

Overview of the FY2023 HEPCO Group Management Plan

Hokkaido Electric Power Co., Inc.
April 2022

We would like to take this opportunity to express our gratitude for your continued support of the HEPCO Group.

Based on the consensus that climate change is a pressing issue, countries worldwide are accelerating efforts aimed at “carbon neutrality”—the elimination of greenhouse gas emissions.

To realize carbon neutrality, in addition to the large-scale adoption of renewable energy, the use of nuclear power, various technological innovations such as the utilization of hydrogen and the social implementation of these technologies are necessary.

We will realize the sustainable growth of our business and a sustainable society by promoting our various carbon-neutral initiatives together with communities and society while maximizing Hokkaido’s potential.

Also, as a responsible energy provider, the HEPCO Group will continue to work together to ensure the stable supply of energy.

We ask for your continued understanding and support for the business operations of the HEPCO Group.

April 2022

Hokkaido Electric Power Co., Inc.

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1. The HEPCO Group's Medium- to Long-Term Vision

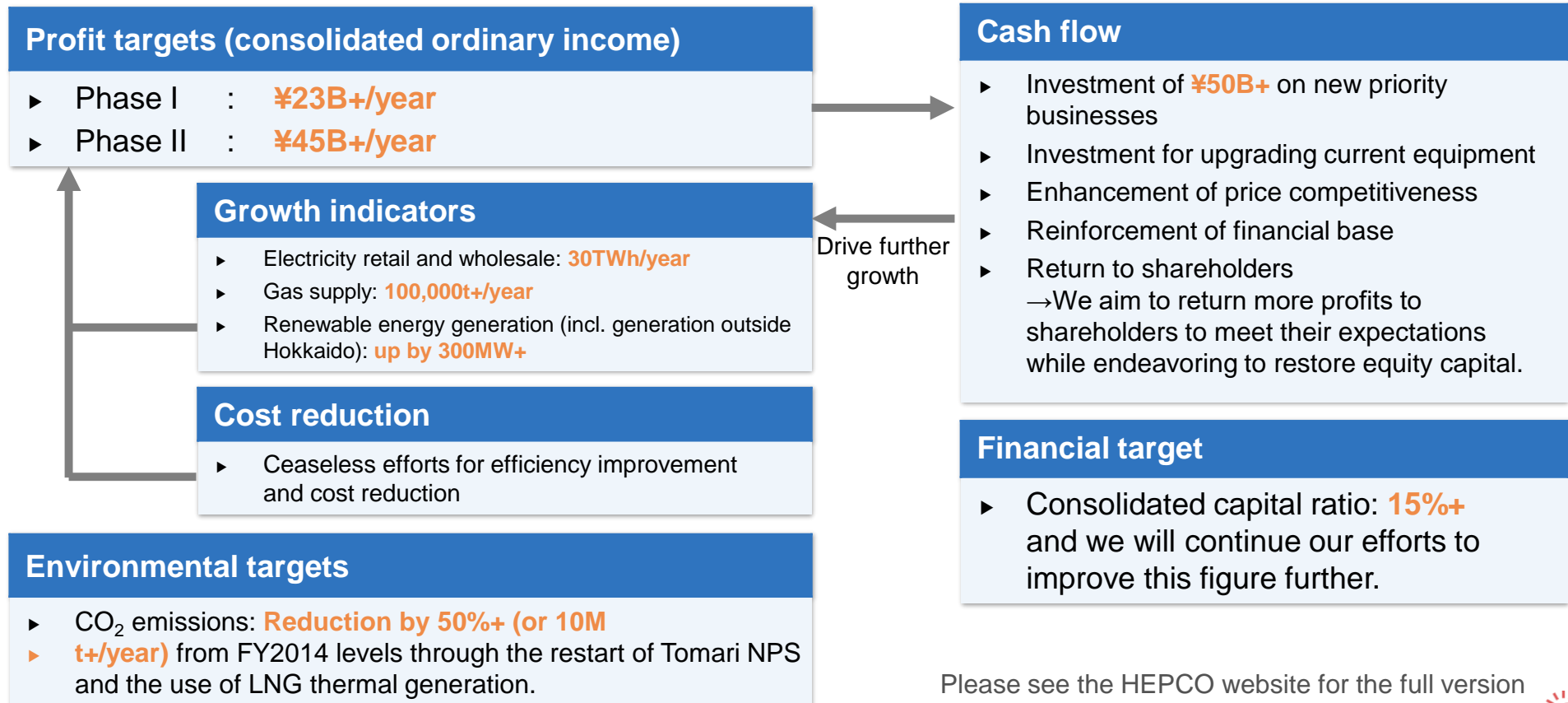
The HEPCO Group's **Medium- to Long-Term Vision**

- In April 2020, the HEPCO Group set forth the **HEPCO Group Management Vision 2030**, and began working toward making the Vision reality.
- Subsequently, in March 2021, we announced that we will further enhance the initiatives of the HEPCO Group Management Vision 2030 and that we will do our utmost to **meet the challenge of achieving carbon neutrality in Hokkaido** by 2050, and contribute to regional development. We will strive for wide-ranging cooperation and collaboration throughout Hokkaido and contribute to realizing "Zero-Carbon Hokkaido," which will simultaneously promote decarbonization, economic stimulation, and sustainable regional development.
- The HEPCO Group is strategically developing various policies looking ahead to our 2030 and 2050 visions.

Overview of the HEPCO Group Management Vision 2030

- In April 2020, we compiled the HEPCO Group Management Vision 2030 as the HEPCO Group's vision for 2030 and established the below management goals.
- With an emphasis on ESG (environment, society, and governance), we will strive to realize sustainable business growth and a sustainable society and fulfill our unwavering mission to support Hokkaido's economy and customers' lives.

[Management goals for FY2031]



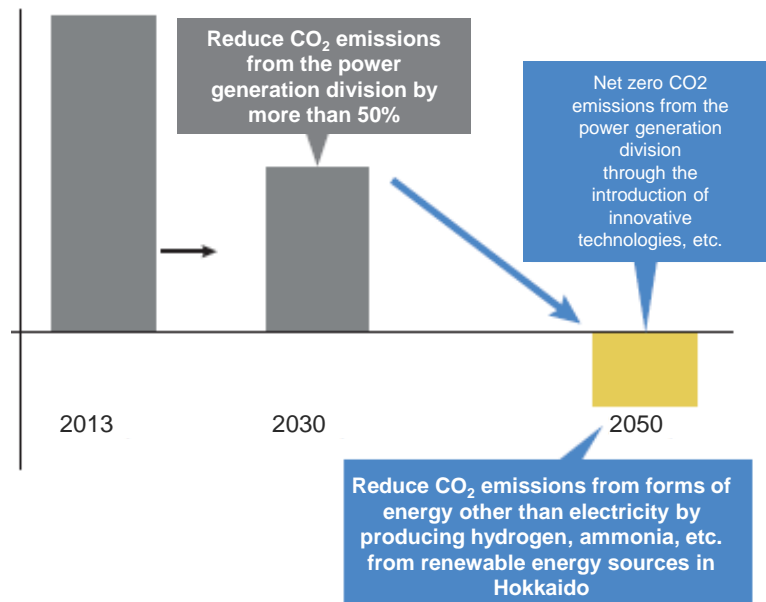
The Challenge of Carbon Neutral Realization by 2050

- In March 2021, we announced that we will further enhance the initiatives of the HEPCO Group Management Vision 2030, and we will do our utmost to meet the challenge of achieving carbon neutrality in Hokkaido by 2050.

