

Information on Rate Plans for Customers in the Tokyo Metropolitan Area (in Japanese only)

http://www.yonden.co.jp/kouri/menu/extra/tokyo.html

Volume of Electricity Sold to Other Companies



Priority Initiatives -1 Expansion of Electricity Sales

Energy and Other Solutions Services

Our Group is leveraging its comprehensive capabilities to provide a diverse range of highly specialized solutions that address the needs of customers in the field of energy as well as in other business fields.

For example, we have earned much praise from medical, welfare, and commercial facilities by proposing facility solutions. For such customers, we offer electric air conditioners and water heaters that utilize highly efficient electric heat pumps to reduce energy use, costs, and CO_2 emissions. We also provide kitchen appliances that truly exemplify the benefits of electric appliances with their high levels of safety, comfort, and cleanliness.

Furthermore, we are carrying out a wide range of consulting services for production processes at factories and other locations. These include examining customer energy use to propose operating procedures that more effectively utilize existing facilities or refitting existing facilities with more efficient equipment. In addition, we also provide a broad range of consulting services on the introduction of measurement systems to improve efficiency in energy use and on environmental measures.

Going forward, we will fully leverage our technological capabilities and knowhow to provide solutions services that improve energy efficiency and product quality in order to make our Group into an entity that truly serves customers' needs.

Service offerings

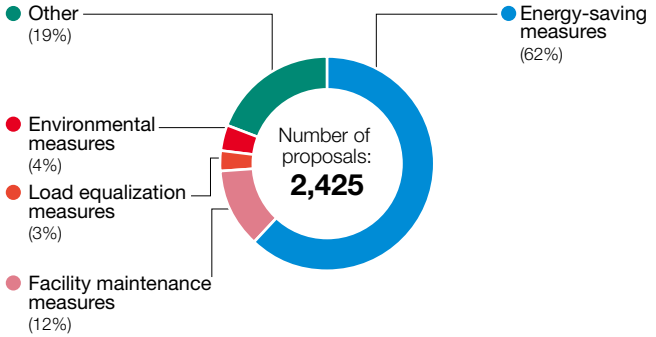
- Upgrades to heat pumps and other highly efficient equipment that make effective use of electricity
- Environmental measures and efficiency improvement utilizing existing equipment
- Factory production process productivity improvements
- Introduction of measurement systems to facilitate more effective energy use through monitoring, etc.

Initiative Example: Introduction of Exhaust Heat Recovering Heat Pump at Hot Spring Facility

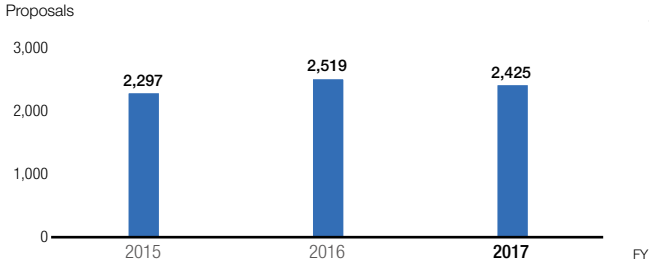
- The client's facility previously utilized a system that combined liquid petroleum gas boilers and heavy fuel oil A boilers to supply heated water. We proposed the introduction of an exhaust heat recovering heat pump that can take advantage of the heat expelled by the hot springs to heat water.
- For the introduction of the heat pump, we utilized subsidies for energy-saving renovations offered by the Ministry of Land, Infrastructure, Transport and Tourism. In addition, we were able to carry out the project as an energy service company project guaranteeing energy-saving benefit, and thereby helped the client realize massive savings in both energy and costs.

Heat-pump hot air generator

Status of Energy Solution Activities (Fiscal 2017)



Number of Energy Solution Proposals



Priority Initiatives 2

Exhaustive Improvement of Business Efficiency

We strive to optimize our supply capacity and improve business efficiency in order to realize transformations in our business and supply structures that contribute to higher profitability.

Nuclear Power Generation

Circumstances Pertaining to Nuclear Power and Polices for Ikata Nuclear Power Station

The long-term supply and demand projections announced by the Japanese government in July 2015 indicated a clear position for nuclear power in Japan's power mix that will call for 20%–22% of Japan's power to come from this source up until fiscal 2030.

Although we have decided to decommission Ikata Unit No. 1 and Unit No. 2, we will continue to utilize Ikata Unit No. 3 as a core power source supporting our ability to provide Shikoku with a stable supply of low-cost power with safety as our top priority.

Decommissioning of Ikata Unit No. 2

Ikata Unit No. 2 has continued to function as a core power source providing Shikoku with a stable supply of low-cost power since it commenced operation in March 1982. However, operations at this unit were halted in January 2012. In the midst of this extended period of halted operation, we evaluated the measures that would be required to bring the unit in line with new standards and continue operation after the 40th year of its establishment.

It was found that this unit would require substantial seismic resistance work entailing a prolonged period of construction to increase the seismic resistance of the turbine facilities, and necessitate rebuilding emergency seawater intake equipment as well as the implementation of other crucial improvements. Considering these requirements as well as the potential operating period of this facility after recommencement, output levels, and various other factors, it was decided that Ikata Unit No. 2 would be decommissioned, and operations were thus terminated in May 2018.

Timetable of Operations at the Ikata Nuclear Power Station

April 2011	Operation at Unit No. 3 halted (commencement of 13th periodic inspection)
September 2011	Operation at Unit No. 1 halted (commencement of 28th periodic inspection)
January 2012	Operation at Unit No. 2 halted (commencement of 23rd periodic inspection)
July 2013	Application submitted to the Nuclear Regulation Authority to confirm compliance of Unit No. 3 with new regulatory standards
May 2016	Operation of Unit No. 1 terminated
September 2016	Normal operations at Unit No. 3 recommence
May 2018	Operation of Unit No. 2 terminated

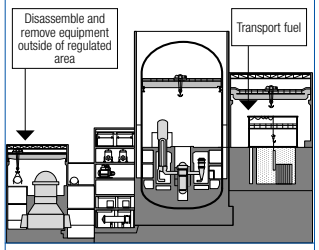
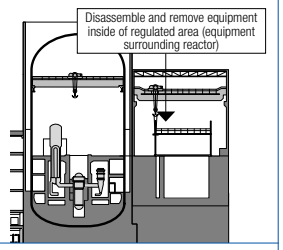
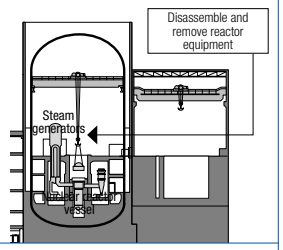
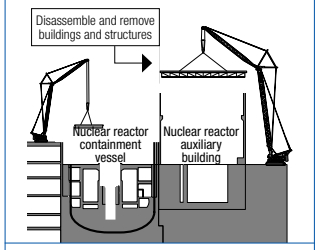
Priority Initiatives -2 Exhaustive Improvement of Business Efficiency

Initiatives Related to the Decommissioning of Ikata Unit No. 1 and Unit No. 2

In December 2016, we submitted an application for permission to decommission Ikata Unit No. 1 to the Nuclear Regulation Authority based on the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors. This application was approved in June 2017. Decommissioning was commenced in September 2017 and is being carried out over a period of 40 years based on our established plan. Safety is maintained as our top priority through the entire process.

We are currently in the process of examining and formulating a decommissioning plan for Ikata Unit No. 2 in accordance with the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors, and we plan to make steady progress in the necessary procedures going forward.

