# lwatani



Iwatani Corporation's Sustainability Bond Framework

NOVEMBER 2023

#### 1. Introduction

Iwatani Corporation ("Iwatani" hereinafter) has formulated a Sustainability Bond Framework ("Framework" hereinafter), within which the company will initiate fundraising efforts. The proceeds will fund projects designed to improve the environment and address social challenges as part of our commitment to help create a more comfortable space on the Earth.

#### 1.1 Company Overview

Since our founding in 1930, Iwatani has provided a wide range of products and services for industrial applications and daily life, including energy, industrial gases, materials, and food products, based on our corporate philosophy: Become a person needed by society, as those needed by society can prosper. These efforts are grounded in our desire to contribute to society by creating new value society will need in the future. This is the major impetus behind the progress of our businesses.

This philosophy, handed down over the years, represents the foundations of all that we do. Today, our core business of LPG, which spurred a revolution in household fuel and reduced burdens associated with household tasks, provides a reliable and widely used clean energy source for daily life, for commercial activity, and for emergencies. Industrial gases, another core business, are essential to the manufacture of nearly all of the products around us. They play a key role in the industrial infrastructure and in supporting industrial progress. Iwatani is a market pioneer in hydrogen, which, in addition to its industrial applications, is on the verge of becoming a major factor in realizing a sustainable society as the ultimate zero-carbon energy source.

While today's society faces numerous challenges in areas ranging from the environment and global warming to energy, we will continue striving to establish a sustainable, resource-circulating, carbon-free society by ceaselessly creating and supplying what society needs.

#### 1.2 Principles and Guidelines Used to Formulate the Framework

The Framework incorporates the key recommendations set forth in the following principles and guidelines:

- Climate Transition Finance Handbook 2023, issued by the International Capital Market Association (ICMA)
- Basic Guidelines on Climate Transition Finance 2021, issued by the Financial Services Agency, the Ministry of Economy, Trade and Industry, and the Ministry of the

## Environment

- · Green Bond Principles 2021, issued by ICMA
- Social Bond Principles 2023, issued by ICMA
- Sustainability Bond Guidelines 2021, issued by ICMA
- Green Bond Guidelines 2022, issued by Japan's Ministry of the Environment
- Social Bond Guidelines 2021, issued by the Financial Services Agency

The following table lists the four key recommended disclosure elements set forth in ICMA's Climate Transition Finance Handbook (CTFH), as well as the sections in the Framework corresponding to each of these elements:

Four key elements of the CTFH	Corresponding sections in the Framework
Issuer's climate transition strategy and governance	2.1 Targets Related to Climate Change 2.3 Governance Structure
Business model environmental materiality	Creation of a More     Comfortable Space on the     Earth
Science-based climate transition strategy (including targets and pathways)	2.1 Targets Related to Climate Change
Implementation transparency	2.2. Efforts to Help Create a  More Comfortable Space on the Earth

#### 2. Creation of a More Comfortable Space on the Earth

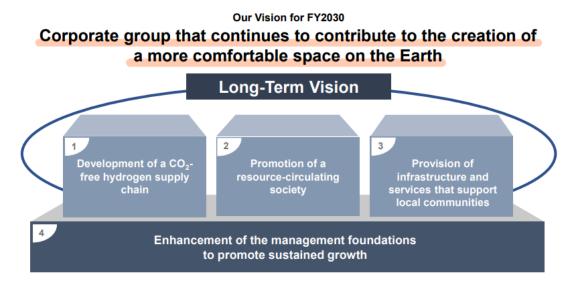
In light of the pressing need to address climate change, we believe decarbonization will be essential to sustained long-term growth. Accordingly, we are working to reduce CO2 emissions throughout society through our business activities while decarbonizing our own business activities.

Our long-term vision is to establish a carbon-free society through various groupwide initiatives centered on the LPG and hydrogen businesses. We believe our capacity to deploy businesses related to decarbonization across the organization is among our key strengths.

Underlying these efforts is a long history of contributing solutions to environmental and social issues, an approach embodied in the words *Those* needed by society can prosper, as well as in the corporate slogan adopted in 1970: Creation of a more comfortable space on the Earth is what Iwatani wishes and strives for.

For example, LPG is a clean energy source with a lower environmental impact than sources like petroleum and coal. We have worked to promote and expand the use of LPG since 1953. Our founder identified hydrogen as the ultimate clean energy source, and we have been developing the hydrogen business since 1941, working toward our dream of realizing a hydrogen energy-based society.