Management Vision 2030

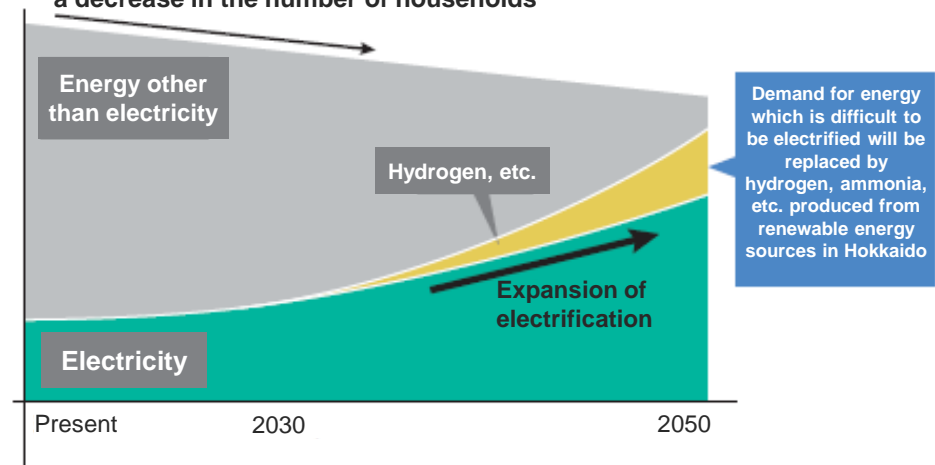
Carbon Neutral 2050

◆ Illustration of future CO₂ emission reductions



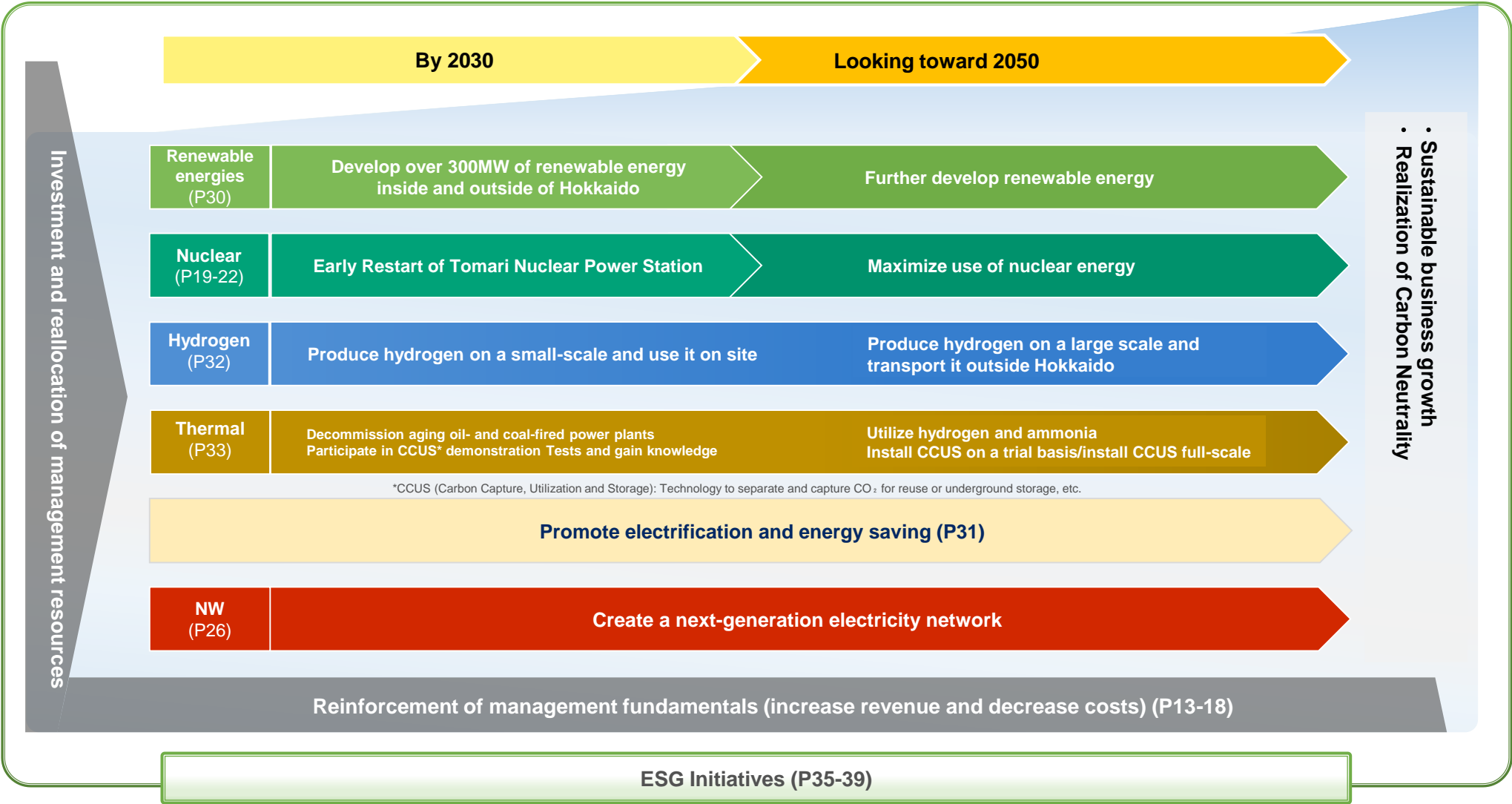
◆ Illustration of future energy demand

Effects of energy saving, declining population, and a decrease in the number of households



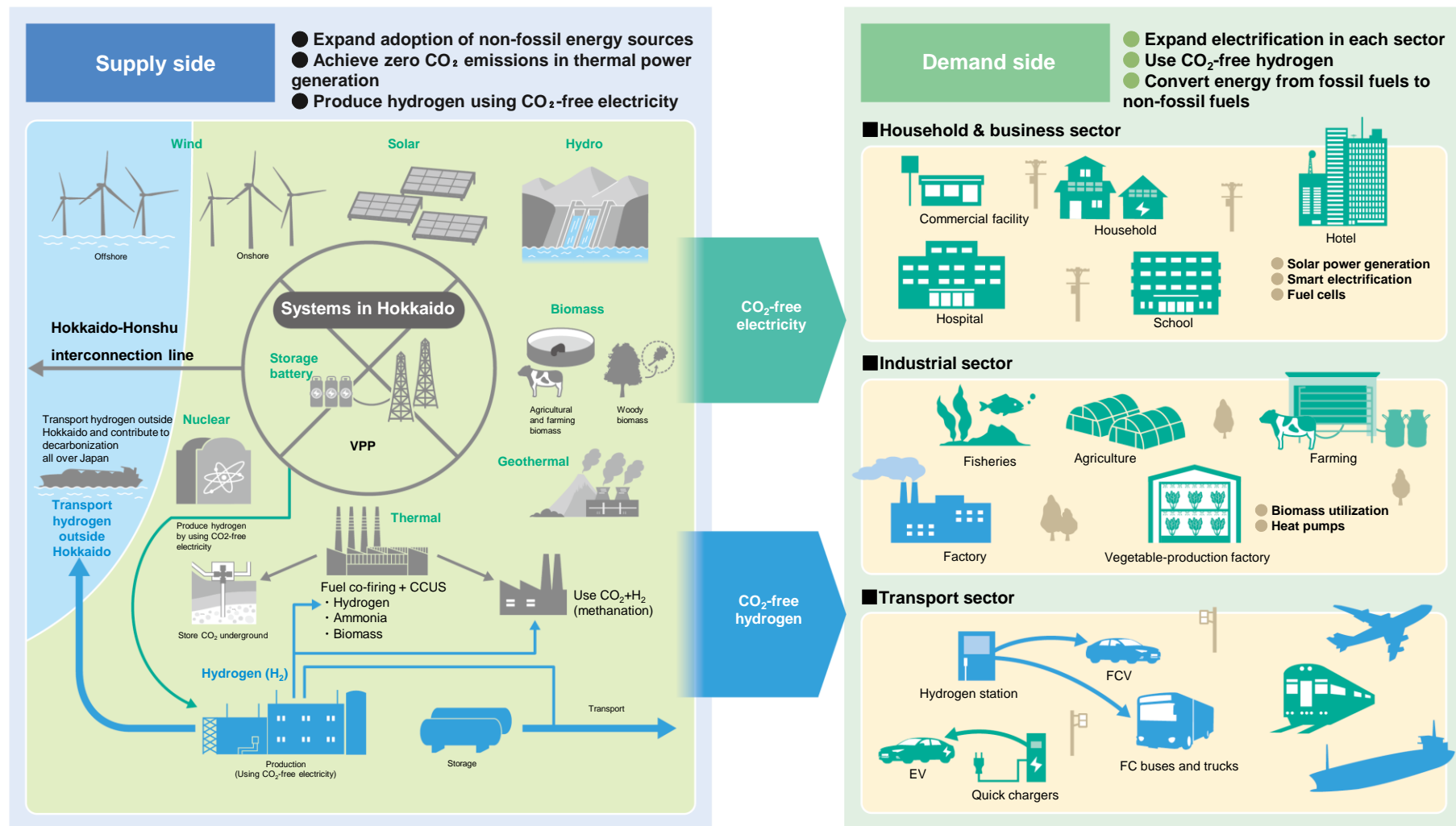
Road Map

- Building on achievements created from the reinforcement of management fundamentals while realizing sustainable business growth, the HEPCO Group will take the lead in societal changes aimed at carbon neutrality by investing and reallocating management resources to decarbonization fields.



[Reference] Image of Carbon Neutrality in Hokkaido

- While working with the Japanese Government, local governments, other companies, universities, and research institutions, we will promote various supply and demand initiatives.



(1) Progress in Achieving our **Management Goals**

- (2) Reinforcement of Management Fundamentals
- (3) The Early Restart and Improved Safety of Tomari Nuclear Power Station
- (4) Ensuring the Stable Supply of Energy
- (5) Priority Initiative Fields for Carbon Neutrality
- (6) ESG Initiatives

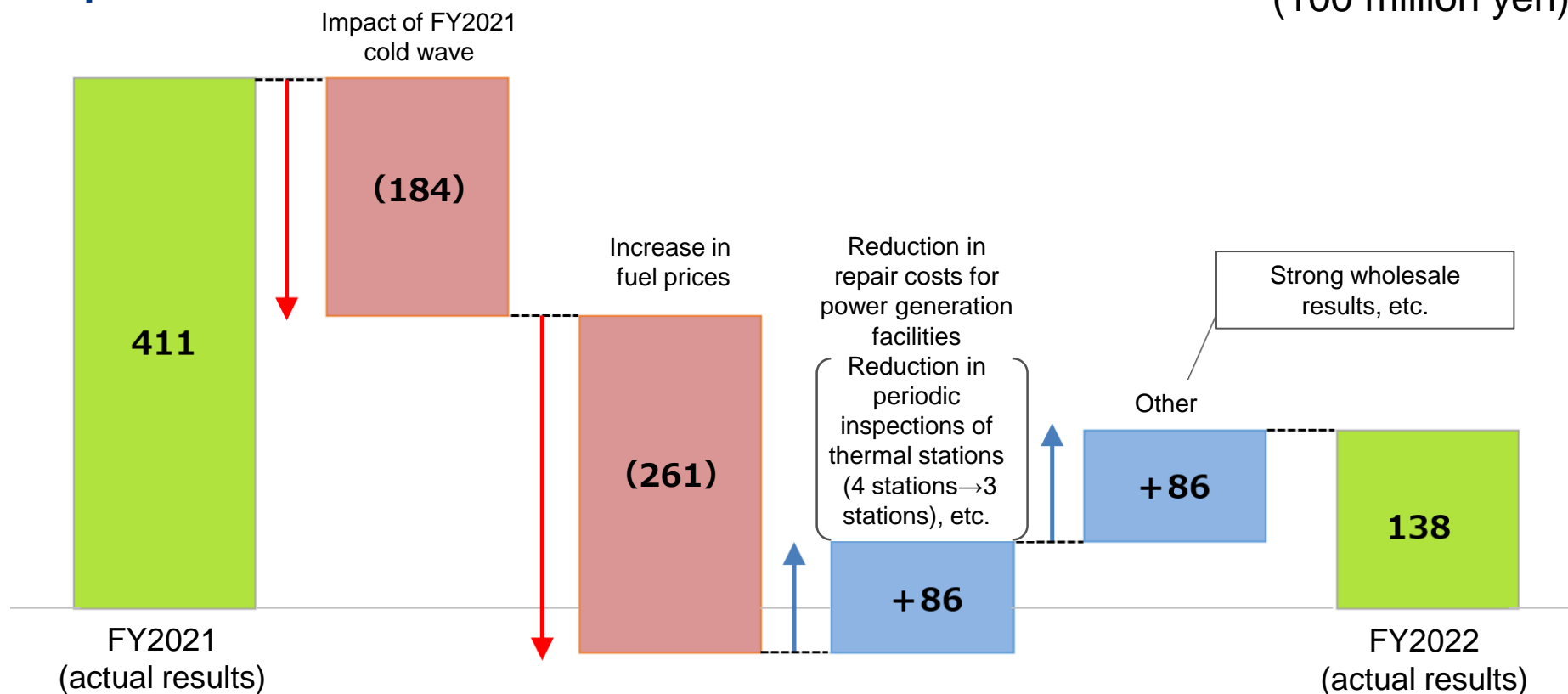
2. Major Initiatives for FY2023

Consolidated Ordinary Income for FY2022

- Despite increases caused by a reduction in repair costs for power generation facilities and strong wholesale results, the consolidated ordinary income for FY2022 was **13.8 billion yen**, a 27.3-billion-yen decrease compared to FY2021 due to the impacts of the cold wave and increase in fuel prices.