Decommissioning Work Process of Ikata Unit 1

Phase 1 Preparation for disassembly	Phase 2 Disassembly and removal of equipment surrounding reactor	Phase 3 Disassembly and removal of reactor equipment	Phase 4 Disassembly and removal of buildings and structures
Approx. 10 years (~fiscal 2026)	Approx. 15 years (~fiscal 2041)	Approx. 8 years (~fiscal 2049)	Approx. 7 years (~fiscal 2056)
			
Commence transportation of fuel and disassembly and removal of secondary system equipment (pumps, tanks, etc.)	Commence disassembly and removal of primary system equipment (pumps, tanks, etc.)	Disassemble and remove major components of primary system equipment (nuclear reactor vessel, steam generators, etc.)	Disassemble and remove nuclear reactor containment vessel and reactor auxiliary building

Installation of Dry Cask Storage Facility for Spent Fuel

We will perform inspections for installing dry cask storage facility on the site of the Ikata Nuclear Power Station for use in temporary storage of fuel used at the power station prior to transportation to reprocessing facilities.

In May 2018, an application for permission for change in reactor installation license in relation to this installation was submitted to the Nuclear Regulation Authority. At the same time, we issued a request for prior discussion regarding this matter to Ehime Prefecture and the town of Ikata based on safety agreements. We will steadily move ahead with the installation of the dry cask storage facility with the aim of commencing usage in fiscal 2023.

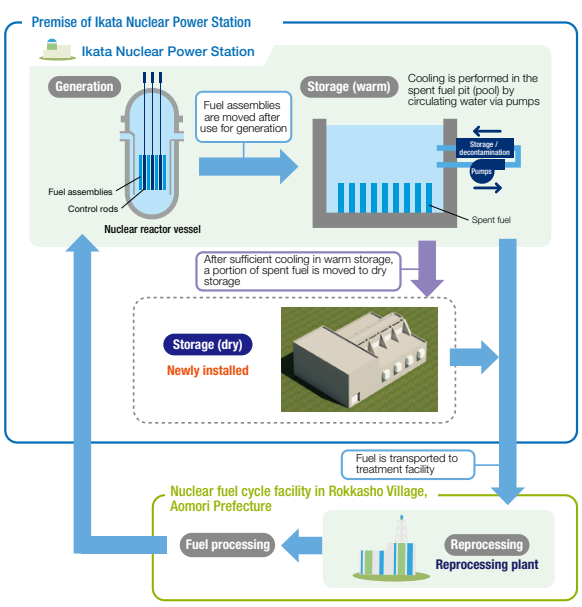
Measures for Spent Fuel

[Facility Details]

Currently, spent fuel is cooled and stored in spent fuel pits (pools) until it is transported to the reprocessing plant.

The dry cask storage facility to be newly installed allow for safer storage of spent nuclear fuel without using water or power for cooling.

The dry casks installed in the dry cask storage facility for storing spent fuel are equipped with four safety functions (sealing function, critical pressure prevention function, shielding function, heat removal function) and can be used for transporting spent fuel outside of power plants without transferring it to a transportation vessel.



Priority Initiatives -2 Exhaustive Improvement of Business Efficiency

Medium- to Long-Term Safety Measures and Optimization of Management and Maintenance at Ikata Unit No. 3

Introduction of Facilities for Dealing with Specific Severe Accidents

We will install facilities for dealing with specific severe accidents (specialized safety facilities) as part of our safety provisions at Ikata Unit No. 3. These facilities are expected to be completed in fiscal 2020. The establishment of specialized safety facilities is required in the new regulatory standards. These facilities are to be equipped with functions to prevent damage to the nuclear reactor containment vessel in preparation for loss of the cooling function of the nuclear reactor and damage to the nuclear reactor core. This type of damage can be caused by a large-sized aircraft intentionally colliding with the reactor building or any other acts of terrorism. In addition, specialized safety facilities provide backup to existing safety equipment.

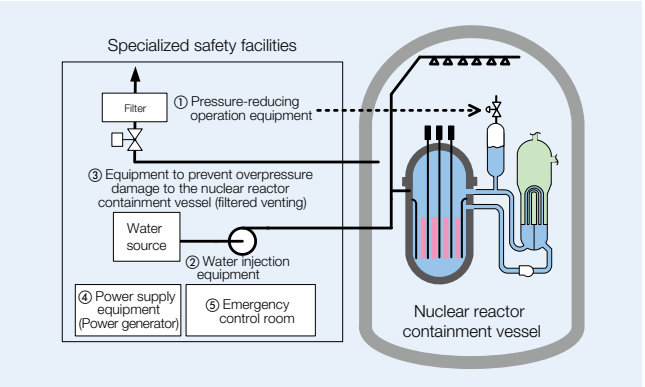
Adjustment of Operational Management and Maintenance

At the Ikata Nuclear Power Station, we monitor the operational status of facilities on a 24-hour-a-day basis; conduct regular inspection patrol; and every 13 months, stop operations of the power station to conduct periodic inspections in accordance with the law.

During the periodic inspection started in October 2017, we are conducting careful inspections and examinations and taking additional measures for increasing safety at the Ikata Nuclear Power Station. From a preventative maintenance standpoint, we will replace the lid on the upper portion of the nuclear reactor containment vessel. Meanwhile, measures for protecting against volcanic ash will be implemented, such as the installation of a volcanic ash filter that can be attached to the intake silencers of emergency diesel power generators.

Detailed information on Safety Measures at the Ikata Nuclear Power Stations (in Japanese only)
http://www.yonden.co.jp/energy/atom/ikata/index2.html

Overview of Specialized Safety Facilities



① **Pressure-reducing operation equipment**
Pressure-reducing operation equipment controls existing release valves to lower pressure within the nuclear reactor.

② **Water injection equipment**
Water injection equipment injects water into the nuclear reactor vessel and containment vessel from the water supply of the specialized safety facilities.

③ **Equipment to prevent overpressure damage to the nuclear reactor containment vessel (filtered ventilation equipment)**
Filtered ventilation equipment lowers pressure by allowing air to escape from within the nuclear reactor containment vessel. The air that is released passes through a filter, thereby reducing the amount of radioactive materials emitted.

④ **Power supply equipment (Power generator)**
Power supply equipment (Power generator) provides electricity to water injection equipment and other equipment.

⑤ **Emergency control room**
The emergency control room monitors the conditions of the power plant and operates water injection equipment.

Proactive Collaboration with Other Nuclear Power Providers

We are currently engaged in proactive collaboration with other nuclear power providers. Specifically, cooperation is pursued with five companies located in West Japan while technical partnerships have been formed with four companies possessing pressurized water reactors. Through this collaboration, we participate in each other's disaster response drills, share information regarding facility decommissioning and specialized safety facilities, and take part in other initiatives for realizing safer and more reliable nuclear power.

