Hokkaido Electric Power Co., Inc. | Overview

Hokkaido Electric Power Co., Inc. Transition Link Loan

■ Corporate Profile

Industry	Electricity/Gas
Location	Japan
Business	Founded in 1951. Annual power supply is approximately 33 billion kWh (FY2021, Including power received from other companies). As the HEPCO Group, develops local businesses based in Hokkaido.

■ Loan Outline

Borrower	Hokkaido Electric Power Co., Inc.
Structuring Agent	Mizuho Securities Co. Ltd.
Financier	Development Bank of Japan Inc. MUFJ Bank, Ltd.
Evaluation Agency	DNV BUSINESS ASSURANCE JAPAN K.K.
Amount Borrowed	NA
Contract Date	March 2023

Alignment with the Four Basic Guideline Elements*

Element 1

- Transition Strategy: HEPCO Group announced its "Aim for Carbon Neutrality by 2050" in April 2021, identifying the supply side, demand side, and network as the pillars to achieve its goal.
- Governance: Discussions and decision-making, including on climate change measures, are conducted by the Executive Committee, composed of executive officers and others. The company also established an Environmental Committee chaired by the president.

Element 2

- The company identified its commitment to “carbon neutral 2050” as an environmental materiality.

Element 3

- Hokkaido Electric Power's strategy is consistent with METI's roadmap.
- SPTs are consistent with Hokkaido Electric Power's targets for FY2030, which are more ambitious than those in the 6th Strategic Energy Plan of METI.

Element 4

- The company pledged to invest a total of more than 50 billion yen by FY2030 in priority new businesses, including those in the decarbonization sector, which expects future growth.

Candidates for Uses of Proceeds

Eligibility Criteria	Project Overview
Renewable energy	• Development, construction, operation, and upgrade of hydro, solar, geothermal, wind, and biomass power
Nuclear	• Restarting nuclear power plants, improving and maintaining safety
Hydrogen	• Building supply chains for hydrogen production and utilization
Thermal	• Abolition of inefficient thermal power plants, construction of high-efficiency thermal power plants • Utilization of hydrogen, ammonia and biomass • R&D, demonstration, and implementation for utilization of CCUS
Promotion of electrification and energy saving	• Various investments to promote electrification and energy saving
Electricity transmission and distribution	• Upgrading and strengthening power transmission and distribution networks (including inter-regional interconnection lines) and making supply and demand operations more advanced to increase the introduction of renewable energy

KPI/SPTs

KPI/SPT :
2030 (compared to FY2013) Power generation sector emissions: -50%

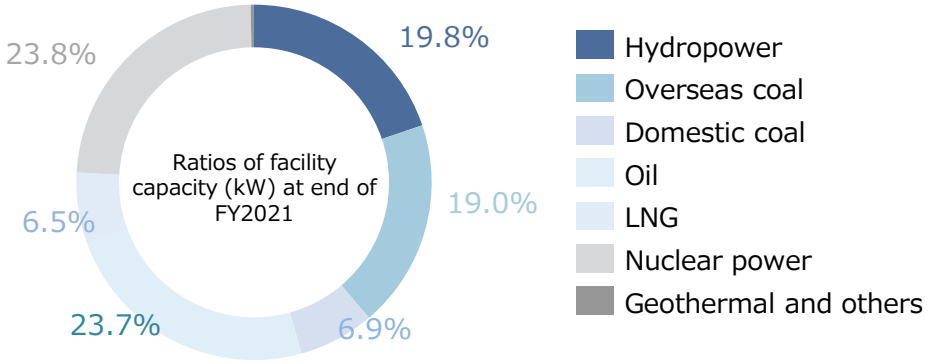
> The 6th Strategic Energy Plan 46% reduction in FY2030

Hokkaido Electric Power Co., Inc. | Overview

Transition Strategy and Governance (Element 1)

Transition Strategy

- Considering Hokkaido's regional characteristics, the project will support **supply side** efforts, including increasing the introduction of renewable energy
- It will also work on **network** construction and **demand side** electrification.



Up to 2030 → Toward 2050

Supply side
- Expansion of renewable energy
- Early restart of nuclear power
- Small-scale production of hydrogen
- Decommissioning of aging thermal power plants
- Participation in CCUS demonstrations and acquisition of knowledge

Demand side
- Electrification of homes, businesses, and transportation sector, promotion of energy saving, utilization of hydrogen, etc.