◆Factors behind the fluctuation in consolidated ordinary income (compared to FY2021)

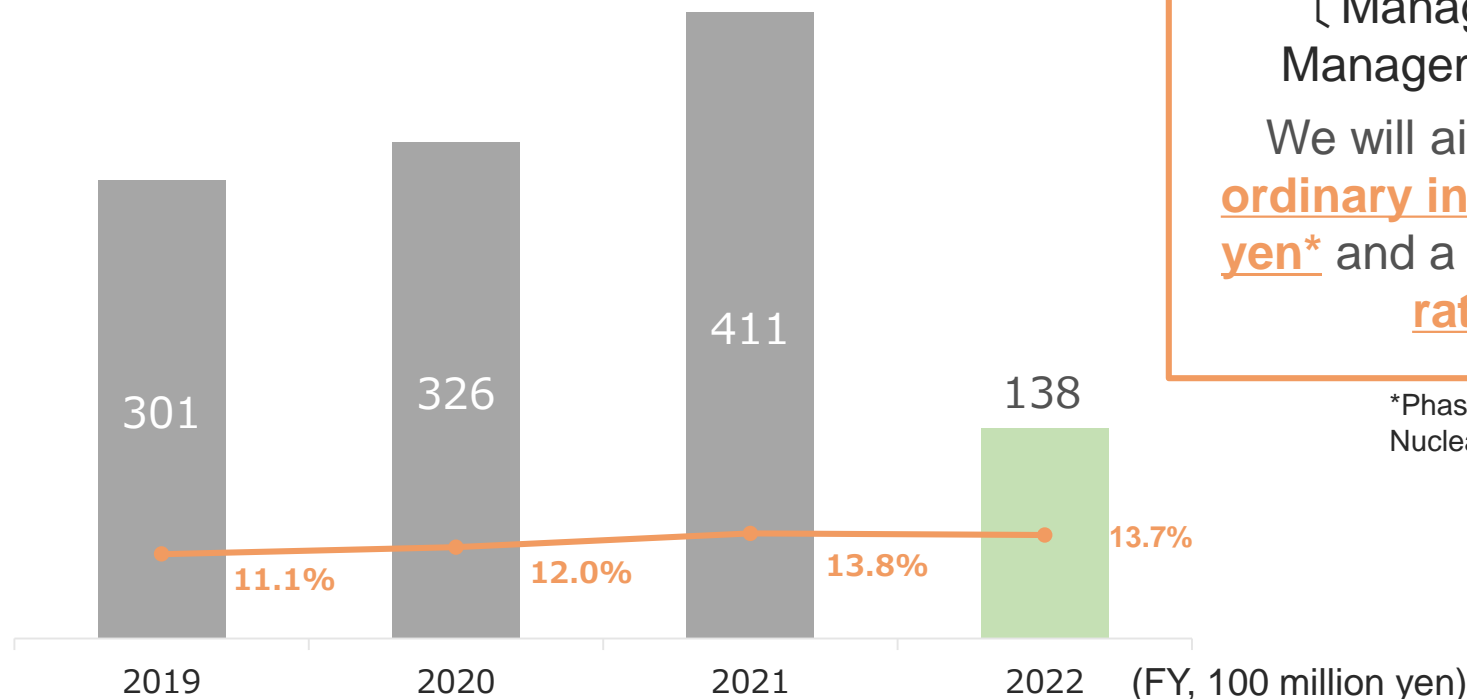
(100 million yen)



Changes in Consolidated Ordinary Income and Consolidated Capital Ratio

- Consolidated Capital Ratio was **13.7%** as of the end of FY2022. We will continue to steadily increase our consolidated capital ratio towards our goal of 15%.
- We will strive to increase revenue for electricity retail by reinforcing our sales network and expanding our alliances. We will continue to sell electricity wholesale while securing sufficient supply capacity to ensure the stable supply of energy. In addition, we will make more vigorous efforts to promote initiatives for the reinforcement of management fundamentals to reduce costs.

◆Changes in consolidated ordinary income and consolidated capital ratio



〔 Management Targets for Management Vision 2030 〕

We will aim for **consolidated ordinary income over 23 billion yen*** and a **consolidated capital ratio over 15%**

*Phase I: Goal before the restart of Tomari Nuclear Power Station

(1) Progress in Achieving our Management Goals

(2) Reinforcement of Management Fundamentals

1) Initiatives to **increase revenue**

2) Initiatives to **reduce costs**

(3) The Early Restart and Improved Safety of Tomari Nuclear Power Station

(4) Ensuring the Stable Supply of Energy

(5) Priority Initiative Fields for Carbon Neutrality

(6) ESG Initiatives

2. Major Initiatives for FY2023

Reinforcement of Management Fundamentals

- To **increase revenue**, we will enhance our sales network by expanding our alliances and vigorously promoting sales activities in our linchpin businesses of **electricity and gas retail**.

We will also secure and increase profits across the Group through business development that includes **total solutions** that utilize expertise and management resource from all Group companies.

- To secure profits amidst an intensifying competitive environment, we will promote **kaizen** activities across the group, and strive for improvements in productivity by steadily accumulating results in terms of the volume and cost of operations. In addition to improving productivity and added value along with thoroughly reducing costs through the promotion of **digital transformation**, we aim to maximize the effect of digitalization by increasing synergy through integration with kaizen activities.

Enhancement of Affordable Services to Meet Customer Needs

- So that many customers choose HEPCO as their energy supplier, we will further enhance our services by providing affordable joint electricity and gas services and pursuing alliances with other companies.

Affordable electricity rate plans



- We offer various electricity rate plans, including the “Energy and Point Plan,” where customers get cheap energy rates and collect points.
- For other electricity rate plans, please see the [HEPCO website](#).



Discount package services provided through our alliances

- At HEPCO and Hokkaido Electric Power Co-Creation, we proactively conclude business alliances with companies with services, products, or connections with customers that we do not have.



HEPCO electricity or gas customers get discounted gasoline and kerosene.



Customers who use an au cell phone will get discounted electricity and gas.



We support the new lives of customers who have applied for a property with Joguchi Atom with affordable energy plans.

Affordable and safe city gas plans

- In October 2021, we expanded our pricing plans, and we are providing a wide range of services to customers who use city gas in central Hokkaido.

Eligible customers

Customers who use gas central heating
Customers who have a dedicated gas meter for heating appliances
Customers who use FF-type (forced flue) heaters and boilers
Customers who use city gas for cooking or to heat water



HEPCO Gas Plans

Home Central Heating

Regular Rate + Heating

FF-Type Heaters and Boilers

Regular Rate

+ Also, free callout service for all customers!

A maintenance professional will rush to your home when you have trouble with your gas appliances



Free callout fees that cost several thousand yen at other companies!



Enhancement of Services to Solve Customer Issues

- We offer services that meet customers' needs, such as more efficient energy use and RE100* compliance. For customers who are using petroleum-based energy, we will support the reduction in CO₂ emissions by switching to gas in addition to electrification.
- We will provide total solutions by combining the technology and expertise of the HEPCO Group.

*RE100: A framework where companies aim to use 100% renewable energy for the electricity required for business activities.

ESP (Energy Service Provider) business

- ▶ We provide comprehensive services from the "adoption of energy-saving and high-efficiency devices" to "energy procurement" and "operation of facilities."
- ▶ Through our services we are supporting the new symbol of Hokkaido, ES CON Field Hokkaido.



Illustration of the ES CON Field Hokkaido
(Scheduled to be complete in January 2023)

LNG supply business

- ▶ We are safely supplying price-competitive LNG with tanker trucks.
- ▶ We procure fuel in a highly economical and stable manner by continually working on diversifying supply sources while utilizing two tanks with Hokkaido's largest storage capacity of 460kL.



HEPCO's Ishikari LNG Terminal No.4 Tank
(One of Japan's largest aboveground LNG tanks)

Price plans for net zero CO₂ emissions

(Carbon F Plan)

- ▶ This is a price plan for net-zero CO₂ emissions that uses the Non-Fossil Energy Certificate derived from renewable energy held by HEPCO.

Hokuden Information Technology, Inc. is conducting business in an eco-friendly manner by using this service for their H-IX Data Center.

(Carbon F Premium Plan)

- ▶ In addition to the environmental value of net-zero CO₂ emissions that we provide with the Carbon F Plan, the Carbon F Premium Plan offers customers RE100 compliance through electricity that is 100% derived from renewable energy—mainly from HEPCO-owned hydroelectric power sources.

Consultation business for J-Credit utilization

- ▶ HOKUDEN SOGO SEKKEI Corporation supports customers' credit creation and utilization as a Soft Support Agency† of the J-Credit Scheme*.



Ｊ-クレジット制度

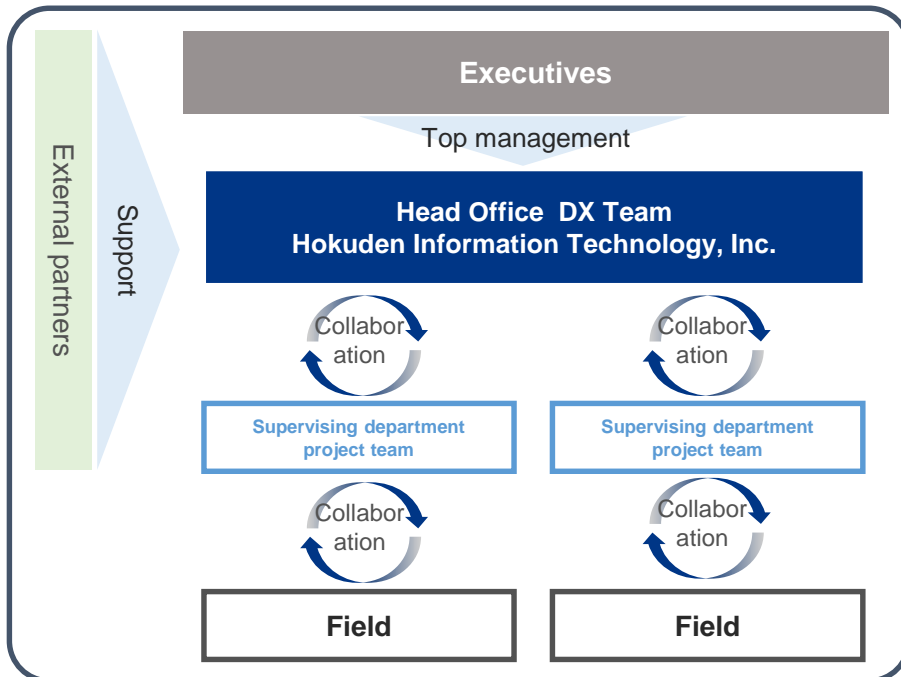
*A scheme where the Japanese Government certifies reduction in greenhouse gas emissions and increase in greenhouse gas absorption through the installation of energy-saving equipment as "credit"

† An agency that the Japanese Government entrusts to conduct free energy-saving assessments and support creating business plans.