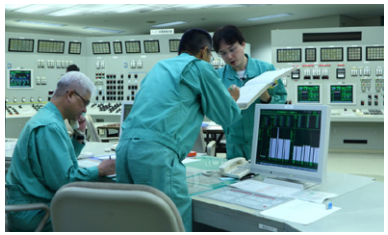
Partnership Agreements with Other Business Operators

	Counterparty	Overview of Agreement
Cooperation regarding nuclear power operations (concluded on August 5, 2016)	Hokuriku Electric Power Co. Kansai Electric Power Co. Chugoku Electric Power Co. Shikoku Electric Power Co. Kyushu Electric Power Co.	• Cooperation during nuclear power accidents • Cooperation during decommissioning • Cooperation when installing specialized safety facilities
Technical partnership for improving the safety of pressurized water reactors (concluded on October 19, 2016)	Hokkaido Electric Power Co. Kansai Electric Power Co. Shikoku Electric Power Co. Kyushu Electric Power Co.	• Safety evaluations • Sharing of operational management and other insight and expertise from overseas, etc. • Investigation and examination of next-generation light-water reactor and other technologies for improving safety at existing reactors

Priority Initiatives -2 Exhaustive Improvement of Business Efficiency

Thorough Training Programs for Operational and Maintenance Staff

We implement thorough training programs geared toward our operational and maintenance staff. At the Nuclear Research & Training Center located in Matsuyama City in Ehime Prefecture, employees learn the proper procedures to be undertaken under normal operating conditions and in a number of simulated emergency situations involving malfunctions or accidents. Utilizing facilities built to the same specifications as those used at the power station, employees improve their skills and knowledge while also conditioning themselves to respond calmly and accurately under even the most extreme circumstances and fostering teamwork.



Operational training using simulator

Notifications to Ehime Prefecture and Town of Ikata Based on Safety Agreements

FY	2013	2014	2015	2016	2017
Class A	2	1	8	1	1
Class B	3	2	0	3	4
Class C	12	17	24	19	15
Total	17	20	32	23	20

Overview of public notification in Ehime Prefecture

Class A (Trouble, etc., that needs to be reported to the government): Immediate public notification
Class B (An abnormal situation at a facility, etc., has occurred within the radiation administrative region): Public notification within 48 hours
Class C (Events other than those covered by classes A and B above): Public notification on the 10th of every month about the previous month's events

Commitment to Information Disclosure through the "Ikata System"

At the Ikata Nuclear Power Station, any situation that deviates from normal operation is immediately reported to the Ehime prefectural government and the town of Ikata based on safety agreements. In September 2012, we expanded the scope of these activities to include the cities of Yawatahama, Ozu, and Seiyo, which are located nearby the town of Ikata. This prompt, highly transparent disclosure approach has become known as the "Ikata System," and has been an important tool in building trusting relationships with local government bodies. Furthermore, we have been expanding the range of entities to which we report "class A" incidents, those defined as requiring immediate disclosure since June 2011. We now report such incidents to all cities and towns in Ehime Prefecture as well as to the prefectural governments of Kagawa, Tokushima, and Kochi.

Fostering of Understanding in the Surrounding Communities

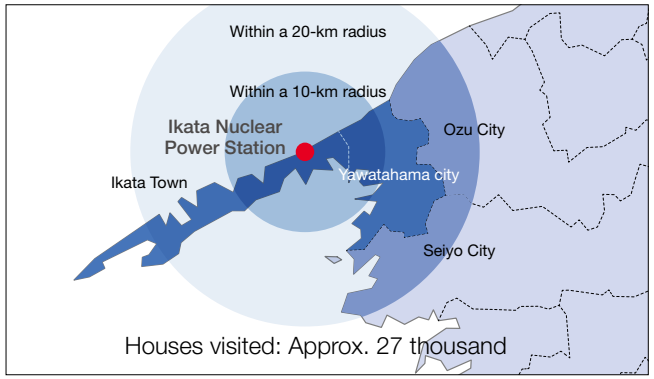
Since 1988, we have been continuously conducting a dialogue initiative in which employees visit the residents in the town of Ikata and the city of Yawatahama to explain safety measures for the Ikata Nuclear Power Station and receive a variety of feedback from residents firsthand.

Beginning in fiscal 2011, aiming to respond to the increased concern from the community about the safety of nuclear power plants, we have expanded the scope of these efforts to include residences located within a 20-km radius of the Ikata Nuclear Power Station.

In fiscal 2017, visits took place in November and December 2017 and were used as opportunities to report on the status of operations at Ikata Unit No. 3, and to explain the safety of the dry cask spent fuel storage facility that we intend to install.

Conversing with the community

Range of Visiting-for-Dialogues Activities



Priority Initiatives -2 Exhaustive Improvement of Business Efficiency

Thermal Power Generation

Pursuit of an Optimal Energy Mix Supply Composition

As we upgrade aged thermal power stations, we are taking steps to improve generation efficiency, diversify power sources, and reduce environmental impacts. Going forward, we will systematically develop an optimal energy mix by undertaking measures such as the halting and retirement of aged thermal power plants based on the long-term outlook for demand and the competitive climate.

Replacement of Saijo Unit No. 1

We plan to replace Saijo Unit No.1 with highly efficient, ultra-supercritical (USC) generation equipment, keeping in mind the long-term utilization of the station as a base source for coal-fired power. We are currently carrying out an environmental impact assessment with the aim of beginning operations in March 2023.

Overview of Saijo Unit No. 1 Replacement Plan

	Current Unit No. 1	New Unit No. 1
Start of operations	November 1965	March 2023 (scheduled)
Output	156 MW	500 MW
Thermal efficiency*1	Approximately 39% (approximately 38%)	More than 45% (more than 43%)
Fuel type	Coal	

*1 Figures for thermal efficiency not enclosed in parentheses represent lower heating thermal efficiency while figures in parentheses represent higher heating thermal efficiency. Lower heating thermal efficiency is calculated by deducting the calorific value of steam from the amount of water used (lower heating value) from the calorific value of the fuel used (higher heating value). Accordingly, lower heating thermal efficiency is less than higher heating thermal efficiency by an amount equivalent to the calorific value of steam from the amount of water.

Introduction of LNG at the Sakaide Thermal Power Station

Following the March 2010 switch to LNG-fired thermal power at Sakaide Unit No. 4, we moved on to replace the equipment of Unit No. 1 and Unit No. 2 with highly efficient LNG combined cycle systems. This move was meant to address the aging of oil-fired thermal power facilities at the Sakaide Thermal Power Station as well as to reduce CO_2 emissions and to establish a foundation as an integrated energy company.

Introduction of LNG at the Sakaide Thermal Power Station

	Unit No. 4	Unit No. 1	Unit No. 2
Start of operations	March 2010*2	August 2010	August 2016
Output	350 MW	296 MW	289 MW
Generation method	Steam power	Combined cycle	Combined cycle

*2 Indicates month and year Unit No. 4 was refitted to use LNG in place of oil, not the date commercial operations commenced

Procedures and Progress of Environmental Impact Assessment Related to Replacement of Saijo Unit No.1

Document on primary environmental impact consideration
(Sent in March 2016, completed in June 2016)

↓

Determination of the assessment method
(Started in September 2016, completed in January 2017)

↓

Surveys of existing conditions
(Started in April 2015, completed in March 2017)

↓

Forecast / Evaluations

↓

Draft environmental impact statement
(Application submitted in April 2018, currently under review)

↓

Environmental impact statement

↓

Implementation of operations

Document on primary environmental impact consideration:
Statement compiling results of evaluations of serious environmental impacts formulated at the stage of deciding equipment locations and making other plans in order to gather opinions from government and other representatives

Determination of the assessment method:
Report compiling the methods to be used for environment assessment surveys, estimates, and evaluations for review by government and other representatives

Draft environmental impact statement:
Report compiling environmental assessment results for review by government and other representatives

Environmental impact statement:
Revised version of draft environmental impact evaluation statement based on results of government review

Priority Initiatives -2 Exhaustive Improvement of Business Efficiency

Extension of Periodic Inspection Intervals for Thermal Power Generation Facilities

In April 2017, the national government's safety inspection regulations were revised, making it possible for business operators to exercise more flexibility in establishing inspection intervals based on the ability of specific operators to maintain smooth operations at their facilities even over extended periods.