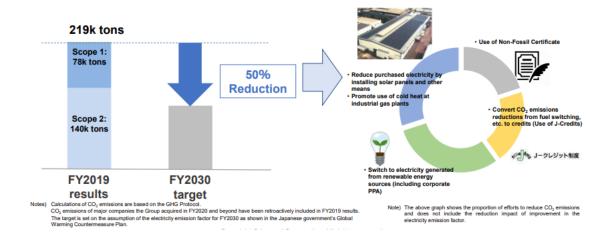
These initiatives, which were underway long before concepts such as decarbonization and the SDGs became mainstream, are part of our corporate DNA. This heritage is the driving force behind our efforts to create new value.



# 2.1 Targets Related to Climate Change

#### Scope 1 + 2 CO2 Emission Reduction Target

The Iwatani Group has announced its goal of achieving carbon neutrality by FY2050, targeting as a FY2030 milestone a reduction of 50% in CO2 emissions (Scopes 1 and 2) by the Iwatani Group in Japan compared to the FY2019 level. Through now, the Iwatani Group has installed solar panels and LED lighting, among other energy-saving devices, at its offices, R&D centers, gas centers, and other sites. In addition to these initiatives, other efforts underway include use of cold heat from cooling LNG at industrial gas plants and adoption of electricity from renewables at gas centers and other facilities. We aim to achieve the FY2030 CO2 reduction target through these efforts and by streamlining LPG delivery and converting CO2 reductions achieved through measures such as fuel conversion on the customer side to credits.

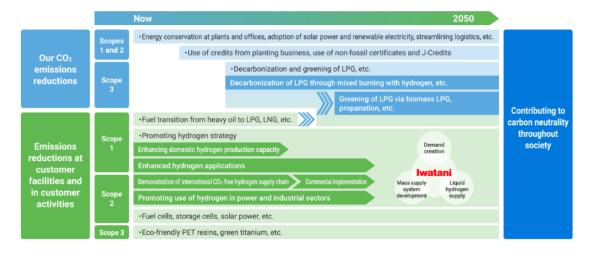


#### **Emissions reduction endeavors (including Scope 3)**

The Iwatani Group considers specific measures to be taken in our business segments (Energy, Industrial Gases & Machinery, and Materials) to promote sustainable growth and address social issues.

Segment	Specific measures
Integrated Energy	Strive to produce and supply green LPG
	Generate J-Credits from customer-side CO2 reductions
	Generate value out of CO2 reductions attained through the
	use of high-efficiency gas-fired water heaters by households
	and other energy consumers
	Demonstrate the feasibility of mixed hydrogen/LPG pipeline
	supply
Industrial Gases &	Efforts are underway to establish a CO2-free hydrogen supply

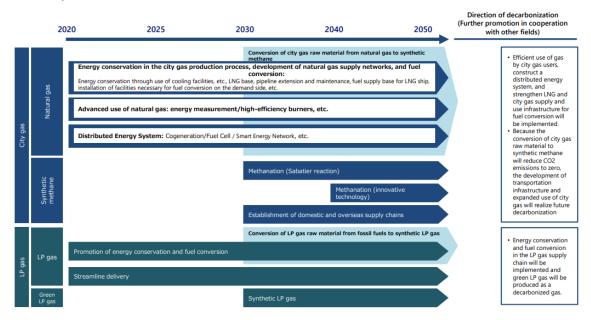
Machinery	chain in partnership with relevant government agencies and		
	numerous private sector organizations, to further the goal of		
	realizing a hydrogen energy-based society.		
	Promote joint development with partner companies to build		
	systems capable of supplying large volumes of hydrogen,		
	and forge collaborative relationships with them for hydrogen		
	refueling stations and other businesses		
	Develop and promote the sales of hydrogen burners and		
	hydrogen cutting machines		
Materials	Enhanced sourcing and new development of rechargeable		
	battery materials		
	Expansion of processing plant for metal (wire) materials used		
	in air conditioners		
	Promoting sales of eco-friendly PET resins		
	Study on the plastic chemical recycling business (R Plus		
	Japan)		
	Securing rights to high-purity titanium ores mined using		
	renewable hydroelectric energy		



