Leading the Global Green Transition

Team Sapporo-Hokkaido

Team Sapporo-Hokkaido Green Finance Framework

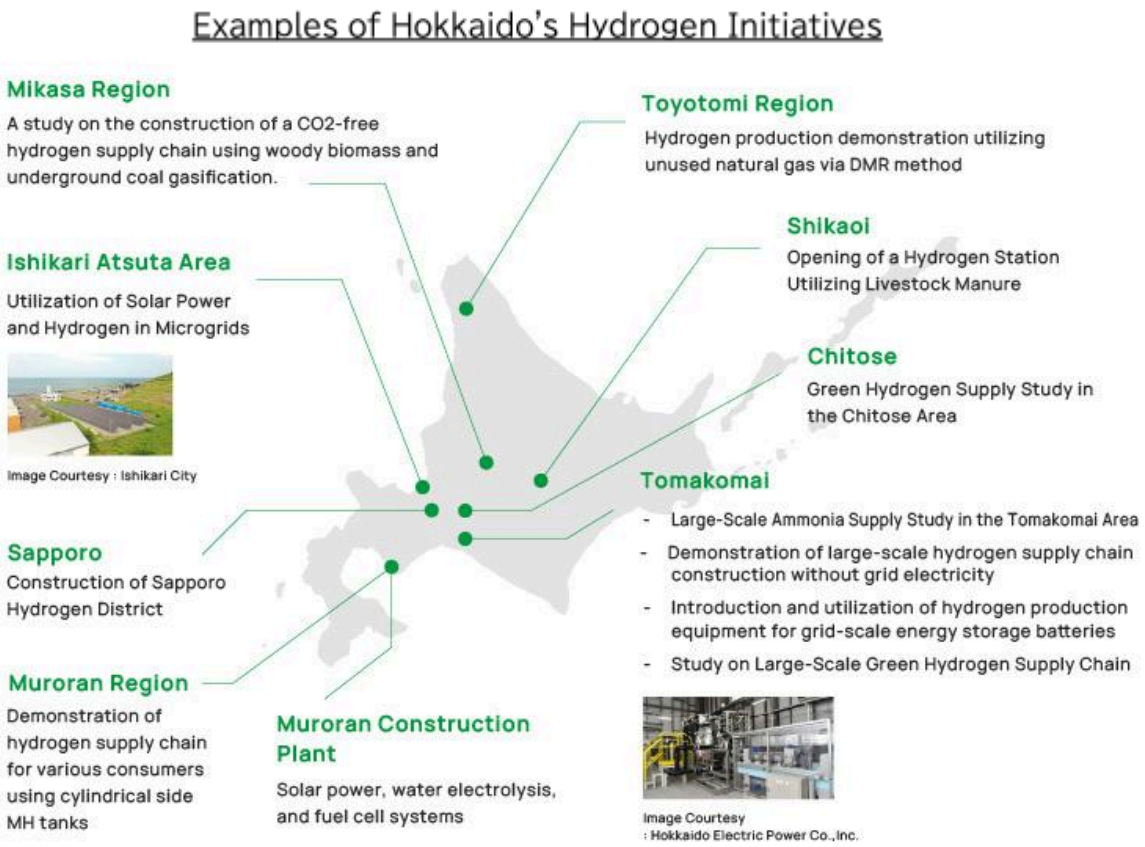
Sub-Framework (Hydrogen)

1. Hydrogen

Hydrogen does not emit CO_2 during use and can achieve high energy efficiency through the use of fuel cell technology. By utilizing these excellent characteristics, it is possible to increase the efficiency of renewable energy use and the utilization rate of unused resources, leading to further reductions in CO_2 emissions.

The creation of a hydrogen society will not only contribute to a decarbonized society, but also to the creation of safe and secure communities that are resilient to disasters through local production and consumption of energy, as well as the creation of hydrogen-related industries within Hokkaido.

Hokkaido is promoting the introduction of hydrogen derived from high-potential renewable energy sources and hydrogen utilization equipment to realize a hydrogen society unique to Hokkaido. It will build a supply chain based on local production and consumption of hydrogen energy, from manufacturing to utilization.



2. Green Criteria

Evaluation Label	Criteria	Key Reference Standards
Green Premium	0kg-CO_2/kg-H_2 (Life cycle CO_2 emissions)	Climate Bonds Standard (CBS) EU Taxonomy
Green	<3.0kg-CO_2/kg-H_2 (Life cycle CO_2 emissions) *Criteria until 2030	
Transition	<3.4kg-CO_2/kg-H_2 (well-to-gate[1] CO_2 emissions)	Basic Hydrogen Strategy
Not applicable	Projects that do not meet any of the above Green/Transition criteria. Or projects that meet the criteria but do not meet DNSH	

For details on each criterion, please see below.