We received permission to extend the intervals between periodic inspections at Sakaide Unit No. 3 and Unit No. 4 to six years in April 2018. This permission is a reflection of the national government's evaluation that these facilities have met requirements with regard to conventional systems for continuous inspections and the development of daily inspection and operational management systems capable of quickly detecting and tracking precursors of abnormalities by utilizing the expertise of highly experienced operational staff. We are currently in the process of preparing to submit applications to the national government with the aim of receiving permission to extend periodic inspection intervals for Sakaide Unit No. 1 and Unit No. 2, among other facilities.

The extension of periodic maintenance intervals brings with it benefits including reduced maintenance costs and increased utilization ratios as well as increased freedom in adjusting facility downtime as a result of the additional flexibility granted with regard to inspection timings. Looking ahead, we hope to sustain a strong ability to maintain smooth operations so that we can provide a safe and stable supply of electricity while realizing efficient operation of thermal power generation facilities.

Organization Classifications and Periodic Inspection Intervals Under New Safety Inspection Regulations

Evaluation	Periodic inspection intervals		Inspection item		
	Boiler	Steam turbine	Continuous inspection systems	Operational management	Sophisticated operational management
S	Within 6 years	Within 6 years	○	○	○
A	Within 5 years	Within 4 years	○	○	–
B	Within 4 years	Within 4 years	○	–	–

Initiatives for Extending Periodic Inspection Intervals

April 2018: Acquired S rating for Sakaide Unit No. 3 and Unit No. 4

(Goal)
Fiscal 2020: Acquire S rating for seven units (excluding aged units)

Reduction of approx. ¥1.0 billion in maintenance costs (forecast)

Stable and Economic Fuel Procurement

We are working to procure fuel stably by concluding long-term contracts with highly reliable suppliers, sourcing fuel from a wide variety of countries, and diversifying procurement methods. At the same time, in order to achieve higher economic efficiency, we are making efforts in procurement and operation based on the individual characteristics of each type of fossil fuel, including coal, LNG, and oil.

Initiatives in Stable and Economic Fuel Procurement

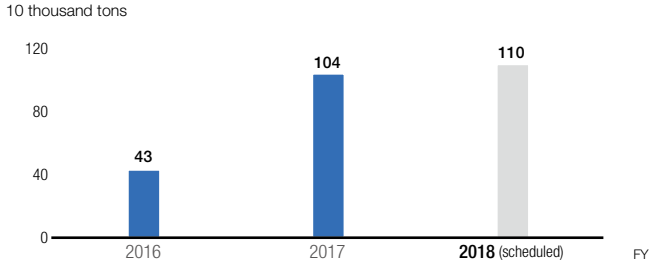
Item	Details of Initiatives
Oil	• Utilizing inexpensive, high-sulfur C-heavy oil
Coal	• Expanding use of affordable, low-grade coal • Conducting combustion trials using new fuel brands • Purchasing fuel under conditions that do not specify fuel brands • Revising contract conditions at time of renewal • Establishing overseas companies to conduct local procurement
LNG	• Practicing efficient spot procurement
Transportation expenses and domestic expenses	• Continuing usage of dedicated large-scale vessels (coal) • Reducing base- and intermediation-related expenses • Lowering processing fees • Conducting joint transportation of foreign coal

Reduction of Coal Procurement Costs through Establishment of Local Fuel Procurement Company

In April 2016, we established YN Energy Pty Ltd, a joint venture with Noble Resources International Pte Ltd., to function as a local fuel procurement company in Australia. The goal of YN Energy is to procure low-cost coal for power generation with sound levels of quality, a goal it pursues by purchasing coal directly from local producers and blending the coal it procures to match the quality standards of our power plants.

In the future, we will broaden our horizons by expanding our sales channels to other business operators. Through such efforts, this company will work toward increased flexibility and create new opportunities for profit.

Coal Procurement through YN Energy



Priority Initiatives -2 Exhaustive Improvement of Business Efficiency

Renewable Energy

Maximum Utilization of Renewable Energy

We are working to utilize renewable energy to the greatest extent possible in light of the benefits to helping Japan become more self-sufficient in energy and to lowering CO_2 emissions. To this end, we are boosting the generation capacity of our hydropower plants and expanding introduction of solar and wind power generation facilities through a concerted Group effort.

Furthermore, we converted the prior Hydropower Department into the new Renewable Energy Department in April 2018 to enable it to better promote renewable energy going forward.

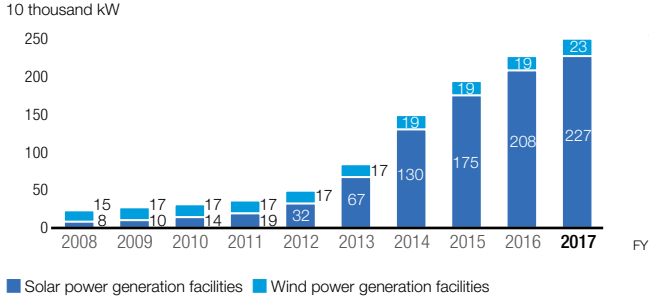
Introduction of Renewable Energy in Shikoku

Hydropower Generation

Hydropower does not entail CO_2 emissions during generation. As it can be generated using water from rivers that will not be depleted, this form of renewable energy can be produced entirely within Japan. Moreover, the lack of fuel requirements ensures consistently low costs over the long term. Water contained in dams is effectively stored energy, meaning that hydropower generation can be used to adjust against rapid load fluctuations and provide power during peak hours. This form of energy thus plays a cornerstone role in maintaining supply and demand balances.

In light of the economic benefits of hydropower, we are systematically increasing the generation capacity of our hydropower plants by installing high-efficiency turbine runners when replacing turbines and utilizing surplus facility capacity.

Generation Capacities of Connected Solar and Wind Power Generation Facilities



Progress in and Plans for Increases in Generation Capacity of Hydropower Plants

FY	Hydropower Station	Maximum Output (Prior to increase → After increase)		Increase in Output
(Aggregate from fiscal 2000–2016)				25.1 MW
2017	Bunsui Daiichi Power Station	26.6 MW →	29.9 MW	3.3 MW
2018	Kira Power Station	2.7 MW →	3.0 MW	0.3 MW
2019	Omogo Daiichi Power Station	7.0 MW →	7.6 MW	0.6 MW
2019	Hirono Power Station	35.7 MW →	36.5 MW	0.8 MW
2020	Iyogawa Power Station	3.1 MW →	3.4 MW	0.3 MW
2020	Kae Power Station	9.7 MW →	9.9 MW	0.2 MW

Excluding increase in generation capacity resulted from utilization of surplus facility capacity

Benefits of Introduction of High-Efficiency Turbines after Fiscal 2000

Approx. **30 MW** increase in output, **70 GWh** increase in annual power generation capacity
(Including those scheduled to commence operation prior to fiscal 2020)

Priority Initiatives -2 Exhaustive Improvement of Business Efficiency

Solar Power Generation

Since the implementation of the feed-in tariff scheme for renewable energy, there has been a rapid increase in solar power generation facilities, and the total generation capacity of solar power facilities connected to our power grid was approximately 2,330 MW on June 30, 2018 (including the southern part of Awaji Island).

The total output of connected solar power plants and solar power plants for which application for contracts have been completed in Shikoku reached the upper limit for 30-day output of 2,570 MW in January 2016. For contract applications submitted after January 2016, even in the case that output is controlled for over 360 hours per year, power can still be connected to our grid, on the condition that no compensation will be provided.