Digital Transformation (DX) Promotion

- At the HEPCO Group, we define digital transformation as “business transformation using digital technology” and “a transformation in awareness to continuously embrace change.” We are thoroughly promoting digital transformation and have designated it as one of the pillars of our measures for the reinforcement of management fundamentals.

◆The HEPCO Group's promotion structure for DX



First Hokkaido company to receive DX Certification*

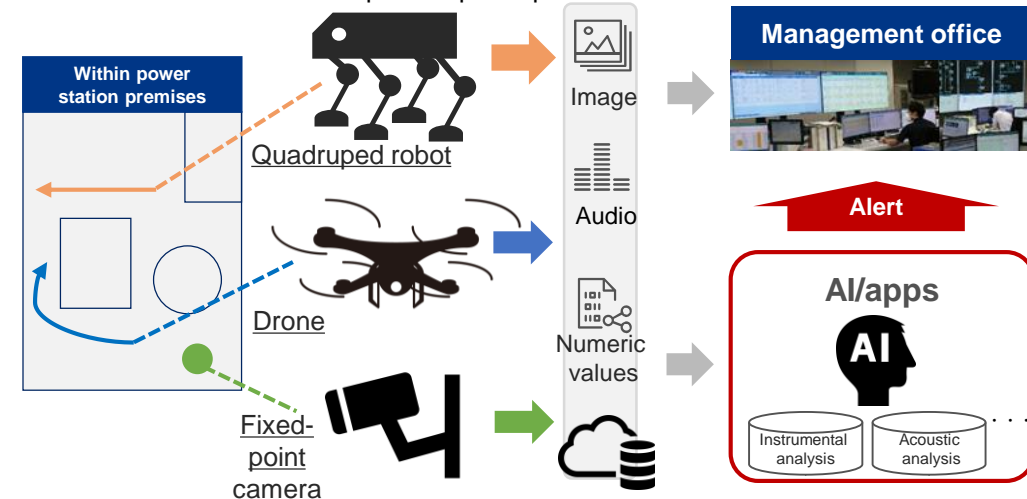
- In February 2022, we obtained DX Certification under METI's certification system.



*A certification from the Japanese Government given to companies confirmed to be “DX-Ready,” a state where companies are ready to transform their business digitally.

Streamlining and enhancement of inspection patrol operations at power plants

- Within the local 5G communication environment built by **Hokkaido Telecommunication Network Co., Inc.**, we aim to improve the efficiency and sophistication of our operations by having quadrupedal robots conduct work that humans do in the inspection patrol process.



Sophistication of operations using no-code AI tools†

- We are proceeding with investigations into the sophistication of operations using machine learning for various sectors, including marketing, power demand forecasting, and equipment failure detection.



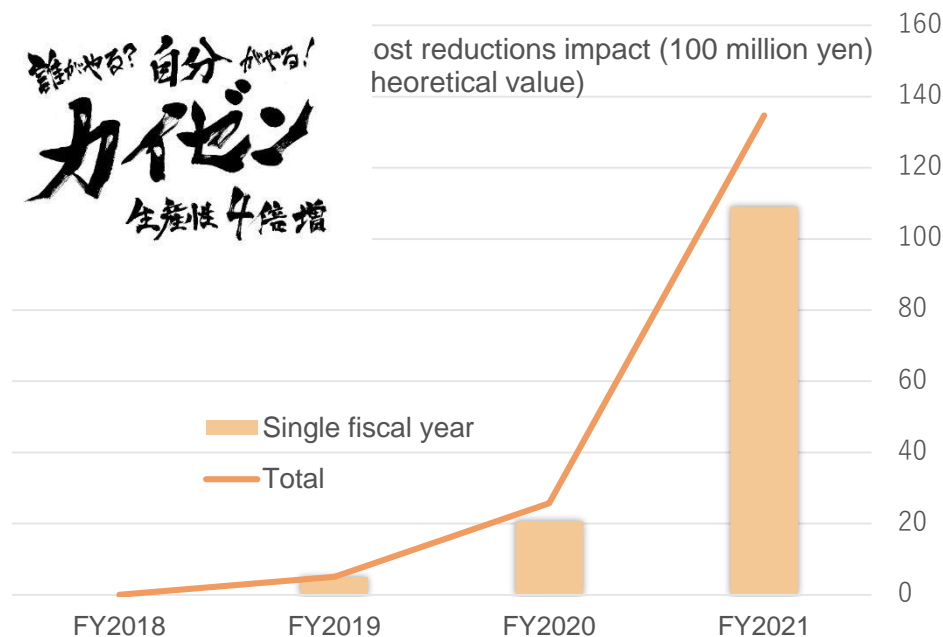
†AI cloud platform where users can create AI models tailored to their needs without requiring advanced programming knowledge.

Drastic Streamlining and Cost Reductions

- We will achieve drastic streamlining and cost reductions through constant review of all of our operations.
- We will accumulate concrete outcomes towards our goal of quadrupling productivity through the vigorous promotion of kaizen activities, including the robust promotion of large-scale kaizen projects that are expected to bring significant impacts and the expansion of these activities to Group companies.

Permeation and expansion of kaizen

- ▶ We are increasing the number of kaizen projects while disseminating initiatives to quadruple productivity within HEPCO.
- ▶ We have developed over 2000 projects across the HEPCO Group to date, and we are steadily accumulating the benefits of cost reductions.



誰かや？自分かや！
力イゼン
生産性4倍増

※ Aggregate value of the impact of initiatives at HEPCO and the HEPCO network

Kaizen in recovery work for power outages on the HEPCO network

- ▶ Recovery work for high-voltage line disconnections where workers handle heavy power lines at high places occurs 200 times a year and previously took four workers around 64 minutes to complete. However, through kaizen measures such as the development of tools for raising power lines and improving the working environment, we made it possible for the work to be completed by one worker in 31 minutes.
- ▶ We strive to increase the speed of recovery work for power outages while improving operational efficiency and quality.



Two workers
(Raise and hold broken power lines)



We have made it possible for the work to be completed by a single worker

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2. Major Initiatives for FY2023

The Early Restart and Improved Safety of Tomari Nuclear Power Station

- The **restart of Tomari Nuclear Power Station** is critical to achieve zero-emission power generation for the realization of carbon neutrality.
- Through **appropriate response to reviews on compliance with new regulatory standards**, we will aim for the swift acquisition of authorization of installation modification, and we will bring together all our resources and proceed rapidly and steadily with initiatives.
- After the restart, we will use the supply capacity of Tomari Nuclear Power Station to supply low-carbon electricity both inside and outside of Hokkaido. We will lower electricity rates in light of reducing the supply demand-related costs.
- In addition, we will promote initiatives to reduce the risk of accidents to **further improve safety at the Tomari Nuclear Power Station.**

Response to Reviews on Compliance with New Regulatory Standards

- We have placed activity assessments of rifts within the grounds of nuclear power plants as a top priority issue. Thanks to thorough explanations at the review meetings, we received the evaluation of “in general, adequate investigations are being conducted” at the July 2021 review meeting.
- We will continue to address issues with all of our resources, including the other major review items. We will work on the early restart of the Tomari Nuclear Power Station under the fundamental premise that safety is assured.

	Screening items	Explanation
Earthquakes, tsunami, etc.	Earthquakes	Assessment of seismic motion formulated without an identified seismic source
	Tsunami	Assessment of tsunami caused by an earthquake anticipated along the eastern edge of the Japan Sea
	Volcanoes	Assessment of possible volcanic activity Assessment of the thickness of pyroclastic fallout (volcanic ash)
Plant facilities	Seismic design policy	Assessment of the impact of sea wall foundation liquefaction due to earthquake
	Tsunami-resistant design policy	Assessment of impact if a tsunami damages seawall
	Facilities subject to design basis Severe accident management facilities	Already mostly explained other than matters relating to earthquakes and tsunami

Final determination
of the design basis
ground motion and
tsunami

Result

Assessment of
impact of
earthquake/tsunami
on plant facilities*

*Includes the impact of the
thickness of pyroclastic
fallout (volcanic ash)

Permission to amend reactor license

Earthquakes, tsunami, etc.

- Regarding seismic motion, we explained the results of the “assessment of seismic motion formulated without an identified seismic source” based on the revisions of the review guide at the review meeting in January 2022 (for Tomari Reactor 3).
- We will continue to examine the assessment of seismic motion and conduct explanations at future review meetings.

Plant facilities

- In order to further enhance safety, the existing seawall will be redesigned to a bed-rock support structure, and we explained the design policy at the March 2022 review meeting.
- We will continue to explain the design conditions and design policies at the review meetings and finalize the basic structure of the seawall.

- We are promoting multiple and diverse safety measures to ensure that functions that protect the safety of nuclear power plants, such as power supplies and cooling facilities, are not lost due to natural phenomena such as earthquakes and tsunamis.
- We aim to create a power plant that all stakeholders trust through ongoing assessment and improvement of our activities towards realizing world-class excellence in safety.

Maintenance and improvement of the technical expertise of Tomari Nuclear Power Station employees

- ▶ In order to implement a more decisive and staunch response when a severe accident arises, HEPCO has systematically instituted a diverse range of training programs to maintain and improve our response capabilities.



Training to replace the water supply in order to keep cooling the fuel

Maintaining the shared value that safety is our top priority

- ▶ HEPCO's top management is working on activities to instill an awareness that placing top priority on safety is at the foundation of all issues that HEPCO management addresses through informal meetings with power station and contractor personnel.



HEPCO president giving instructions and talking with personnel

Communication with the local community

- ▶ HEPCO has launched the "HEPCO Energy Campaign" in 20 municipalities within the Shiribeshi district. This campaign communicates various energy-related information that includes safety measures in place at Tomari Nuclear Power Station to community residents.



Communication activities

Deployment of 2,120 m fire belt

A fire belt is maintained so that if a forest fire is sparked around the power station, it will not spread to areas inside the power station premises.

Deployment of 14 emergency power supply units

In preparation for a situation where emergency power within the power station is lost, alternative emergency generators (permanent equipment) and mobile alternative power-generating vehicles (mobile equipment) totaling 14 units have been deployed.

Deployment of 14 water pumping vehicles

In preparation for a situation where permanent pumps supplying water are unusable, 14 mobile water pumping vehicles have been deployed.

Seawall installation (under investigation)

To further enhance safety, and in consideration of the impact of the liquidation of the ground where the seawall is installed due to an earthquake, we will install a new seawall with a structure that is directly installed into the bedrock.