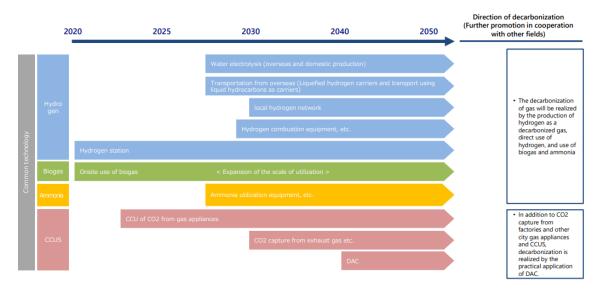
Iwatani's emission reduction targets and transition strategy include the long-term objective of achieving carbon neutrality by 2050, as well as an interim target of reducing emissions by 50% versus the FY2019 level by FY2030. The company's LPG and hydrogen businesses will play a key role in realizing these goals, which are aligned with the roadmap that the Ministry of Economy, Trade and Industry issued for this sector (shown below). When it formulated this roadmap, the ministry referenced Japan's domestic policies, such as the Strategic Energy Plan and Nationally Determined Contribution, as well as the

various scenarios expected to play out internationally. We believe this gives solid scientific foundations to our transition plan, which is in line with the roadmap.

# Technology Pathways to Decarbonization | 2-1 Technology Roadmap (City Gas and LP Gas)



# Technology Pathways to Decarbonization | 2-2 Technology Roadmap (Common Technologies)

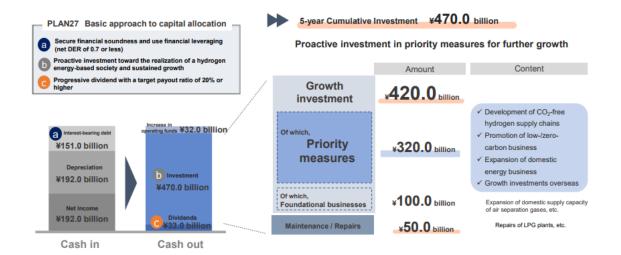


Source: Technology Roadmap for Transition Finance in the Gas Sector, issued by METI in February 2022

The government's Basic Hydrogen Strategy, revised for the first time in six years in June 2023, sets forth the general direction for accelerating the development of a hydrogen-based society and emphasizes the need to establish a reliable and affordable supply of lowcarbon hydrogen. The strategy targets the implementation of 3 m tons of annual hydrogen use (including ammonia) by 2030, around 12 m tons by 2040, and around 20 m tons by 2050. In terms of cost (in CIF terms), the goal is to bring hydrogen costs down to the same level as recent-year fossil fuel prices by 2030, with efforts made to drive technological advances and other developments so that this target can be met. Ideally, bringing all of the various policies to bear will increase hydrogen/ammonia demand, encourage private investment, and generate new technological innovations, leading to further reductions in supply costs that make these energy sources internationally competitive. The strategy anticipates that these developments will facilitate the implementation of low-carbon hydrogen and further society's transition to carbon neutrality. But for all this to happen, the country will need to address supply/demand issues, develop a systematic framework, partner with municipal governments, promote innovation, and work with the international community to build a hydrogen supply chain. The amount of public- and private sector investments devoted to this endeavor is expected to exceed ¥15 trillion over the next 15 years. Iwatani's hydrogen strategy, set forth in PLAN27, our medium-term management plan, is expected to play a contributing role in advancing the country's Basic Hydrogen Strategy. We anticipate that large volumes of liquid hydrogen will become commercially available and plan on investing in the supply chain, which should help make costs more affordable.

#### 2.2 Efforts to Help Create a More Comfortable Space on the Earth

PLAN27, Iwatani's five-year medium-term management plan, which covers fiscal years 2023 through 2027, sets forth an aggressive investment strategy in which we will spend ¥470 bn over five years to help popularize hydrogen use and achieve sustained growth. Of this ¥470 bn total, ¥320 bn will be used to advance our four priority measures (such as our carbon-free strategy), ¥10 bn will go toward growing our core businesses, including upgrades to our ability to supply air separation gases to the domestic market, and ¥50 bn will be spent on renovations to our LP gas plants and other maintenance projects.