Wind Power Generation

The upper limit for 30-day output of wind power generation facilities is 710 MW (including the southern part of Awaji Island, when calculated based on the method put forth by the national government's power grid working group).

As of June 30, 2018, the total generation capacity of wind power facilities connected to our grid was 230 MW. In addition, there are currently another 160 MW worth of facilities to be constructed for which grid connection has already been approved. It can therefore be expected that the total generation capacity of the wind power facilities connected to our grid will rise to around 390 MW. Our Group will participate in the operation of approximately 40 MW worth of these facilities.

Concerted Groupwide Effort to Promote Renewable Energy

Renewable energy is beneficial in its ability to help Japan become more self-sufficient in terms of energy and to lower CO_2 emissions. In consideration of these benefits, our Group is advancing a concerted effort to promote the effective usage of renewable energy by actively participating in projects in Japan and overseas.

In Japan, Group companies are taking part in open bids for generation projects by local government bodies while also receiving orders for facility construction and maintenance and management services.

Overseas, we advance initiatives for promoting and expanding the use of renewable energy working with Group companies. For example, we are participating in a solar power generation project in Chile (see P. 35) and conducting overseas consulting operations that include survey and verification services related to the utilization and spread of renewable energy. These consulting services are primarily offered in developing countries.

Overseas Consulting Projects

- Solar power generation facility installation survey in Maldives
- Internship project for students from Latin American and Caribbean countries (Knowledge Co-Creation Program (Young Leaders) for Latin American and Caribbean Countries/ Renewable Energy Course by Japan International Cooperation Agency)
- Promotion and verification project for wind power generation systems using wind lenses in Thailand

Installation of Solar and Wind Power Generation Facilities by the Shikoku Electric Power Group

Solar Power Generation*1

Project head	Output (kW)	Location
YONKO SOLAR CORPORATION*3	12,460	Kagawa Prefecture
Takuma Photovoltaic Investment Limited Partnership*4	10,780	
Nio Solar Power Generation Corporation*3	2,504	
YONKO SOLAR CORPORATION*3	2,380	
Nio Solar Power Generation Corporation*3	1,680	
YONKO SOLAR CORPORATION*3	1,371	
Nio Solar Power Generation Corporation*3	1,246	
YONKO SOLAR CORPORATION*3	1,008	
Kuwano Solar Power Generation Corporation*3	2,023	Tokushima Prefecture
YONKO SOLAR CORPORATION*3	12,005	Kochi Prefecture
YONDENKO CORPORATION	2,456	
Kochi Nakoyama Solar Farm Corporation*3	1,260	
YONKO SOLAR CORPORATION*3	9,345	Ehime Prefecture
SEPCO (Matsuyama Power Station)	2,042	
Takacho Yasudago Mega Solar Hatsuden Limited Liability Company*4	14,494	Hyogo Prefecture

Wind Power Generation

Project head	Output (kW)	Location
MISAKI WIND POWER CO., Ltd.*2	20,000	Ehime Prefecture
Okawara Windfarm Corporation*4	19,500	Tokushima Prefecture
Ei Wind Power Company, Incorporated*4	16,000	Kagoshima Prefecture

*1 Systems with output over 1,000 kW
*2 Investment stake held by SEPCO
*3 Investment stake held by YONDENKO CORPORATION
*4 Investment stake held by Yonden Engineering Company, Incorporated

Priority Initiatives -2 Exhaustive Improvement of Business Efficiency

Initiatives for Spreading Renewable Energy

Since the implementation of the feed-in tariff scheme for renewable energy in July 2012, installations of solar generation facilities have been increasing rapidly.

On May 5, 2018, we recorded a maximum solar power output of 1,770 MW during the period from 12PM to 1PM, which accounted for 80% of the total power demand during that time period.

Over this period, we operated our power network in a manner that ensured a stable supply of power by limiting use of thermal power sources, using solar power to pump water at pumped-storage power plants, and effectively utilizing inter-connectors to match power supply to demand.

At the same time, we are engaged in initiatives for promoting the introduction of solar and wind power generation facilities from the perspective of balancing supply with demand along with various grid-related measures.

Supply-Demand Control through Solar Power Output Prediction System

Solar power generation is heavily influenced by weather and other natural conditions. To facilitate more effective solar power operations, we developed a solar power output prediction system together with Group company Shikoku Research Institute Incorporated.

This system utilizes weather forecast data from the Japan Meteorological Agency (JMA) and weather satellite images to estimate sunlight amounts across Shikoku, giving the light amounts for each section of mesh that divides the region into 5-km squares. This information is used to predict solar power output. The system was put into operation in October 2015 and has since been utilized to control daily supply-demand balances.

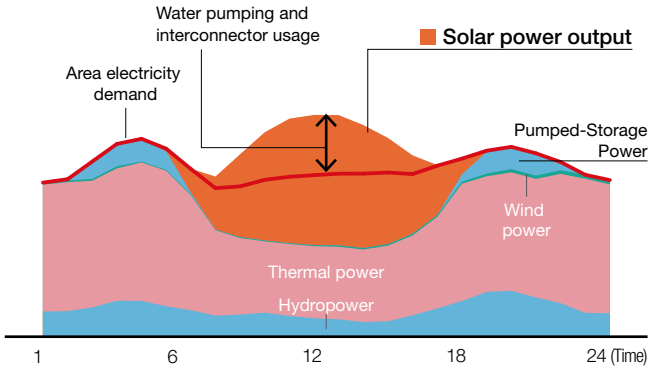
Measures for Responding to Increase in Grid Voltage

Higher generation of solar power can result in a rise in the amount of electricity input into the power grid, increasing the voltage within power grids and potentially resulting in a halt on solar power generation. We are installing additional automatic voltage regulators as well as pole transformers in order to limit increases in voltage.

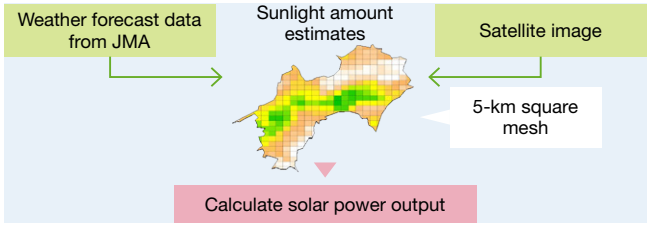
Response to Grid Limitations

There are cases in which capacity of existing transmission lines proves insufficient for accommodating increases in renewable energy generation. Based on our policy of utilizing existing transmission lines as much as possible, we seek to respond to such grid limitations by formulating current projections based on conditions similar to actual usage trends and taking advantage of capacity that is unused at any given time based on those projections. In addition, we are examining the possibility of using a portion of the grid's power transmission capacity that had previously been held in reserve for times of emergency prefaced on the idea that output will be restricted should an emergency arise.