Network
- Increased renewable energy connections
- Advancement of supply and demand operations
- Shinshin Kitahon Unkai (off-path supply of renewable energy)

Further promotion of decarbonization efforts and full-scale introduction of technology

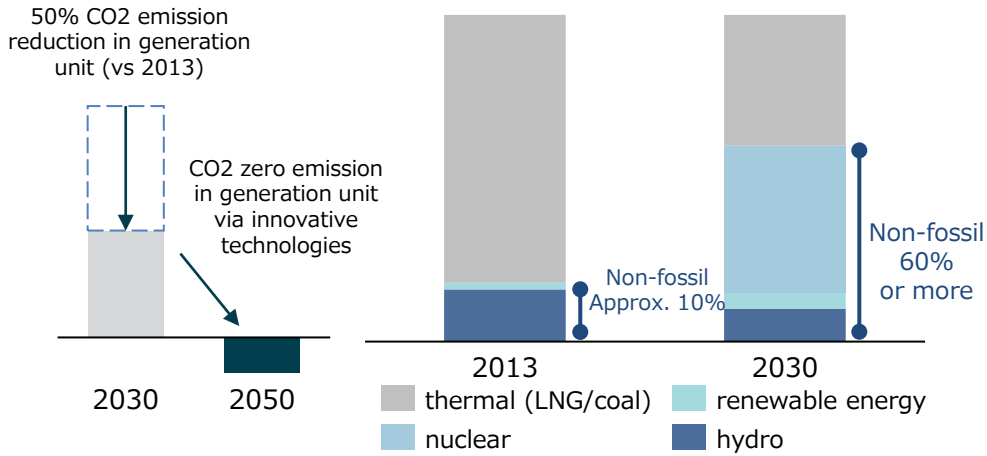
Targets

*following figures are illustrative

CO2 emission -50% Or more

Non fossil based generation 60% Or more

RE Facility +300,000kW Or more



Key Points

- Established three pillars of "supply side," "demand side," and "network" for decarbonization including efforts related to targets for renewable energy expansion and the ratio of non-fossil power sources.
- Supply side/thermal power includes the decommissioning of inefficient thermal power plants, with consideration to just transition, such as considering impacts on regions of power plant locations.
- In parallel with the restart of Tomari Nuclear Power Station, the aim is to **change the power mix** based on the power source development plan by **expanding renewable energy and making thermal power generation more adjustable**.

Hokkaido Electric Power Co., Inc. | Overview

Transition Strategy and Governance (Element 1)

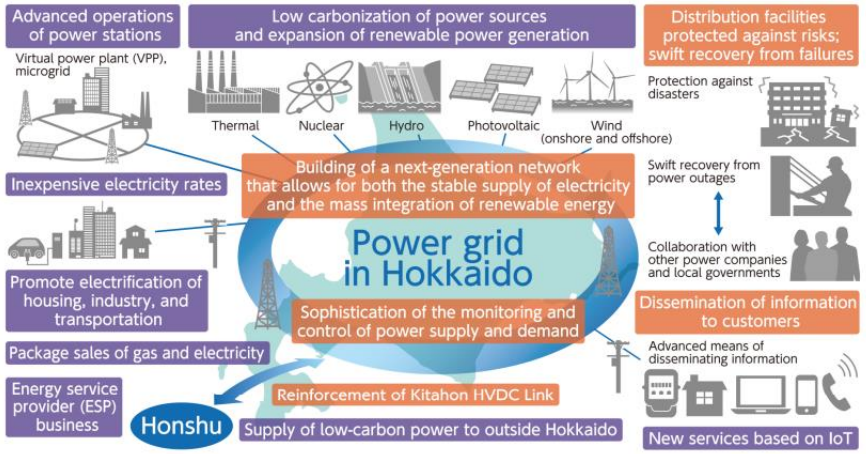
Transition Strategy

- Aims sustainable business growth with Tomari Nuclear Power Station restart in the 1st and2nd phase of HEPCO Group Management Vision 2030.
- **Develop an electricity business that improves the stability of supply and resilience, as well as environmental friendliness and convenience, through both the retail and power generation divisions and the network.**

HEPCO Group Management Vision 2030

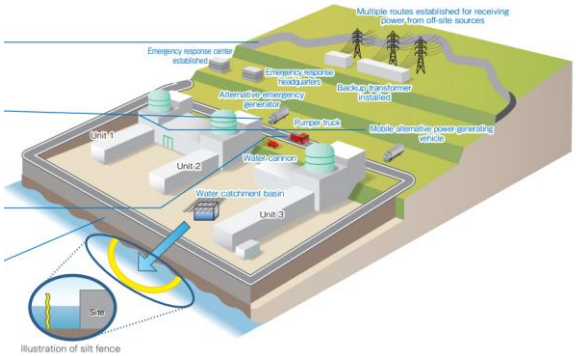
	Phase I (before the restart of Tomari NPS)	Phase II (after all units of Tomari NPS are back in operation)
Power source mix	Use thermal power as a main power source	Use thermal power mainly for adjustment
	Reinforce safety of Tomari NPS prior to its restart	Restart Tomari NPS (Unit 3 → Units 1 and 2)
		Inexpensive electricity rates Supply low-carbon power within and outside Hokkaido
	Expand renewable power generation	
Expansion of retail sales; promotion of electrification	Implement the Retail Sales Strategy; promote total energy solutions	
	Promote electrification of housing, industry, and transportation; and increase power demand	
Expansion of the scope of business domains	Expand the scope of business domains to include city gas sales and other businesses	
Stable supply; efficiency improvement	Secure stable supply and enhance resilience while at the same time increasing efficiency and reducing costs	