(¥100 m)

	Measures	Amount	Main contents
	Hydrogen Strategies	178.0	Develop CO <sub>2</sub> -free hydrogen supply chains both in Japan and overseas
Priority Measures	Carbon-free Strategies	15.0	Develop eco-friendly products supply chains (Gases, raw materials, etc.)
Priority A	Domestic Energy & Service Strategies	33.0	Retail businesses M&As / Acquire customers
	Overseas Strategies	94.0	New plants for portable gas cooking stoves and cassette gas canisters Strengthen production and supply capabilities of industrial gases Stable supply of resources
Gr	Foundational Businesses rowth Investment	100.0	Expand domestic supply capabilities for air separation gases, etc.
Mai	intenance/Repairs	50.0	Repair LPG plant, etc.

## (1) Hydrogen strategy

Since 1941, when we identified hydrogen as the ultimate clean energy source, we have pushed for progress toward the widespread use of hydrogen energy. Under the corporate slogan adopted in 1970 on the 40th anniversary of our founding—Creation of a more comfortable space on the Earth is what Iwatani wishes and strives for—we have worked to deliver solutions that address the social challenges posed by environmental issues.

As a co-representative of the Japan Hydrogen Association established in December 2020 and as a key member of the Hydrogen Council established chiefly by global energy firms, we are acting to promote the use of hydrogen around the world with the aim of moving toward a hydrogen energy-based society.

To stimulate new hydrogen demand, we are developing hydrogen-refueling stations in Japan and in the United States in response to the spread of fuel cell vehicles (FCVs). We will focus on developing hydrogen refueling stations for fuel cell commercial vehicles,

including trucks and buses, as well as reducing operating costs by establishing self-service stations.

As corporations increasingly take on the challenge of decarbonization, we expect demand to grow for hydrogen and related facilities. We will capture new demand for hydrogen by meeting the decarbonization needs of our customers in various ways, including decarbonizing factories and supplying fuel for feasibility testing involving large-scale mobility solutions based on hydrogen use in trains, ships, and other transportation modes. Our efforts to secure CO2-free hydrogen sources include studying the commercialization of green liquid hydrogen production alongside our partners, including a power utility and a mining company in Australia. In particular, the Liquefied Hydrogen Supply Chain Commercialization Feasibility Study Project in which we participate has been selected by the New Energy and Industrial Technology Development Organization (NEDO) for funding from the Green Innovation Fund. This project will include feasibility studies on developing global liquid hydrogen supply chains integrating hydrogen production, liquefaction, shipping, marine transport, and receipt to establish the world's first large-scale hydrogen liquefaction and transport technologies capable of handling capacities on the order of tens of thousands of tons per year.

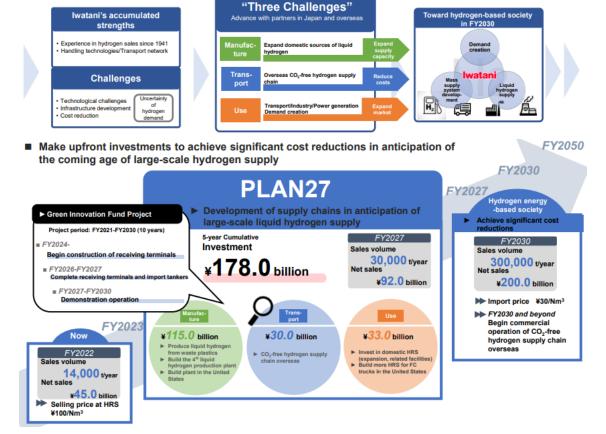
In Japan, we are participating in the Fukushima Plan for a New Energy Society, a project intended to produce green hydrogen using electric power generated from renewable energy sources. We are also studying a broad range of practical projects, including hydrogen production from plastic waste.

Iwatani's strength lies in our capacity to assume every function throughout the supply chain in-house, from R&D in liquid hydrogen to production, transport, storage, supply, and use. We have spent many years developing our expertise in the handling of hydrogen and liquid hydrogen, which we believe will be a contributing force in developing infrastructure to prepare for the coming of a hydrogen energy-based future.

Throughout the five-year period from 2023 to 2027, Iwatani will invest a total of ¥178 bn in initiatives designed to strengthen our hydrogen business, such as the expansion our liquid hydrogen operations and the building of a CO2-free hydrogen supply chain.