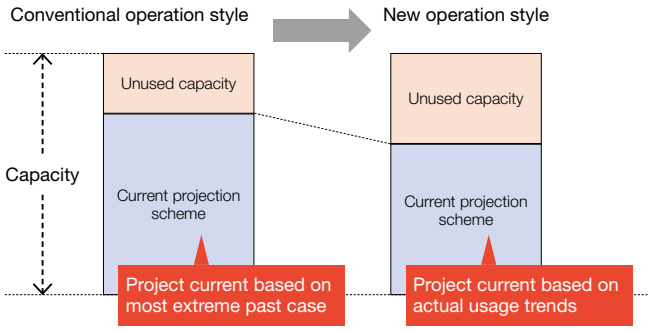
Supply-Demand Balance on May 5, 2018



Solar Power Output Prediction System Processing Flow



Revision of Current Projection Scheme



Priority Initiatives -2 Exhaustive Improvement of Business Efficiency

Power Network

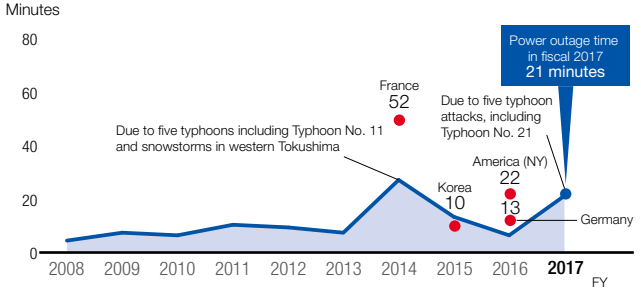
Improvement of Supply Stability

In regard to transmission equipment and substations, we are backing up our current network by installing multiplex transmission lines and using multiple transformer banks. We are also taking steps to increase the functionality of grid protection devices in order to minimize impact in the rare event of an accident.

Regarding distribution facilities, the duration of power outages at SEPCO is shorter than those of its peers in various foreign countries. We achieve this through appropriate maintenance and inspections. Measures to reduce the frequency or the time required for maintenance and inspections that are accompanied by planned power outages contribute to our superior performance as well. Also, at all operating sites we are installing automation systems for distribution grids, which automatically and rapidly minimize the scope of power outages and enable us to resume transmission as soon as possible.

Furthermore, we are swiftly conducting the necessary construction to allow for solar power, wind power, and other renewable energy systems to be connected to our grid in order to respond to the increased introduction of such systems. We also practice optimal network management based on generating conditions.

Trend of Annual Power Outage Time* per Customer Home Compared to Overseas



Results are for SEPCO in each fiscal year, America and Germany in 2016, Korea in 2015, and France in 2014
Source: Japan Electric Power Information Center, Inc., *Overseas Electricity Business Statistic 2017* (Japanese only)
* Power outage time = Power outage time due to accident or error

Introduction of Smart Meters

We are gradually installing smart meters that allow for electricity usage amounts to be monitored while also increasing the efficiency of meter-reading work. We completed installation of meters into systems for all customers using high-voltage power, such as factories and buildings, in fiscal 2016. We are currently in the process of systematically installing smart meters for all customers using low-voltage power, which includes houses. Installation of all meters is scheduled for fiscal 2023.

Restoration Drills to Prepare for Large-Scale Disasters

There exists a high probability of a Tonankai or Nankai Trough earthquake occurring in the near future. In such an event, we anticipate that its distribution facilities would undergo heavy damage. We take advantage of times of normal operation to conduct drills on restoring downed operations at individual branches and offices as well as jointly with affiliates.

In fiscal 2017, we took part in a comprehensive disaster preparedness drill held by Kochi Prefecture that simulated a massive earthquake. Around 1,200 people participated in this drill from roughly 90 organizations. In this drill, we worked together with Group company Yondenko Corporation to reenact the steps that would need to be taken to restore power, such as fixing disrupted power poles and severed power lines. In addition, we collaborated with the Japan Self-Defense Forces to conduct drills on the fueling of high-voltage power generators while also engaging in various other drills.

Fueling of high-voltage power generator

Priority Initiatives -2 Exhaustive Improvement of Business Efficiency

Improvement of Management Efficiency

Our operating environment is changing, as seen in such developments as the intensification of competition following the complete liberalization of the retail electricity market. To address such changes, we continue to thoroughly improve and entrench efficiency in all aspects of our management while further strengthening our management structure. To this end, we selectively conduct capital investments and repair work and pursue increased human performance and business efficiency, all under the principle of ensuring a stable energy supply.

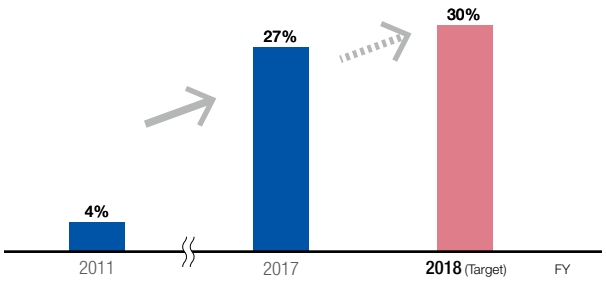
Major Initiatives to Improve Management Efficiency

Item	Content
Personnel expenses	• Review business process • Promote work-life balance via the "Yonden e-work" workstyle reform
Fuel and power purchases (Fuel costs, electricity purchases)	• Expand use of low-grade coal to reduce coal procurement costs • Employ highly efficient turbine runners at hydropower plants • Improve operational efficiency at coal-fired plants by reducing the number of regular inspection days through the use of newly acquired knowledge • Actively utilize the Japan Electric Power Exchange, etc.
Repair expenses, depreciation costs	• Reduce procurement prices • Examine construction plans and construction schedules, etc.
Miscellaneous expenses	• Reduce procurement and transaction prices • Carefully select expenditure items, etc.

Measures for Improving Efficiency in Material Procurement

- **Improve procurement methods**
  Conduct rigorous inspections and price negotiations and implement other procurement measures
  Make changes on the individual supplier and order level (place separate orders for material purchase and installation, etc.)
- **Increase open bids**
  Revise specifications and explore new suppliers
- **Strengthen partnerships with suppliers**
  Help remove obstacles for suppliers, propose cost reductions, and otherwise promote mutual understanding with suppliers to reduce prices

Trends in the Percentage of Open Bids



Company Performance Overview (Efficiency Improvement Initiatives) (in Japanese only)
http://www.yonden.co.jp/corporate/ir/policy/result/index.html

Examples of Efficiency Improvement Measures

Joint Purchasing of Circuit Breakers with Other Power Companies

Previously, we had procured circuit breakers through batch orders. In fiscal 2017, however, we began coordinating orders with the projects of other power companies to leverage economies of scale in order to realize discounts through joint purchasing.

- **Batch Orders**
  Batch orders are a technique aimed at leveraging economies of scale in order to realize discounts by compiling all articles that will need to be procured, determining specifications early in the process, and holding bids to supply articles to be delivered to different locations at different times.
- **Joint Purchasing**
  Joint purchasing is a technique aimed at leveraging economies of scale in order to realize discounts by holding bids jointly with order companies.

Priority Initiatives 3

Creation and Expansion of Profit Sources Outside of Electric Power Business

With the aim of creating and expanding new sources of profit, we endeavor to improve the earnings capacity of existing operations while exploring new business fields with an eye to expanding our market areas, extending our business domains, and developing combination services.

Telecommunications Services

We are expanding our operations in the information and communications technology (ICT) field through efforts centered on Group company STNet, Inc.

"Pikara" Optical Cable Internet Service

The number of customers contracted to our Pikara Optical Cable Internet Service has continued to show impressive growth since the service was launched in 2004, reaching 250,000 in fiscal 2017. Going forward, we will reinforce sales systems and enhance customer support with a view to further contract growth.

"Fiimo" Low-Cost Mobile Service

Fiimo is a mobile service that lets customers use smartphones and other devices at low prices. Launched in February 2016, this service is available to both private and business customers. Contract acquisition is being promoted by increasing contact points with customers through the establishment of directly operated stores, accelerating promotional activities, and enhancing service quality.

Our first directly operated store was opened on March 31, 2017, and we had six locations across Shikoku as of August 2018, expanding our range of points of contact with customers and helping us enhance our services.