Outline of Future Electricity business



Nuclear Power Station（Tomari/2,070,000kW）

- Restarting nuclear power plants is important from the perspectives of stable energy supply, economic efficiency, and environmental compatibility.
- In order to ensure safety for restarting nuclear power plants, the "Quality Policy for Nuclear Power Generation" and various measures have been implemented.



Phase out schedule for Thermal Power Stations

	Station	Feedstock	Capacity	#	Output	Since	Location
Expected for demolition	Sunagawa	Coal	250,000 kW	3rd 4th	12.5万kW 12.5万kW	1977.06 1982.05	Sunagawa-shi
	Naie	Coal	350,000kW	1st 2nd	17.5万kW 17.5万kW	1968.05 1970.02	Sorachi-gun Naie-cho
Expected for suspension	Date	Fuel oil	700,000 kW	1st 2nd	35万kW 35万kW	1978.11 1980.03	Date-shi

Hokkaido Electric Power Co., Inc. | Overview

Science-based Targets and Pathways (Element 3) and alignment with the SLLP

Alignment with the SLLP

Selection of KPI

- KPI is set in relation to environmental targets (materiality). It is set as the CO2 emission for power generation unit.

Calibration of SPTs

- Set SPTs are more ambitious than the science-based 6th Strategic Energy Plan's 46% reduction in FY2030 (59% non-fossil energy).

Loan Characteristic

- Financial characteristic : step up/down of interest or donation
- Structural characteristic : set for each finance (SPTs、dates)
- Fallback mechanisms : will not set other SPTs as risks of not being able to observe or calculate are small.

Reporting

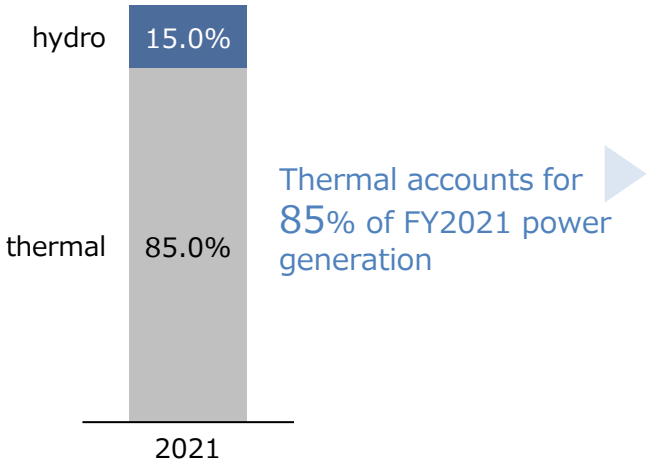
- Frequency and term : at least once a year, annually until the last trading date
- Disclosure : report of HEPCO group or website, borrowers for loans
- Contents : results of KPI/SPTs etc

Verification

- Frequency and term : at least once a year, annually until the last trading date
- Disclosure : report of HEPCO group or website, borrowers for loans
- Contents : KPI