1. Expand liquid hydrogen business that captures growing carbon-free-related demand
2. Develop CO<sub>2</sub>-free hydrogen supply chains

PLAN27

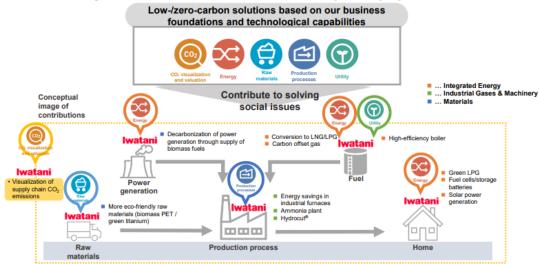


#### (2) Carbon-free strategies

Iwatani's policy is to find solutions to social issues. Our mission is to establish a carbon-free society. The movement toward carbon neutrality is a pressing issue for the LPG business, a member of an industry that handles fossil fuels. As an industry leader, in addition to identifying courses of action toward solutions, we respond to customer carbon decarbonization needs by providing wide-ranging decarbonization support, including optimal energy conservation solutions, fuel transition to lower-CO2 LPG and LNG, and proposals for the adoption of solar power and other renewables. We have also begun using the J-Credits scheme to leverage LPG to support decarbonization activities among our customers. Over the medium to long term, we are seeking to decarbonize LPG itself. Related initiatives include R&D on producing green LPG using hydrogen and biomass, and viability testing of supplying mixed LPG and hydrogen to households via pipelines. We also supply eco-friendly raw materials by importing biomass PET resins that include plant-

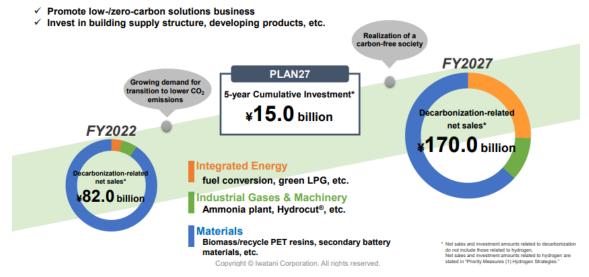
derived materials and selling them on to our customers. Furthermore, we have invested in Norwegian natural resources firm Nordic Mining and acquired rights to the high-purity titanium ores that will be harvested from a new mining site. The project will be powered by renewable energy sources and is expected to generate zero CO2 emissions during mining.

■ Provide a wide range of low-/zero-carbon solutions, from industry to everyday life



A total of ¥15 bn will be invested in carbon-free strategy initiatives throughout the five-year period from 2023 to 2027.

Business expansion through helping customers decarbonize their business activities

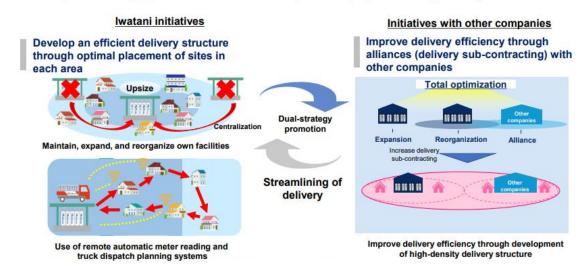


# Domestic Energy & Service Strategies

As the trend in Japan toward an increasingly elderly and smaller aging population persists, a shortage of successors has emerged as a pressing issue among LPG retailers in rural communities. To ensure the uninterrupted supply of LPG to customers, we are taking over retail distribution functions, thereby maintaining the regional LPG supply. In light of the

large numbers of small-scale retailers, the need to improve efficiency has been a longstanding issue for the LPG industry. We plan to fully leverage the network built up over many years to streamline and consolidate various aspects of the industry, including distribution and logistics. To support sustainability in the lives of our customers and to deliver new value to communities, we will continue to strengthen our retail business structure.

■ Develop efficient supply infrastructure and increase profitability by streamlining delivery structure



Drawing on the strength of our LPG networks to advance digitalization as a nationwide platform, we are pursuing structural reforms that will deliver comprehensive solutions to community issues. Based on Iwatani GateWay, in addition to streamlining logistics and other operations in LPG supply, we deliver a broad range of services to support everyday lives, including community safety and shopping services. By enhancing these services, we plan to strengthen customer satisfaction as we evolve into an energy and living total service provider that will be chosen by our communities.

#### 2.3 Governance Structure

Iwatani has established a Sustainability Management Department. This unit will be responsible for planning measures to promote sustainability and disseminate awareness of sustainability issues throughout the Group, including overseas. Iwatani has also established the Sustainability Promotion Committee under the Risk Management Committee, which coordinates groupwide risk management. The Sustainability Promotion Committee deliberates on matters such as risks, opportunities, action policies, and targets related to climate change and checks on the progress of related results.