Data Center and Cloud-Related Operations

Powerico is a state-of-the-art data center built in Takamatsu City, Kagawa Prefecture, which is known to have relatively few natural disasters in comparison to the rest of Japan. Providing service since 2013, Powerico is core to STNet's data center and cloud-related operations. We are currently working to expand the customer base of these operations by improving the quality of our data center services and supplying cloud services that offer responses to various customer needs.

In May 2018, we began the expansion of Powerico with the completion of this expansion scheduled for October 2019. After the expansion, Powerico is set to be the largest data center in West Japan.

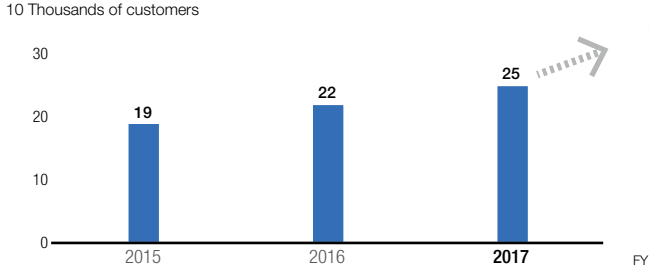
"Powerico" data center in Takamatsu

"Pikara" Optical Cable Internet Service (in Japanese only)
http://www.pikara.jp/

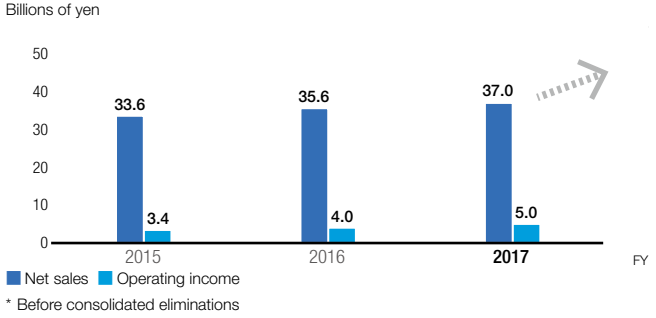
"Fiimo" Low-Cost Mobile Service (in Japanese only)
http://www.fiimo.jp/

"Powerico" Data Center Operations (in Japanese only)
http://www.stnet.co.jp/dc/powerico/index.html

Trend in Cumulative Number of Contracted Customers for Pikara Optical Cable Internet Service



Performance Trends in Telecommunications Services



* Before consolidated eliminations

Priority Initiatives -3 Creation and Expansion of Profit Sources Outside of Electric Power Business

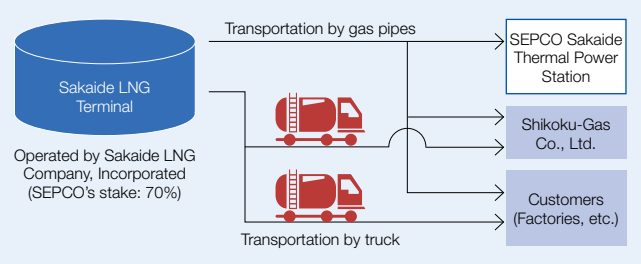
Gas Services

We provide gas supply services as one facet of our operations in the integrated energy field.

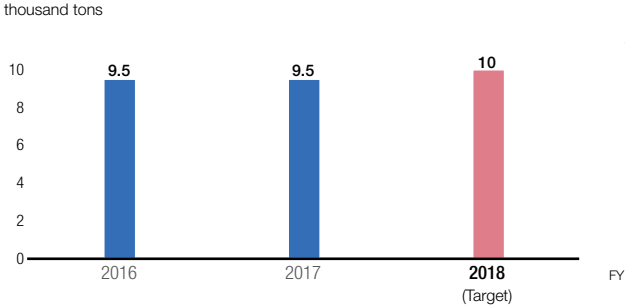
LNG Sales Centered on Sakaide LNG Terminal

The Sakaide LNG Terminal was constructed next to the Sakaide Thermal Power Station in conjunction with the introduction of LNG facilities at this power station. The terminal provides wholesale gas supply to gas companies in Shikoku as well as LNG sales to large-volume consumers. Moving forward, we plan to expand sales channels by accurately addressing a wide array of needs pertaining to natural gas.

LNG Sales Mechanism



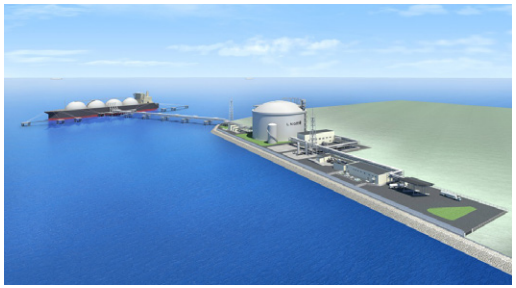
LNG Sales Volumes



Joint Operation of LNG Terminal inside Sumitomo Chemical's Ehime Works

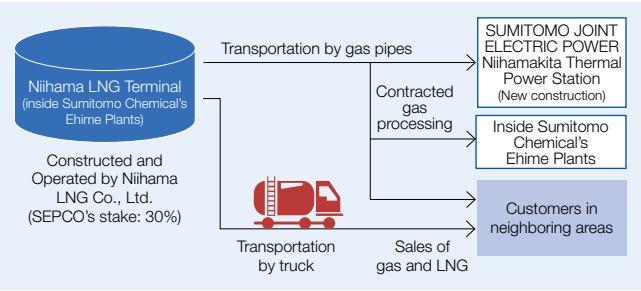
In April 2018, Niihama LNG Co., Ltd., was established through joint investment from five companies: Tokyo Gas Engineering Solutions Corporation; Sumitomo Chemical Company, Limited; SUMITOMO JOINT ELECTRIC POWER CO., LTD.; Shikoku-Gas Co., Ltd.; and SEPCO. By jointly operating an LNG terminal through Niihama LNG, these companies will seek to promote and expand usage of eco-friendly natural gas while providing the surrounding area with a stable and efficient supply of energy.

Operation of Niihama LNG's terminal is slated to begin in February 2022. Operations at the Niihama Thermal Power Station are scheduled to commence in July of the same year.



Inside completed LNG terminal (artist rendition)

Business Scheme



Overview of Niihama LNG Co., Ltd.

Location	5-1, Sobiraki-cho, Niihama City, Ehime Prefecture (Inside Sumitomo Chemical's Ehime Plants)
Founded	April 2, 2018
Paid-in Capital	¥10.7 billion
Business Activities	Contracted gas processing LNG terminal operation and maintenance Sales of gas and LNG, etc.
Overview of LNG Terminal Facilities	LNG tanks (230,000 kl) Berths for international transport ships LNG gasification facilities Truck loading facilities, etc.

Priority Initiatives -3 Creation and Expansion of Profit Sources Outside of Electric Power Business

Overseas Businesses

Seeking to enter into new markets in pursuit of future earnings base growth, we are developing operations in various fields, such as overseas power generation businesses and technical consulting for facilitating overseas investment. Moreover, the new International Business & Cooperation Department was established as part of the April 2018 organization restructuring, poising us to further grow such operations by taking part in new projects.

FY2025 Profit Target

FY2025 Profit Target
¥4.0 billion a year

Expanding Targets of Considerations

Without being constrained to gas-fired thermal power from the Middle East, where we have made accomplishments in existing projects, we are giving consideration to expanding our owned capacity of all types of renewable energy in Southeast Asia and the Americas, which represent regions where growth is anticipated.