KPI/SPTs

Power generation ratio



Thermal accounts for 85% of FY2021 power generation

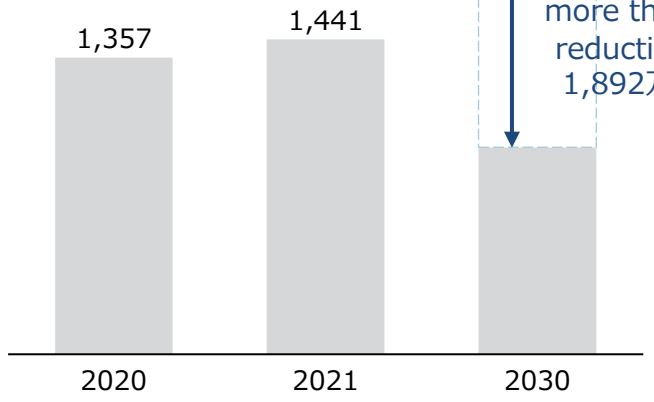
CO2 emission from generation unit

KPI

CO2 emission from HEPCO group's generation unit

SPT

FY2013 results more than 50% reduction from 1,892万t-CO2



The 6th Strategic Energy Plans

CO2 emission	-46% (vs FY2013)
Non-fossil based ratio	59%

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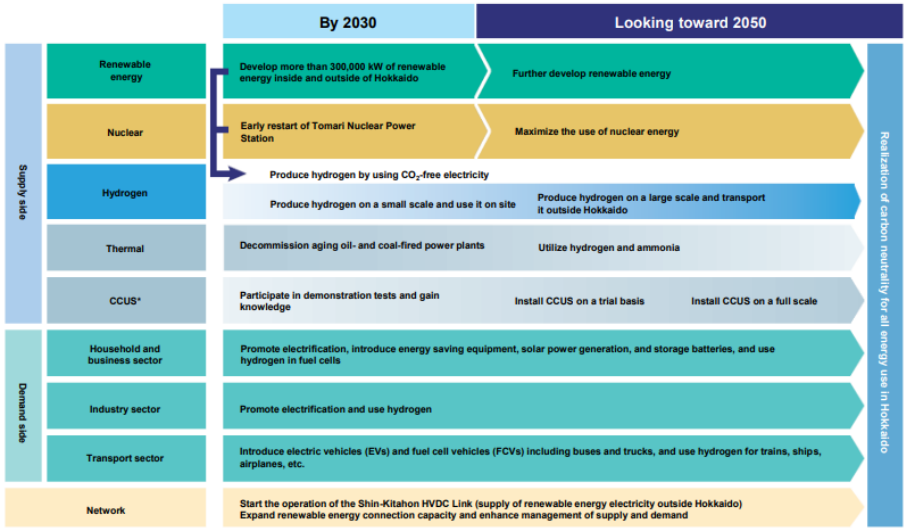
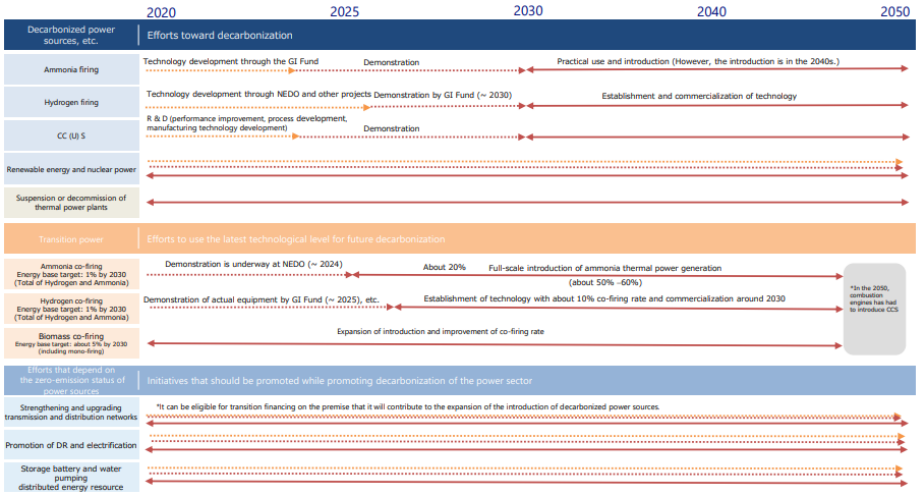
Science-based Targets and Pathways (Element 3)

Hokkaido Electric Power Carbon Neutral 2050 Roadmap



*CCUS (Carbon Capture, Utilization and Storage): Technology to separate and capture CO_2 for reuse or underground storage, etc.

Power Sector Transition Roadmap from Agency for Natural Resources and Energy, METI



Initiatives aligned with the roadmap

- Initiatives related to **decarbonized power sources (renewable energy, nuclear power)**
- Initiatives related to actions that should be taken while promoting decarbonization f the power supply sector (battery, DER, water)
- Initiatives related to **decarbonized power sources, etc. (suspension and decommissioning of thermal power supplies, CCUS)**
- Initiatives related to actions that should be taken while promoting decarbonization f the power supply sector (DER, electrification, transmission)

Key Points

- Initiatives toward 2030 are consistent with METI's roadmap.

Committee | Results

Hokkaido Electric Power Co., Inc. : Transition Finance

RESULTS:
Approved for Climate Innovation Finance Promotion Grants Scheme

Main Opinions

Transition Strategy

- A stable supply of electricity is an extremely important consideration, it is hoped that the transition will proceed while paying attention to the power balance by promoting the construction of new power plants as well as the decommissioning of inefficient power plants.
- The company's commitment to renewable energy as well as nuclear power, and its contribution to carbon neutrality, is commendable.

Other factors/ Others

- Although targets (SPTs) for restarting nuclear power plants are difficult to set due to it highly dependent nature on the external environment, milestones are set and disclosures to confirm the progress of projects are expected.

This document focuses on the contribution of transition finance to the realization of Japan's carbon neutrality by 2050 and the Paris Agreement and does not include any assessment of the risks associated with transition finance as a financial instrument. It should be noted that even the approved cases of this scheme, there are credit risks and other risks (in the case of bonds, price fluctuation risks, liquidity risks, etc.) as in ordinary financing.