As part of the oversight structure, the Board of Directors receives periodic reports and is briefed on important matters as they emerge to ensure appropriate supervision.

# 3. The Sustainability Bond Framework

The framework consists of the following four pillars, in accordance with Green Bond Principles 2021, Social Bond Principles 2023, and Sustainability Bond Guidelines 2021, all issued by the International Capital Market Association (ICMA), as well as the Japanese Environment Ministry's Green Bond Guidelines 2022 and the Financial Services Agency's Social Bond Guidelines 2021:

- 1. Use of proceeds
- 2. Process of project evaluation and selection
- 3. Management of proceeds
- 4. Reporting

#### 3.1 Use of proceeds

An amount equal to the total issue value of Iwatani's bonds will be used to finance or refinance new and existing eligible projects. Existing projects will be limited to those that were either executed or had their eligibility confirmed no more than three years before the bond issuance.

The projects may be funded through green bonds, green transition bonds, or sustainability bonds depending on how they are categorized.

- Green bonds: Proceeds may only be used on eligible projects that fall exclusively under Green Projects as per ICMA's category
- Green transition bonds: Proceeds may only be used on eligible projects that fall exclusively under Green Projects or Transition Projects as per ICMA's category
- Sustainability bonds: Proceeds may be used on eligible projects that fall under a) and b), or on multiple projects that include both a) and b)
  - a) Green or Transition Projects
  - b) Social Projects

#### <Eligible projects>

Project catego ry	Objective	ICMA project category		ı	Eligibility crite	ria	SDGs
Develo	Promote	Green: Eco-	•	Cost of	conducting b	usiness feasibility	7 TRATHERASE PORTER
pment	commerci	efficient		studies	on green hyd	Irogen production	<del>  %</del>
of a	alization of	products,		and	developing	manufacturing	

free hydrog en supply chain	global CO2-free hydrogen supply chain	renewable energy, and clean transportation Transition: Hydrogen	<ul> <li>Cost of constructing, installing, and operating various equipment required to maintain a hydrogen supply chain (including hydrogen production facilities, shipping facilities, transport equipment, receiving facilities, and tanks and other storage equipment)</li> </ul>	11
	Develop	Green: Clean transportation	<ul> <li>Cost of conducting R&amp;D and building hydrogen refueling stations for various transport equipment</li> <li>Cost of developing and producing hydrogen-powered fuel cell ships</li> </ul>	17 =====
	Develop and market Green: Eco- technologi es for the social implement ation of hydrogen  Green: Eco- efficient products  Green: Eco- efficient products and renewable energy Transition: Mixed gas	efficient	<ul> <li>Cost of conducting R&amp;D and feasibility studies on the use of hydrogen produced by wind power</li> <li>Cost of conducting R&amp;D and feasibility studies on the production of hydrogen from discarded plastics</li> </ul>	
		Cost of developing technologies, assessing impacts, and making capital investments to achieve the supply of mixed hydrogen and LPG via pipelines		
	Recruit and develop people who respond to change and	Green: Green buildings and eco-efficient products Transition: Hydrogen energy talent development	Construction costs and capital expenditures for a carbon-neutral training center for training a diverse range of personnel that will help further Iwatani's hydrogen energy business, while also functioning as an awareness-raising facility that promotes hydrogen-driven	

	continue to create value		decarbonization; costs of conducting training and operating said training center  ✓ An environmentally efficient building that will obtain one the following certifications  < CASBEE: B+ or higher  < ZEB certification (including Nearly ZEB, ZEB Ready, and ZEB Oriented)  < One of the top three grades in the green building certification schemes administered by various countries/territories (or a comparable level of environmental performance)  ✓ Implementation of eco-efficient energy sources (pure hydrogen fuel cells, solar power generation, etc.)  ✓ Implement programs for training a diverse range of personnel that will help further Iwatani's hydrogen business	
Promoti ng a resourc e- circulati ng society	Develop and expand low-/zero- carbon solutions	Green: Pollution prevention and control (resource circulation)	Capital expenditures and costs associated with the development, production, and sourcing of biomass PET resins with a plant-derived material content of 30%, and the necessary costs and investments for acquiring relevant technologies	7
Provisi on of infrastr	Maintain resilient LPG	Social: Affordable	<ul> <li>Building a system to reliably supply LPG</li> <li>✓ Capital expenditures for streamlining logistics</li> </ul>	7 inches

ucture and service s that	strengthen disaster	basic infrastructure Transition: LPG	✓ Cost of proofing the system against earthquakes, floods, and other natural disasters  Target population: Regions lacking city gas	9 ###### 10 ####################################
local commu nities	prevention measures		<ul> <li>Support BCP projects by proposing infrastructure and systems that leverage LPG</li> </ul>	
	Establish and implement green LPG technologi es	Green: Eco- efficient products and renewable energy Transition: LPG	Cost of R&D for the practical implementation of green LPG	