Strengthen Strategic Partnerships

In addition to strengthening our relationship with existing business partners, we will use our many strengths in order to establish relationships with new business partners. These strengths include our knowhow related to facility operation and maintenance cultivated in the domestic electricity business as well as the network of transaction partners and local government agencies we have established through our consulting services.

In particular, the development of overseas power generation businesses has been defined as one of our growth strategies, and we are therefore actively looking to participate in and develop new projects accordingly.

In June 2017, we decided to participate in a solar power generation project in Chile, following gas-fired thermal power generation projects in Qatar and Oman. Construction of the facilities for this project is currently underway. We will advance construction while leveraging our Group's technical insight into equipment design and construction. In addition, in August 2018, we made the decision to take part in the natural gas-fired thermal power generation business in the United States.

As for our consulting operations, we had taken part in 94 projects in 50 countries worldwide as of March 31, 2018.

Overview of Solar Power Generation Project in Chile

The solar power generation project in Chile will entail the construction of a solar power plant with a generation capacity of 98 MW located in the Atacama Desert in northern Chile, which receives some of the highest amounts of sunlight in the world. After construction, we will operate and maintain this plant over a period of 30 years. The generated electricity will be sold on Chile's electricity wholesale market.

The project is being advanced through a consortium formed with Sojitz Corporation and major French construction company Eiffage S.A. This is our first project in South America. We look forward to advancing this project while capitalizing on the business development and operation experience Sojitz has accumulated through overseas solar power projects. We will also be taking advantage of our local network in Latin America, which we have cultivated through numerous consulting projects in this region, as well as our solar power expertise.

This project will be the first independent power producer project in Chile to be conducted by a Japanese power company.

Installation of more than 300,000 solar panels

Overview of Overseas Power Generation Projects

		Qatar	Oman		Chile	The United States
Project		Ras Laffan C	Barka 3	Sohar 2	Huatacondo	South Field Energy
Project details		Construction and operation of plants, sales of power and water	Construction and operation of plant and electricity sales		Construction and operation of plant and electricity sales	Construction and operation of plant and electricity sales
Installed capacity	Power generation	2,730 MW (GTCC)*	744 MW each (GTCC)*		98 MW	1,182 MW
	Desalination facilities	290,000 tons per day	—		—	—
Investment participation by SEPCO		5%	7.15%	7.15%	30%	Approx. 8.9%
Project term		April 2011—March 2036 (25 years)	April 2013—March 2028 (15 years)		2018 (scheduled commencement of operations)	2021 (scheduled commencement of operations)

* GTCC represents electricity generation by Gas Turbine Combined Cycle

Priority Initiatives -3 Creation and Expansion of Profit Sources Outside of Electric Power Business

Private Finance Initiatives

We engage in private finance initiatives (PFIs) that encompass financing, design, construction, maintenance management, and operation of public facilities as part of its involvement in public facility development projects.

In fiscal 2017, a business consortium of local business operators with Group company Yondenko Corporation as its representative won a bid for the Unomachi Hachinoji urban infrastructure development project of Seiyo City, Ehime Prefecture and the Tokushima Prefectural Police's PFI building construction project. These projects have since been commenced.

Overview of Tokushima Prefectural Police PFI Building Construction Project

Project head	Tokushima Prefecture
Project details	Reconstruction, maintenance, and operation of Tokushima Prefectural Police building
Project target	Tokushima Prefectural Police
Project period	March 2018–March 2036 Approx. 3-year design and installation period 15-year maintenance management and operation period

Artist rendition of completed Tokushima Prefectural Police building
(created for reference purpose only, final plan may differ)

Nursing Care Business

The need for nursing care facilities in Japan is growing with the continued aging of the population. To address this increasing demand, the Group company Yonden Life Care Company, Inc., is managing three nursing homes in Matsuyama, Takamatsu, and Kochi.

Nursing care professionals are available for assistance 24 hours a day in comfortable facilities with all-electric specifications. This has earned our Group a reputation for security and trust.

Fee-based nursing home Yonden LIFE CARE Facility (Ritsurin)

Lifestyle Support Service Business

We have concluded a franchise agreement with Benry Co., Ltd., a company based in Kiyosu City, Aichi Prefecture, and the Company was thereby able to commence operation of its lifestyle support service business in April 2018, marked by the opening of the first location in Ritsurin. We are already receiving praise in this business for being able to provide solutions to the various issues faced in people's everyday lives on a one-stop basis.

We look forward to gaining experience and expanding our network going forward, developing our business with an eye to having locations in major cities throughout Shikoku.

Benry Yonden Ritsurin office

Benry Yonden Ritsurin Office (in Japanese only)
http://y-ritsurin.benry.com/

Overview of Benry Yonden Ritsurin Office

Location	Takamatsu City, Kagawa Prefecture
Service area	Takamatsu City and surrounding areas
Services	House cleaning, air conditioner cleaning, furniture arrangement, shopping proxy, lawn mowing, pruning, pest extermination, light bulb replacement, etc.

Priority Initiatives -3 Creation and Expansion of Profit Sources Outside of Electric Power Business

Agricultural Businesses

In our agricultural businesses, we have been capitalizing on the management resources of Group companies as we participate in projects related to crop production, processing, research and development, and other areas of the agricultural field.

Looking ahead, we plan to develop new agricultural businesses while contributing to local industry development by invigorating the agricultural industry in Shikoku.

Shikoku Electric Power Group Agricultural Efforts (in Japanese only)
http://www.yonden.co.jp/corporate/yonden/group/yonden-agri/index.html

Agricultural Field Initiatives of Shikoku Electric Power Group Companies

Company name	Initiative	Production name
YONDENKO	Tomato production and sales	Midiful
SHIKOKU INSTRUMENTATION	Low-potassium production and sales	Premium low-potassium lettuce
SHIHEN TECHNICAL	Olive processing and sales	Gin no daiya
Ikata Service Company	Tangerine processing and sales	Tangerine powder
Shikoku Research Institute	Development and sales of cultivation environment monitoring systems and green LED lights for pest control purposes	HappiMinder Midorikikuzo

Verification Test of Information Distribution Service Using Power Poles

Since May 2018, we have been involved in a verification test of information distribution services using power poles that is meant to provide support for pilgrims on the famous Shikoku pilgrimage route. This project will be carried out until March 2019.

This service, which is provided through collaboration with the Shikoku Henro World Heritage Inscription Council, entails methods such as installing beacons on our power poles that emit signals to be picked up by the dedicated Shikoku pilgrimage support smartphone app, which guides pilgrims to their destination. This scheme allows pilgrims to automatically receive information on sacred sites, restaurants, lodging facilities, and other points of interest in the surrounding area.

Looking ahead, we are examining possible business models to be developed in the future by utilizing the insight gained through this verification test.

Shikoku Pilgrimage Support Smartphone App (in Japanese only)
http://www.yonden.co.jp/cnt_henrosupport/index.html

Open Innovation Program

We are endeavoring to create new businesses by combining our plentiful management resources with the ideas of startup companies.*1 To facilitate these efforts, May 2018 saw us launch Yonden Accelerator 2018, an open innovation program instituted jointly with Creww Inc.,*2 which is located in Meguro-ku, Tokyo.

This program is based on our Group's commitment to driving happiness forward. Rather than being limited to the field of energy, which has traditionally been our Group's focus, this project is aimed at creating completely new businesses together with startup companies. Through the businesses created, we hope to realize new value and services for enriching our everyday lives as well as contributing to communities in Shikoku and the greater society.

*1 Rapidly growing companies that approach existing markets with unprecedented business models built on unique technologies and ideas
*2 Operator of Japan's largest community of startup companies

Overview of Open Innovation Program