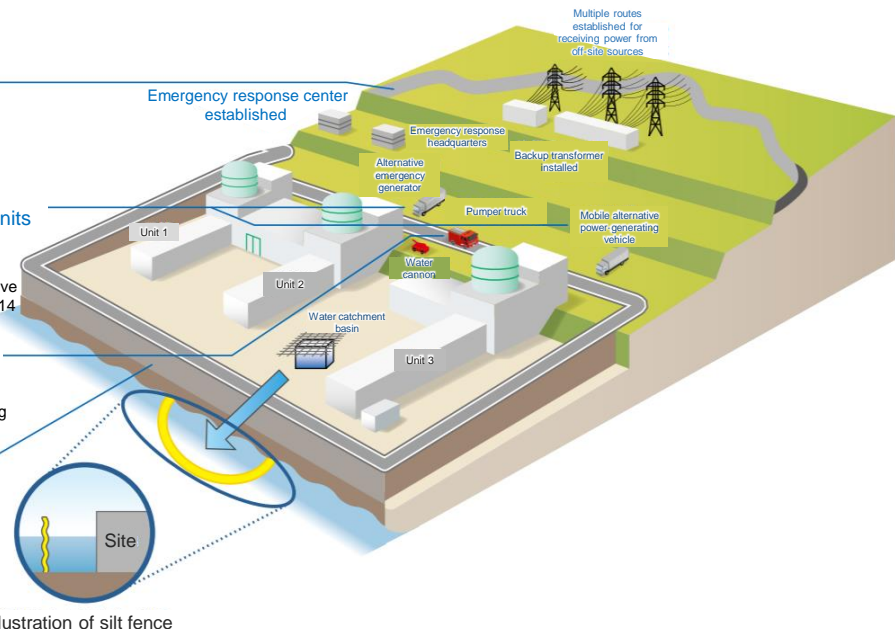


Illustration of silt fence

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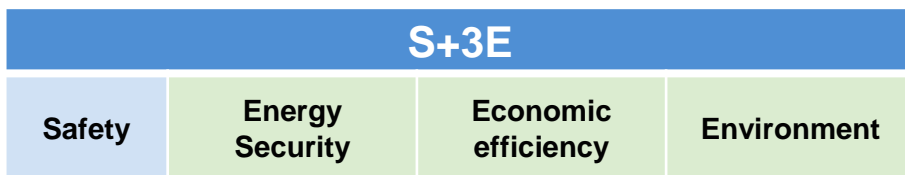
2. Major Initiatives for FY2023

Ensuring the Stable Supply of Energy

- The policy of making renewable energy a main source of power for the realization of carbon neutrality in 2050 was reconfirmed in the 6th Basic Energy Plan that the Cabinet approved in October 2021.
Hokkaido is considered a suitable region for renewable energy, and we forecast that the adoption of renewable energy in Hokkaido will increase further in the future.
- The HEPCO Group, under the fundamental premise that safety is assured will proceed with investigations into an **optimal energy mix** that takes into account the balance between economic efficiency, eco-friendliness, and the stable supply of energy. We will also promote initiatives aimed at **creating a next-generation electricity network** that balances the further increase in the adoption of renewable energy with the stable supply of energy.

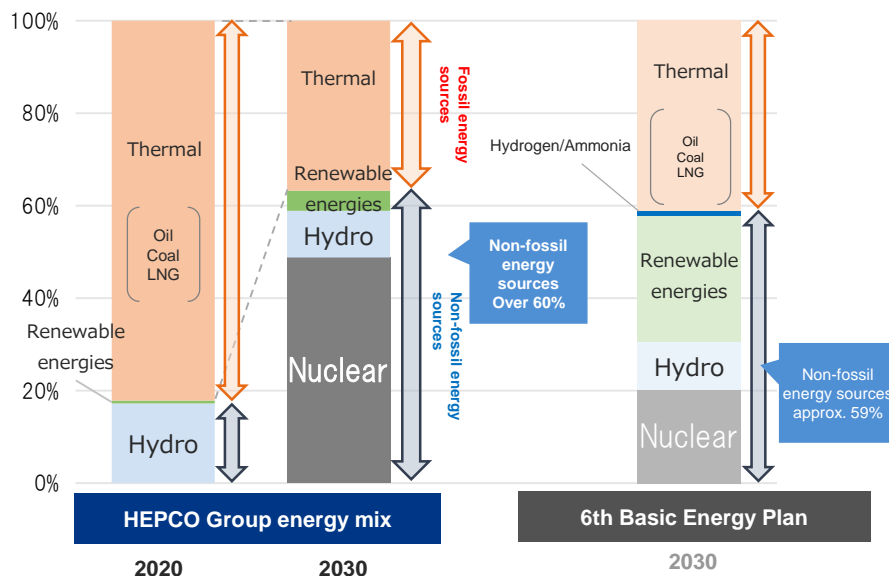
Energy Mix

- From the perspective of S+3E, we are working towards creating a balanced and competitive energy mix while also proceeding with investigations into a super-long-term energy mix focused on carbon neutrality.



Future vision for energy mix at the HEPCO Group (2030)

- In the Japanese Government's 6th Basic Energy Plan, non-fossil energy sources will expand to account for 59% of energy in 2030 through policies to make renewable energy a main source of power.
- We aim to achieve 60% or more non-fossil energy sources in our 2030 energy mix by restarting Tomari Nuclear Power Station and adopting renewable energy.



FY2023 Power Source Development Plan

	Power station	Output (10,000kW)	Construction start date*	Date of operation start/ acquisition or transfer/ suspension or decommission
Under construction	Kyogoku Unit 3 (Pumped storage hydropower)	20	2001.9	FY2033 or later†
	Shintoku (Hydropower)	2.31	2019.4	2022.6
In preparation for construction	Ishikariwan Shinko Unit 2 (LNG-fired thermal)	56.94	2027.3	2030.12
	Ishikariwan Shinko Unit 3 (LNG-fired thermal)	56.94	2032.3	2035.12
To be acquired ‡	Ono (Hydropower)	0.15	-	2022.4
	Ainumanai (Hydropower)	(0.2)	-	2023.5
To be transferred ‡	Ono (Hydropower)	(0.15)	-	June 2023
	Isoyagawa No.1 (Hydropower)	(0.24)	-	May 2024
	Isoyagawa No.2 (Hydropower)	(0.125)	-	2024.8
	Nanae (Hydropower)	(1)	-	2024.12
Suspended or decommissioned	Onbetsu Units 1&2 (Oil-fired thermal)	(14.8) (7.4×2 units)	-	Pending (to be decommissioned)

*Construction start date is the notification date per Article 48 of the Electricity Business Act.

†Operation start date postponed to FY2033 or later from the FY2032 or later listed on the FY2022 Energy Supply Plan

‡The transfer and acquisition of hydroelectric power businesses due to the implementation Hydroelectric Power Station Alliance Business in Southern Hokkaido (Press release October 28, 2021)

Ono power station will be acquired from HOKUDEN ECO-ENERGY Co., Inc. and will be given to Donan Suiryoku Hatsuden LLC. together with the four other power stations.

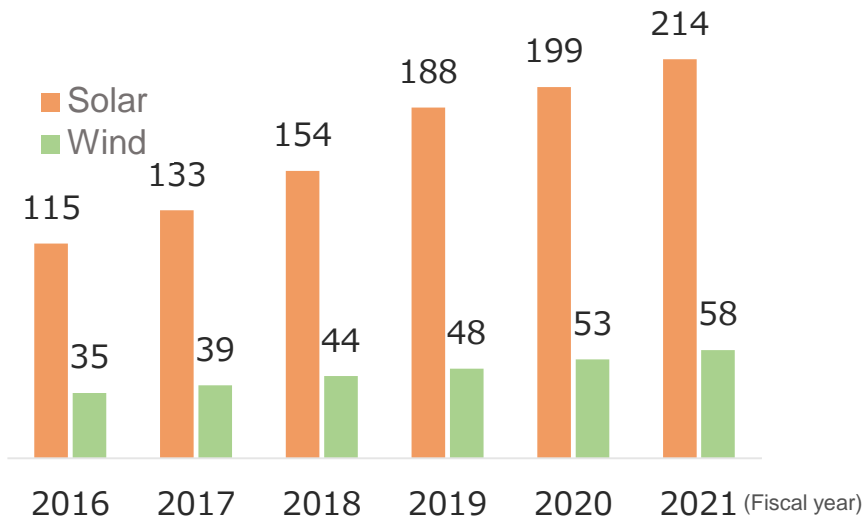
Creating a Next-Generation Electricity Network

- At **Hokkaido Electric Power Network, Inc.**, in order to utilize Hokkaido's abundant renewable energy resources, we are striving to reach a balance between ensuring the stable supply of energy and increasing the amount of connected renewable energy by acquiring new technology and expertise.

Renewable energy connection status

- The interconnection capacity for renewable energy in Hokkaido at the end of January 2022 was: solar 2,140MW, wind 580MW, biomass 510MW, and geothermal 30MW, which equates to over 90% of Hokkaido's average annual power of 3,500MW.

(10,000kW)



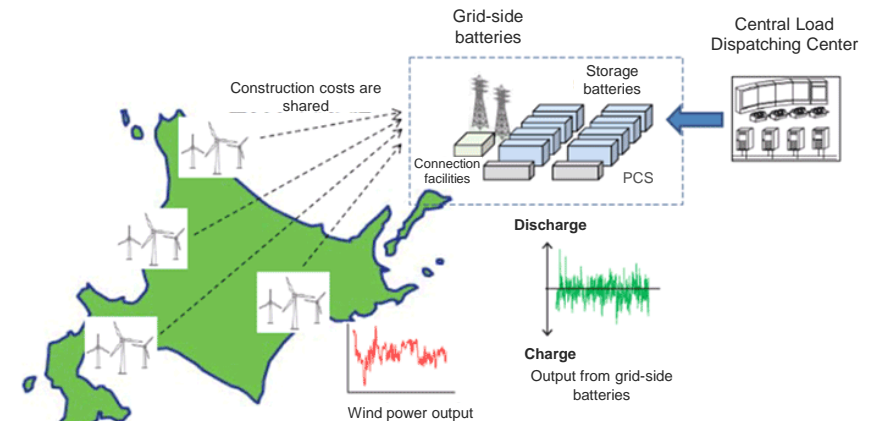
*A connection subject to capacity constraints to transmission lines at peak times where grid reinforcement is not conducted

†A method where output is controlled for flexible power sources instead of renewable energy at peak times on transmission lines

‡A grand design of power line network facilities set forth by the Organization for Cross-regional Coordination of Transmission Operators that corresponds with making renewable energy a major source of power and energy supply resilience

Initiatives to increase the connection of renewable energy

- We began accepting applications for non-firm connections* in January 2021. As an initiative toward the early connection of non-firm connections, we plan to adopt redispatching (utilization of flexible power sources)† from December 2022.
- We are working on grid-side batteries (600MW in Phase I and 400MW in Phase II) to collect wind-generated power.