## 3.2 Process of project evaluation and selection

Potentially eligible projects will be identified by the division responsible for their execution and put forward for preliminary evaluation and screening by members of Iwatani's Corporate Planning & Coordination Department, Accounting Department, and other relevant units. Once a project has passed the preliminary screening, the Accounting Department will enter into discussions with the division that originated the project to confirm whether it satisfies the eligibility requirements. The final determination will be made by the executive officer in charge of accounting.

All potentially eligible projects will be subject to review to ensure that they meet the following environmental and social risk requirements:

- ☐ The project complies with local laws and statutes that govern the safety requirements for handling industrial gas and hydrogen, and for constructing and operating facilities that supply those resources.
- □ Local communities are kept appropriately informed and updated before project commencement.

#### 3.3 Management of proceeds

The proceeds of the green, green transition, and sustainability bonds will be allocated to the eligible projects and managed by the Accounting Department, who will also track and monitor the funds to ensure that amounts allocated to the projects will always equal the value of the bonds issued.

The bond proceeds will be managed as cash or cash equivalents until they have been fully allocated, or in the event that any part of the proceeds becomes unused due, for example, to lwatani's divestment of the relevant project. All funds are expected to be allocated to their projects within about three years after bond issuance.

# 3.4 Reporting

Iwatani will provide an annual update through its website and integrated reports on how the funds have been allocated to the eligible projects, as well as on the environmental and social impacts of the related projects.

#### 3.4.1 Allocation reporting

Until all bond proceeds have been allocated to the eligible projects, Iwatani will do its utmost to provide annual updates on how the proceeds have been allocated to date. The update will include the following information:

The amount of allocated and unallocated funds for each eligible project category
A timescale on when the unallocated funds (if any) will be allocated to their projects
and how they will be managed until then
The ratio of finance for new investments and refinance

The first update on fund allocation will be provided no later than one year after the bond issuance. In the event that a significant change has occurred in the status of the funds after they've been allocated, lwatani will make a disclosure to that effect in a timely manner.

#### 3.4.2 Impact reporting

Iwatani will provide a report on the environmental and social impacts of the eligible projects financed by the bond proceeds.

The report is expected to include the following details:

Project category	Objective	ICMA project category	Item of impact reporting
Development of a CO2-free hydrogen supply chain	Promote commercialization of a global CO2-	Green: Eco-efficient products, renewable energy, and clean transportation	Overview of project and feasibility studies

	free hydrogen supply chain	Transition: Hydrogen	
	Develop and	Green: Clean transportation	<ul> <li>Overview of project and R&amp;D</li> <li>Number of hydrogen refueling stations established</li> </ul>
	market technologies for the social	Green: Eco-efficient products	Overview of R&D and feasibility studies
	implementation of hydrogen	Green: Eco-efficient products and renewable energy Transition: Mixed gas	Overview of R&D and feasibility studies    (including in regions where mixed gas pipelines have been implemented)
	Recruit and develop people who respond to change and continue to create value	Green: Green buildings and eco-efficient products Transition: Hydrogen energy talent development	Overview of facility     Types of environmental certifications and the certification grades awarded
Promotion of a resource-circulating society	Develop and expand low-/zero-carbon solutions	Green: Pollution prevention and control (circular economy)	Overview of project
Provision of infrastructure and services that support local communities	Maintain resilient LPG supply chains and strengthen disaster prevention measures	Social: Affordable basic infrastructure Transition: LPG	Output: Overview of systems for reliably supplying LPG (streamlining of LPG supply logistics, supporting of domestic BCP efforts, proofing against natural disasters) Outcomes: Number of households in Japan to receive

			LPG supply, domestic penetration of BCP-related products, number of stations that have been proofed against natural disasters
implen	lish and ment green echnology	Green: Eco-efficient products and renewable energy Transition: LPG	Overview of R&D