■CBS: Hydrogen Criteria
https://www.climatebonds.net/our-expertise/climate-bonds-standard-and-certification-scheme/sector-criteria/hydrogen

■EU Taxonomy: Manufacture of Hydrogen
https://ec.europa.eu/sustainable-finance-taxonomy/activities/activity/275/view

■Basic Hydrogen Strategy (June 6, 2023, Ministerial Meeting on Renewable Hydrogen)
https://www.meti.go.jp/shingikai/enecho/shoene_shinene/suiso_seisaku/pdf/20230606_5.pdf

[1] Refers to the scope from raw material extraction to factory shipment within the life cycle of products and energy.

3. Reporting

Business operators are required to submit annual reports.

【Annual Report Template】

Business Operator Name		Department Person in Charge: Name Contact: Listed
Target Project	Category	☐ Offshore Wind Power Generation ☐ Hydrogen ☐ Data Centers ☐ Battery Storage ☐ Next-Generation Semiconductors ☐ Synthetic Fuels (e.g., SAF) ☐ Subsea DC Transmission ☐ Electric and Hydrogen Carriers ☐ Other (specify)
	Project Name	Specify
	Basic Information	Details (Location, Scale, Specifications, Start of Operation)
	Reporting Period	YYYY MM - YYYY MM (Number of Months)
	Green Evaluation Label	☐ Green Premium ☐ Green ☐ Transition
Funding Status	Funding Date	Year Month Date
	Funding Amount	Amount in millions JPY
	Allocation Category	☐ New Investment (Including expenditures from cash on hand within the past three years) ☐ Refinancing
	Allocation Status	☐Fully allocated ☐ In progress (Amount already allocated: ¥XX million JPY Unallocated Amount: [Amount in millions JPY] Expected Allocation Completion Date: [Year] [Month] ※If there are multiple projects, list them individually
Environmental Benefits	Item	GHG/CO_2 Reduction ☐ Other (specify)
	Quantity (Unit)	Description (t-CO_2 / year)
	Attribution	☐Business Operator (Specify) ☐User (Specify) ☐Other (Specify)
	Actual/Plan	☐Actual ☐Planned
	Calculation Method	**A = B × (C - D) × E** A: CO_2 Reduction Amount, B: CO_2 Emission Factor, C: Baseline Factor D: Project Coefficient,

		E: Equipment Utilization Rate/Period *If there are prerequisites, describe them in the reference information below
	Reference Information	☐Ministry of the Environment materials ☐Ministry of Economy, Trade and Industry materials (List materials referenced for the above calculation) ☐Other (specify)
Region Sustainability	Target Individuals/Target Area	Specify (e.g., XX Town)
	Item	☐Environmental Impact Assessment ☐Fostering Local Understanding ☐Solving local issues and Promotion regional development ☐Participation in Community Activities ☐Number of Employees ☐Procurement Ratio ☐Value Added Creation Amount
	Actual/Planned	☐Actual Results ☐Plans
	Plan Progress Status	Description
	Quantitative Data	Description (Person, Case, JPY) Other (Specify)
	Calculation Method	Listed by item (e.g., data comparable to the previous fiscal year)
	Other Reference materials, etc. Remarks	

4. Do No Significant Harm Criteria (DNSH)

※1 Quoted from the EU Taxonomy
※2 Quoted from the Climate Bonds Standard (CBS)

4.1 Climate Change Adaptation

- The activity complies with the criteria set out in Appendix-A (Attachment) (※1)

4.2 Water

- The activity complies with the criteria set out in Appendix-B (Attachment) (※1)

4.3 Circular Economy

- Not applicable

4.4 Pollution Prevention

- The activity complies with the criteria set out in Appendix-C (Attachment) (※1)
- Emissions are within or lower than the emission levels associated with the best available techniques (BAT-AEL) ranges set out in the relevant best available techniques (BAT) conclusions, including:
  a. BAT conclusions for the production of chlor-alkali and BAT conclusions for common waste water and waste gas treatment/management systems in the chemical sector.
  b. BAT conclusions for the refining of mineral oil and gas. (※1)
- No significant cross-media effects occur. (※1)

4.5 Biodiversity

- The activity complies with the criteria set out in Appendix-D (Attachment) (※1)

4.6 Operation and maintenance plan for achieving long-term, stable environmental improvement effects and consideration for the surrounding environment

- Not applicable