- Taki (Shinshin-Kitahon) HVDC Link and investigations of the Master Plan‡, we will work to increase the connection of renewable energy while working to ensure the stable supply of energy.

Strengthening Resilience

- The increasingly devastating natural disasters in recent years have prompted calls for strengthening the resilience of the electric power infrastructure.
- As a responsible energy provider, the HEPCO Group will come together to work on the stable supply of power and strengthen resilience.

Action Plan for responding to large-scale service interruptions

- ▶ In order to make use of our investigations into power outages throughout Hokkaido during the Hokkaido Eastern Iburi Earthquake for the future continued stable supply of energy and information communication and coordination, we have consolidated specific countermeasures into an Action Plan, and we are steadily implementing these countermeasures.

Preparation for a long-term service interruption

- ✓ Conduct group-wide training for a blackout scenario
- ✓ Review the business continuity plan in response to an earthquake directly beneath Sapporo,

etc.

Enhance coordination

- ✓ Strengthen systems for communicating with Hokkaido Prefecture and local municipalities
- ✓ Augment systems for coordinating information with the Hokkaido Regional Development Bureau in order to facilitate entry into areas where landslides have occurred
- ✓ Enter into disaster prevention agreements with relevant institutions so as to extend logistical support for long-term recovery work and assistance across wide areas,

etc.

Communicate information

- ✓ Communicate information across a range of media, including the company website, Facebook, Twitter, radio, etc.
- ✓ Revamp the power outage information system to communicate information rapidly
- ✓ Communicate information in English, Chinese and other languages for foreigners residing in Hokkaido,

etc.

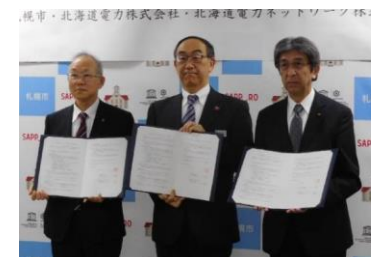
Develop a restoration system

- ✓ Develop a system for receiving support vehicles from other electric power companies
- ✓ When roads have been cut off, utilize helicopters and drones for patrolling, collecting information, etc. (drones have been deployed to all business offices in Hokkaido)

etc.

Mutual cooperation with local communities during large-scale disasters

- ▶ We are creating mutual-cooperation frameworks with local governments aimed at swiftly stabilizing residents' lives by accelerating recovery work for power outages within Hokkaido.
- ▶ As of April 2022, we have concluded disaster prevention agreements with 165 municipalities.



Concluding an agreement with Sapporo City

Rapid provision of information regarding power outages

- ▶ We will strive to reduce inconvenience by quickly communicating information regarding power outages.

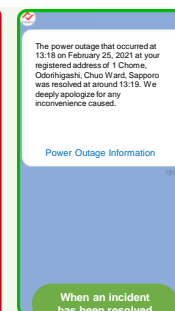
- ✓ Get information regarding power outages in your registered area through **LINE** push notifications

□ Scan here to add HEPCO as a friend



- ✓ You can inquire about power outages and facility downtimes through **chat**

□ Scan here to make inquiries



- ✓ **AI** will give you power outage information about the address that you tell it over the phone
- **AI automatic response service**
[0120-165-597] Toll free, available 24 hours a day

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- (5) Priority Initiative Fields for Carbon Neutrality**
 - 1) Increase adoption of **renewable energy**
 - 2) Promote **electrification and energy saving**
 - 3) Promote **Research and Development**
- (6) ESG Initiatives

2. Major Initiatives for FY2023

Priority Initiative Fields for Carbon Neutrality

- To achieve decarbonization, in addition to the restart of Tomari Nuclear Power Station, we need to solve issues such as **the adoption of renewable energy, hydrogen and ammonia co-firing in thermal power generation, and the introduction of technology such as CCUS.**
- On the other hand, an **increase in electrification** is expected due to electricity's increasing competitive value across energy as a whole. Activities towards the realization of carbon neutrality such as **the utilization of hydrogen generated by renewable energy** provide a chance for the HEPCO Group to make significant progress as a general energy company.
- The HEPCO Group will not only adapt to changes in the environment but lead the societal switch to carbon neutrality so that we can grow sustainably together with local communities.

Increase Adoption of Renewable Energy

- Regarding renewable-energy power generation developed by the HEPCO Group, initially, we will quickly achieve the goal of “increasing output by 300MW or more by FY2031 (including power sources outside Hokkaido)” as outlined in our Management Vision. After that, we will continue to proactively increase the amount of renewable-energy power generation we develop.
- In May 2022, we will establish a team dedicated to developing renewable energy at the Group Head Office, and we are accelerating initiatives.

Renewable energy business

- The HEPCO Group joined a woody biomass power generation project in Tomakomai City (50MW, of which 10MW is HEPCO Group volume) and the total power generation for the Management Vision goal of increasing output by 300MW or more by 2030 was **51MW*** as of April 2022.
*Power source volume for which implementation was confirmed after the announcement of the Management Vision
(Includes volume before operation but not the replacement of the existing power source)



Tomakomai Biomass Power Station
(Operation to start in April 2025: Illustration)



Binary Geothermal Power Station in Mori Town
(Operation to start in November 2023: Illustration)



Provided by Green Power Investment Corporation

Ishikari Bay Offshore Windfarm
(Operation to start in 2023: Illustration)



Solar power station in Mexico

- The HEPCO Group provides the below services for renewable energy facilities
 - Hokkai Electrical Construction Co., Inc.:** Design, installation, and maintenance of electric facilities, etc.
 - HOKUDEN SOGO SEKKEI Corporation:** Environment surveys, design, etc.
 - Hokkaido Power Engineering Co., Inc.:** Maintenance of power facilities, etc.

Maximize use of hydroelectric power

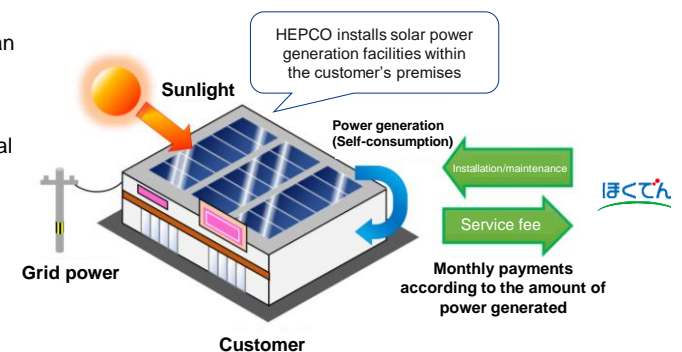
- The HEPCO Group and **HOKUDEN ECO-ENERGY Co. Ltd.** are replacing outdated hydroelectric power stations and are effectively utilizing valuable water resources.
- The Shintoku Power Station to be acquired in June 2022 is scheduled to start operations with an output of 23MW.



Conceptual drawing of Shintoku Power Station

Solar power PPA (installation of facilities, ownership, power supply) services

- We are developing services so customers can use renewable energy generated from solar power facilities without having to pay for the initial investment.



Utilization of ESG finance

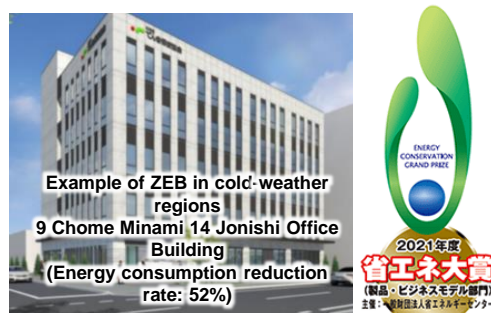
- In December 2021, we issued 5 billion JPY of Green Bonds. These are corporate bonds where the funds raised can only be used to develop renewable energy or related projects.
- We will continue to diversify and stabilize funding through the continued utilization of ESG finance, including the above, and connect this to business promotion.

Promote Electrification and Energy Saving

- In Hokkaido, which is considered to have a high dependency on fossil fuels due to demand for heating, travel, and transport, we are working on expanding electrification and promoting energy conservation to significantly contribute to the reduction of CO₂.
- **Hokuden Service Co., Inc.** provides information about electrification and deals in Hokkaido through their portal site [Denpota](#).

ZEB consulting business

- ▶ As a leading consulting company for ZEBs (Net-Zero Energy Buildings) in Hokkaido, together with **HOKUDEN SOGO SEKKEI Corporation and Hokkai Electrical Construction Co., Inc.**, we provide comprehensive support from design and planning to analysis and operation improvements after construction.



The Project for the Dissemination and Promotion of Cold-Region ZEB in Hokkaido was awarded the Energy Conservation Center Chairman's Award

Furatto Solar: An installation service for solar power facilities

- ▶ A service where customers who will build a single-family home can install solar power facilities with no initial cost.
- ▶ Customers can use the electricity produced for their homes and sell what they do not use back to the grid.
- ▶ We also provide storage batteries, EcoCute units, and EV charging stations as optional devices.



[Four benefits to using Furatto Solar]

- 1) No initial cost
- 2) Affordable (cheap fixed rate)
- 3) No repair cost for breakdowns
- 4) After ten years, we will give it to you for free
- 5) You can use electricity even during power outages

Electrification of the transport sector

- ▶ We have been implementing an EV carsharing demonstration project since April 2022 as an initiative toward the dissemination of Evs.
- ▶ We have set up an EV charging spot managed and operated by Tesla Motors Japan (Tesla Supercharger) within the grounds of our Head Office.



EV used in the carsharing demonstration
Nissan Leaf (pictured left) and Tesla Model 3 (pictured right)



Tesla Supercharger

Elanade, The Kitchen: An experience facility for electric kitchen appliances

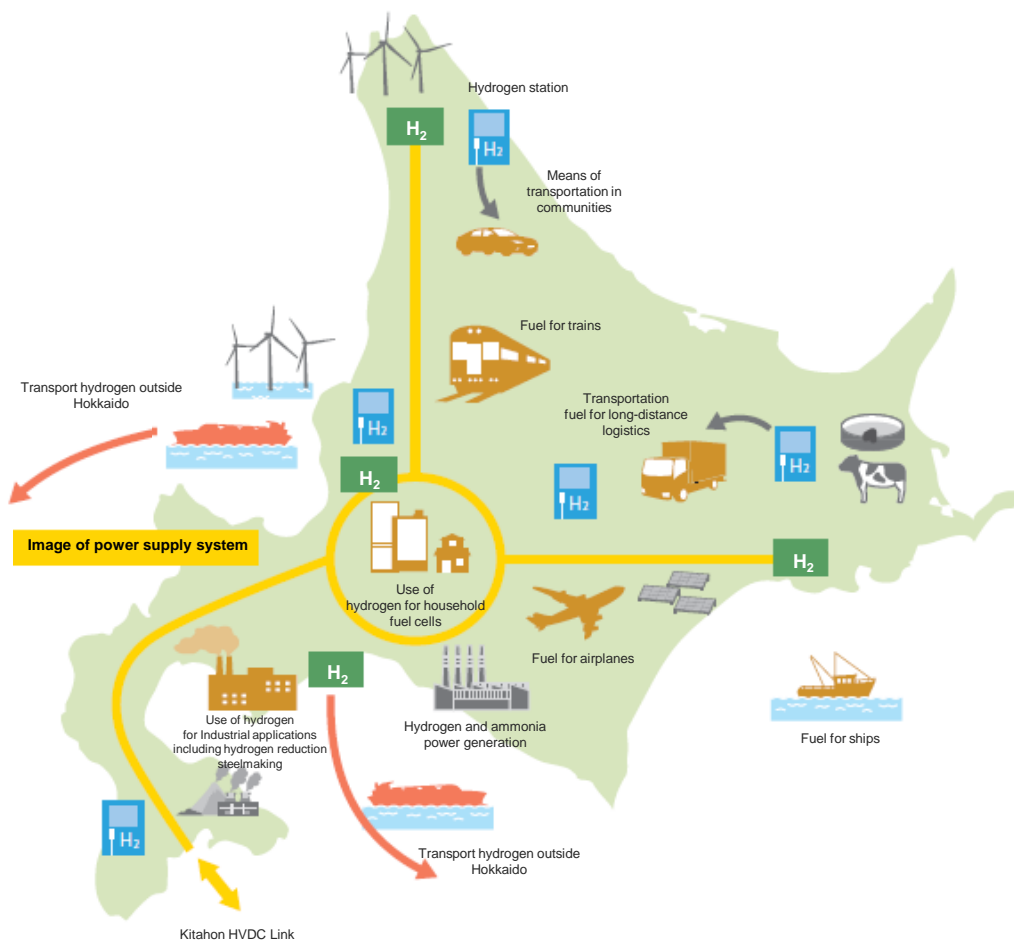
- ▶ A commercial kitchen experience facility where visitors can test electric kitchen appliances from various manufacturers.
- ▶ We assist people who work with food to create a comfortable and functional kitchen.



Promote Research and Development: Utilization of Hydrogen

- We cooperate with governments at the national, Hokkaido and local level, along with other companies, to create a hydrogen supply chain where hydrogen created from the abundant renewable energy generated in Hokkaido is utilized in various fields.

◆Illustration of future hydrogen use in Hokkaido



Hokkaido Hydrogen Business Platform

- This platform was created in July 2021 by a proposal from the HEPCO Group aimed at the rapid realization of the construction of the hydrogen supply network and making Hokkaido the pioneer region for the utilization of Japanese green hydrogen.
- We are developing activities to create projects that will lead to social implementation by encouraging synergy by connecting the ideas and needs of Hokkaido companies with the expertise and technology of companies outside of Hokkaido.

Participating companies: 34 (as of the end of March 2022)

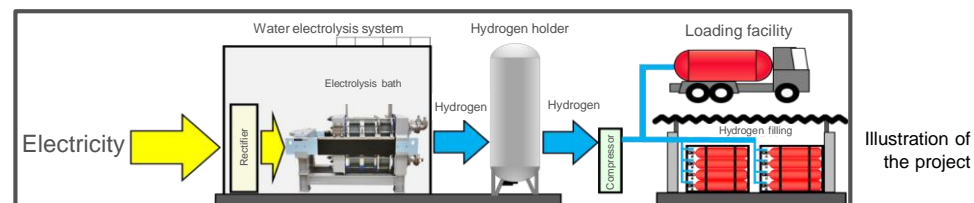
Producing hydrogen using surplus power generated by renewable energy (NEDO research project)

- With a view toward hydrogen production utilizing surplus power generated from the offshore wind farm under construction at Ishikariwan Shinko Port, we are conducting research that aims to identify technological, economic, systemic, and other issues and realize social implementation.

Adoption of hydrogen manufacturing equipment (a METI-subsidized project)

- Through using hydrogen production to absorb surplus power and output fluctuation of renewable energy, we will strive to further increase the adoption of renewable energy and promote the decarbonization of energy use by promoting the dissemination of hydrogen.

Facility scale: 1MW-range (amount of hydrogen produced: 200Nm³/h)

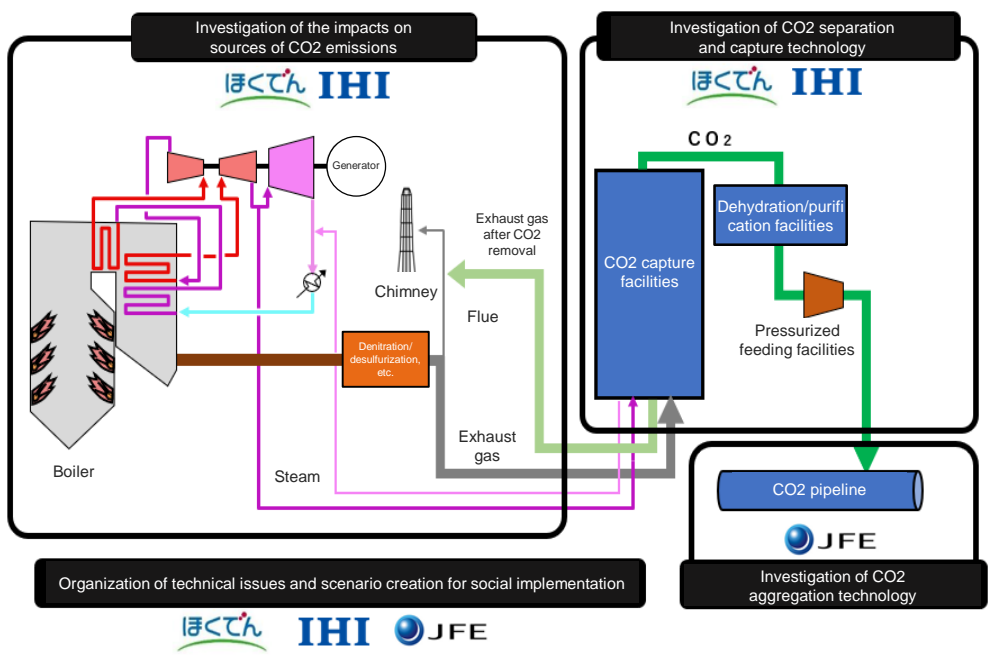


Promote Research and Development: Decarbonization of Thermal Power Generation

- We are working towards decarbonizing power sources by mobilizing all available means, including the use of innovative technologies such as CCUS and the utilization of hydrogen and ammonia.

CCUS R&D and demonstration (NEDO research project)

- Towards the separation and collection and pipeline transportation of CO₂ at coal-fired power stations, we are investigating and organizing issues regarding separation and capture technology for CO₂ from large-scale commercial coal-fired power stations and aggregation technology to enable the captured CO₂ to be used.
- We are conducting investigations at our Tomatoh-Atsuma Thermal Power Station



Investigations into ammonia co-firing at coal-fired thermal power stations

- We believe that co-firing ammonia at coal-fired thermal power stations is an effective low-carbon technology as no CO₂ is emitted when ammonia is burned.
- Looking ahead to the adoption of co-firing ammonia at coal-fired power stations by around 2030, we are proceeding with investigations by collecting the latest information concerning supply chains and other companies' demonstration projects.

Participation in the Tomakomai CCUS Project and the Zero Carbon Promotion Association

- We are participating in an association aimed at promoting demonstration projects related to decarbonization that use technology such as CCUS and utilization of hydrogen and ammonia.
- We are accelerating investigations into concrete policies for decarbonization while collecting information through coordination with other companies.

<Reference: Suspension and decommission plans for aging oil and coal-fired power stations>

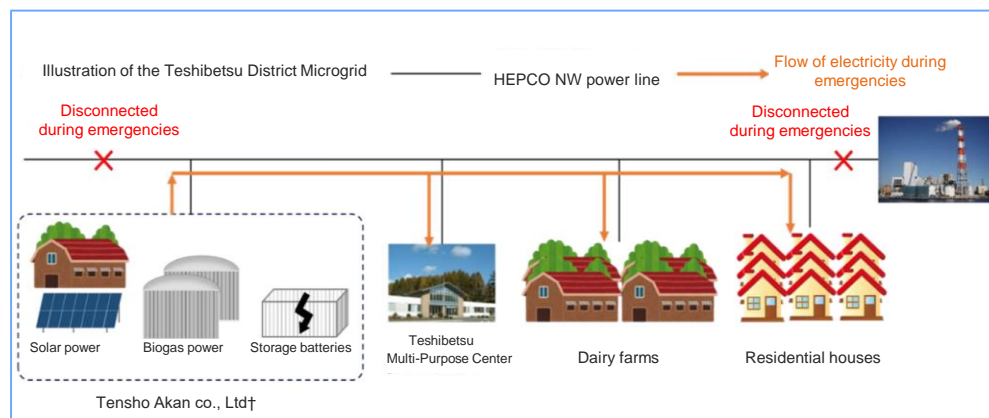
	Power station	Output	Suspension/decommission date
Suspension	Naie Units 1&2 Coal	(350MW)	2019.3
decommissioned	Onbetsu Units 1&2 Oil	(148MW)	TBD

Promote Research and Development: Creation of Cyclical Local Energy Systems

- We will work to address regional economic development and social issues through cooperation targeted at the adoption of locally distributed power sources and strengthening resilience.

Project to create a local microgrid* (Akancho, Kushiro City)

- We are implementing an initiative that aims to provide electricity to residents during large-scale power outages caused by natural disasters by disconnecting the transmission and distribution network of a specific area in the Teshibetsu District in Akancho from the HEPCO network and using solar and biogas power facilities within the area.
- We are promoting this project via the cooperative framework, "Construction Project Consortium for the Kushiro City Akancho Microgrid," that we formed with Kushiro City and other partners.



*An energy system that continues to provide power through renewable and other power sources by using the existing power line network and disconnecting a specific region from other power grids during large-scale power outages caused by natural disasters

†A company responsible for the operation of biogas power generation facilities, supplying manure, electricity and heat usage, and providing safety checks during emergencies

Local government SDGs model project (Niseko Town, Abuta District)

- In Niseko Town's "Niseko Life and Model District Creation Project," aimed at promoting local decarbonization and regional regeneration, we are working on community development based on the principles of the SDGs by concluding comprehensive cooperation agreements with businesses funded by Niseko Town.
- We provide support for energy-saving homes through smart electrification and energy management that utilizes renewable energy and technical support using our expertise concerning strengthening resilience. We are also investigating an EV carsharing service suitable for the region.














Illustration of the model region when complete

- (1) Progress in Achieving our Management Goals
- (2) Reinforcement of Management Fundamentals
- (3) The Early Restart and Improved Safety of Tomari Nuclear Power Station
- (4) Ensuring the Stable Supply of Energy
- (5) Priority Initiative Fields for Carbon Neutrality
- (6) ESG Initiatives**

2. Major Initiatives for FY2023

ESG Initiatives

- The HEPCO Group regards the below items as important issues (materiality) concerning ESGs and is proceeding with concrete initiatives while sincerely confronting the social issues outlined in the SDGs.

	Materiality	Major ESG initiatives	Relevant SDGs
“E” Environment	Steady progress of initiatives toward the realization of carbon neutrality in 2050	Response to issues related to global and local environments	    
“S” Social	Co-creation with communities Maximizing employee potential	Providing products and services centered on electricity	    
		Sincerely responding with results to the expectations of communities, shareholders, and investors	
		Transparent and fair transactions with business partners	
		Creating a safe and rewarding workplace for employees	
“G” Governance	Thorough compliance Timely and appropriate disclosure of information related to business activities Proactive communication with stakeholders		

Sustainable Development Goals: SDGs

A declaration of 17 goals adopted at the UN Summit in September 2015 to be achieved by 2030 regarding poverty, hunger, energy, climate change, and other matters

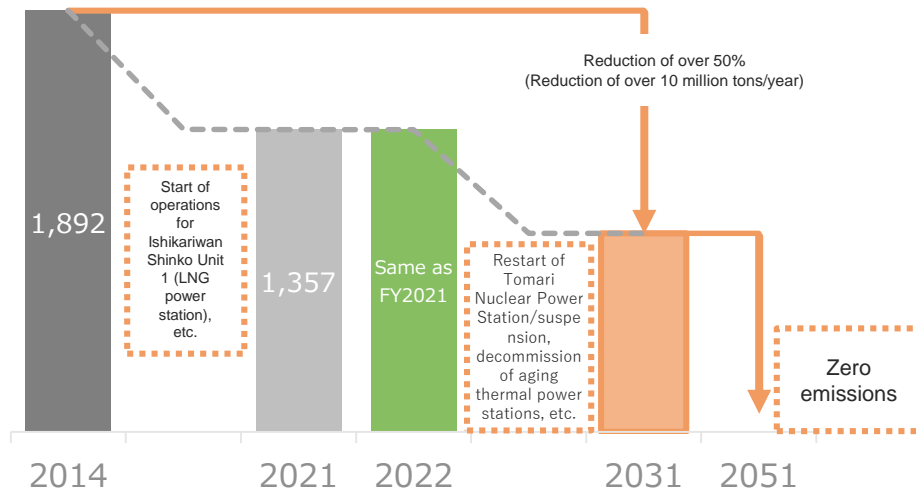
E (Environment) Initiatives

- As a company rooted in Hokkaido with its abundant nature, we will strive to reduce the environmental impact in all business areas to maintain this natural environment we have been blessed with into the future.
- Towards FY2031, we will contribute to the realization of Zero-Carbon Hokkaido to achieve a reduction in the CO₂ emissions of the power generation division at least by half compared to FY2014 levels (a decrease of over 10 million tons/year), along with doing our utmost to meet the challenge of achieving carbon neutrality in Hokkaido by 2050.

Reduce CO₂ emissions from the power generation division

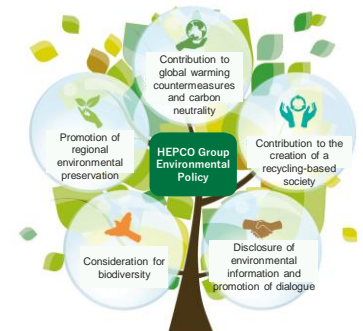
- The CO₂ emissions for FY2021 were **13,570,000 tons***, a **28% decrease compared to FY2014 levels (a decrease of 5,350,000 tons/year)**, and the **emissions for FY2022 are expected to be a similar amount.**
*The amount of CO₂ emitted by the power sources of the power generation division of the HEPCO Group when generating power
- We will continue to work toward reducing CO₂ emissions through policies such as the restart of Tomari Nuclear Power Station and the suspension and decommission of aging oil- and coal-fired power stations.

(10,000 tons of CO₂)



HEPCO Group Environmental Policy (revised December 2021)

As a corporation rooted in Hokkaido, a region with an abundance of nature, we strive to reduce the environmental impact associated with our business activities and preserve the natural environment, while pursuing sustainable business growth and the achievement of a sustainable society by contributing to the development of the regional economy through a stable supply of inexpensive power.



Afforestation that takes into account biodiversity

- In September 2021, we concluded an agreement with the Hokkaido Government regarding “Afforestation by Hokkaido Companies.”
- In collaboration with the Hokkaido Afforestation College, we are planting and cultivating trees aimed at reforestation, restoring and preserving watershed protection functions, and biodiversity preservation.



Tree planting activities

S (Social) Initiatives

- Through discussions with local communities, we will aim for “co-creation” that will bring about new value together to solve local issues and develop the economy.
- We are working on creating a working environment where our employees, the driving force of the HEPCO Group, can reach their full potential.

Support for SDGs education

- We support SDGs education for elementary school students who will be responsible for Hokkaido's future.
- HEPCO Group employees who have taken the training of TREE INC. and have been certified as facilitators are helping run SDG lessons at elementary schools.



Participation in the Hokkaido Space Port (HOSPO) initiative

- We are participating in the HOSPO Initiative promoted by Taiki Town through investment and other means. The HOSPO Initiative aims to gather a wide range of industries related to rocket launch sites, including manufacturing, R&D, and tourism.



Illustration of the HOSPO Initiative

Utilization of the smart meter communication network

- As part of our initiatives to solve local issues, through cooperation with water and kerosene suppliers, we are using the communication network of electric power smart meters to conduct demonstrations regarding the acquisition of indicator values and alarm signals of measuring instruments and monitoring the remaining amount of kerosene.

Promotion of health management

- We actively promote investment in human capital, and we are developing health policies that enable us to share motivation for life and work with employees and their families.
- Using the expertise we have gained through health policies that contribute to improving the condition of employee health, we are supporting customer organizations working on health management from the perspective of vitalizing local economies and regions.



※ A designation awarded to companies listed on the Tokyo Stock Exchange. HEPCO was the first company headquartered in Hokkaido to be selected.

Diversity promotion

- We strive to ensure diversity of personnel, and we are working on the appointment of women and mid-career hires to core personnel positions.

Item	Current status	Objective
Ratio of women in management positions	Approx. 2%	Over 3% (by the end of March 2023)
Ratio of mid-career hires in management positions	Doubled in the last three years	No target value

※ Regarding the appointment of non-Japanese employees to core personnel positions, we have not set any policies or target figures. This is because we are a company mainly focused on developing business within Japan that has only a few non-Japanese employees. However, we will consider setting target values and policies as necessary in the future.

※ The figures in the table are for HEPCO and Hokkaido Electric Power Network.

G (Governance) Initiatives

- We are working to further enhance corporate governance to support transparent, fair, and rapid decision-making.

Basic policy regarding corporate governance

- ▶ We have developed our basic policy from the below perspectives.

Appropriate cooperation with shareholders

Adequate securing of shareholders' rights

Building relationships of trust through continued dialog

Appropriate cooperation with non-shareholder stakeholders

Cooperation with employees, customers, business partners, and local companies

Appropriate information disclosure and ensuring transparency

Appropriate and timely disclosure of financial and non-financial information

Responsibilities of the Board of Directors, etc.

Rapid response to changes in the operating environment, securing transparency of management

Thorough implementation of information security measures

- ▶ The HEPCO Group is implementing security control measures at all of its group companies based on the HEPCO Group Information Security Policy.
- ▶ We have implemented training that assumes a cyber-attack and are working on improving the level of our response.



Cybersecurity training

Transition to a company with a supervisory committee

- ▶ Considering the appropriate response to the environment surrounding the HEPCO Group, we will promote the transition to a company with a supervisory committee that has advantages such as greater agility in business execution and improved transparency in management processes.

Note: We are planning to submit the above as an agenda item at the FY2023 general meetings of shareholders.

Disclosure of ESG information















- ▶ We publish information relating to ESG based on the information disclosure standards considered important globally.



*TCFD: Task Force on Climate-Related Financial Disclosures
SASB: United States Sustainability Accounting Standards Board
CDP: An environmental NGO headquartered in the UK

List of Group Companies

(As of April 2022)

	Hokkaido Electric Power Network Co., Ltd.	General power transmission and distribution business, power generation business on remote islands
	Hokkai Electrical Construction Co., Inc.	Electrical and telecommunications works
	HOKUDEN KOGYO Co., Ltd.	Real estate development and management, civil engineering and construction, advertising, auto lease
	HOKUDEN SOGO SEKKEI Corporation	Comprehensive construction consulting services in the fields of civil engineering, construction, electricity, and environment
	Hokkaido Power Engineering Co., Inc.	Sale of electric power and periodic inspection, maintenance, and repair of power stations
	The Tomatoh Coal Center Co., Inc.	Receipt, storage, and delivery of overseas coal
	HOKUDEN ECO-ENERGY Co., Ltd.	Sale of electric power
	Hokuden Service Co., Inc.	Electricity meter reading, billing, energy-saving proposals
	Hokkaido Telecommunication Network Co., Inc.	Provision of dedicated telecommunication lines and internet services
	Hokuden Information Technology, Inc.	Development of information systems, provision of IT services, data center business operation
	HOKUDEN ASSOCIA Co., Inc.	Design, printing and bookbinding, and sales of novelty and gift products
	ISHIKARI LNG SAMBASHI	Leasing of LNG receiving facilities
	Hokkaido Electric Power Co-Creation	Electricity retail business
	Hokkaido Records Management, Inc.	Document management and consulting



These materials were created based on data correct as of April 28, 2022.

Also, these are not disclosure materials under the Financial Instruments and Exchange Act, and the accuracy or completeness of the information provided in the materials is not guaranteed.

Although these materials contain statements about future performance, such statements do not constitute warranties of future performance and include risks and uncertainties.

Please note that future performance may change due to various changes in the conditions of the operating environment.