

Environment

Responding to Climate Change

Policy and Concept

Under the Paris Agreement, an agreement was reached to limit the average global temperature increase to less than 2°C compared to pre-industrial levels, and efforts to decarbonize are being made in many countries. The real estate industry as a whole and Tokyo Tatemono must strive to reduce greenhouse gas (GHG*) emissions deriving from real estate holdings and business activities.

The Tokyo Tatemono Group Environmental Policy calls for us to lead the community in the prevention of global warming. The Group strives to develop real estate that is superior in environmental performance (through deployment of energy-saving equipment and other features). We continue to work with building management companies and tenants on operational aspects. At the same time, in response to climate change risks, we are developing real estate that is resistant to wind, flooding, and other natural disasters.

* "Greenhouse gas" (GHG) is the general term for a gas that causes a greenhouse effect in the Earth's atmosphere.

Environmental Management P.15

Support for TCFD

Climate change is a social issue that calls for global collaboration. As such, it is a priority that Tokyo Tatemono must also address.

The Tokyo Tatemono Group considers the increasingly severe natural disasters caused by climate change, such as storm and flood damage, to be a major risk to its assets. On the other hand, Japan's declared goal of achieving a carbon neutral society with zero GHG emissions by 2050 can be expected to lead to the further spread and expansion of green investment in areas such as sustainable energy, which we expect will lead to new business opportunities for our Group.

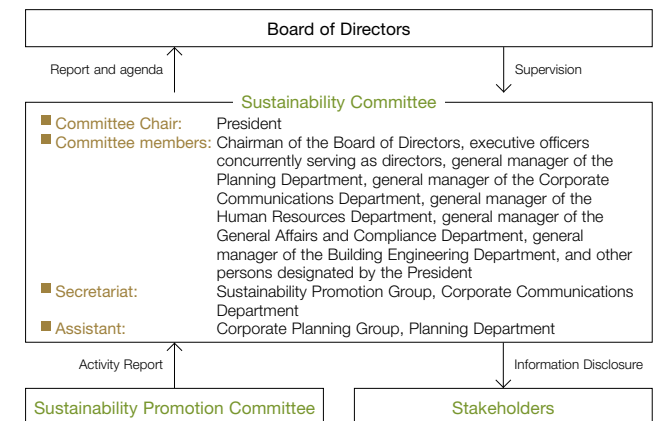
The Group announced its endorsement of the TCFD in June 2020. We will continue to accelerate our GHG emissions reduction efforts to contribute to the achievement of SDGs as well as the 2°C target set forth in the Paris Agreement. We also recognize the importance of disclosing financial information related to climate change, and will work to expand our information disclosure in accordance with TCFD recommendations.



Governance

At Tokyo Tatemono Group, the Sustainability Committee discusses the formulation of policies for addressing risks and opportunities linked to climate change as well as important matters such as our GHG emissions reduction efforts and progress against our reduction targets. Chaired by the president, the Committee reports its findings to the Board of Directors for discussion. The Sustainability Committee proposes and formulates policies and strategies for important matters related to the promotion of sustainability, such as GHG emissions reduction targets and studies toward expanding the use of renewable energy. In addition, the Sustainability Promotion Committee, a subordinate organization of the Sustainability Committee, examines specific measures for implementing these policies.

Governance Structure



Corporate Philosophy, Group Profile, Contents, Editorial Policy

Management

Message from the President and CEO

ESG Management

Materiality of the Tokyo Tatemono Group

Special Feature

Environment

Environmental Management

Sustainability Finance

External Evaluation and Certification for Green Building

> **Responding to Climate Change**

Pollution Control and Resource Recycling

Water Resources

Biodiversity

Responding to Natural Disasters

Social

Diversity & Inclusion

Work-Life Balance

Human Resource Investment and Development

Health Management / Occupational Safety and Health

Respect for Human Rights

Improving Quality and Customer Satisfaction

Revitalizing and Utilizing Real Estate Stock

Contributing to Our Communities

Governance

Corporate Governance

Risk Management

Compliance

Supply Chain Management

Data

Third-Party Assurance

Corporate Philosophy, Group Profile, Contents, Editorial Policy

Management

Message from the President and CEO

ESG Management

Materiality of the Tokyo Tatemono Group

Special Feature

Environment

Environmental Management

Sustainability Finance

External Evaluation and Certification for Green Building

> **Responding to Climate Change**

Pollution Control and Resource Recycling

Water Resources

Biodiversity

Responding to Natural Disasters

Social

Diversity & Inclusion

Work-Life Balance

Human Resource Investment and Development

Health Management / Occupational Safety and Health

Respect for Human Rights

Improving Quality and Customer Satisfaction

Revitalizing and Utilizing Real Estate Stock

Contributing to Our Communities

Governance

Corporate Governance

Risk Management

Compliance

Supply Chain Management

Data

Third-Party Assurance

Environment

Responding to Climate Change

■ Strategy (scenario analysis)

Drawing from multiple scenarios published by the IPCC*1 and the IEA*2, the Tokyo Tatemono Group based its analysis on two scenarios: the current scenario (4°C scenario), in which temperatures rise by 4°C or more compared to pre-industrial levels by 2100, and the transition scenario (<2°C scenario), in which temperature rise is limited to less than 2°C. The scope of the analysis was to identify the main risks and opportunities—primarily for the Group’s core businesses, the Commercial Properties Business and Residential Business—and to assess their materiality in terms of their expected degree of impact on the Group’s finances. The period of impact was categorized in to short-term (1-5 years), medium-term (5-10 years), and long-term (>10 years). Based on the results of this analysis, the Group set its targets for its initiatives toward realizing a decarbonized society.

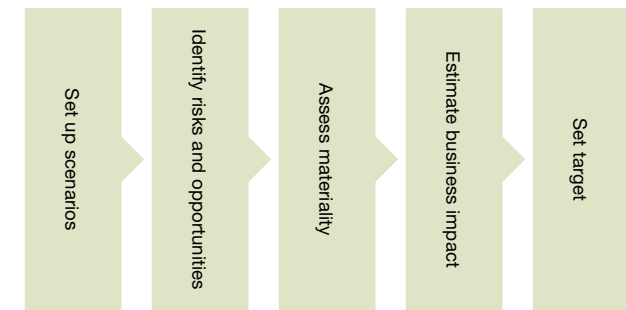
*1 IPCC (Intergovernmental Panel on Climate Change): an institution that provides clear scientific opinions of the status of climate change and its socioeconomic impact.

*2 IEA (International Energy Agency): an independent body within the OECD that facilitates policy cooperation on energy security and energy.

The Two Scenarios Used in the Analysis

Current scenario (4°C scenario)	A scenario in which the average temperature rises by about 4 °C compared to pre-industrial levels as a result of failure to introduce stricter government policies and strengthen regulations, such as regulations to curb GHG emissions, and of failure by businesses to take effective action in response to climate change. Acute effects include more frequent extreme weather events and more intense heavy rainfall, while chronic effects include rising sea levels.
Transitional scenario (2°C scenario)	A scenario in which the average temperature rise compared to the pre-industrial levels is kept below 2°C by improving low-carbon technologies, expanding renewable energy, and promoting energy conservation. In this scenario, companies around the world are strongly required to respond to climate change by introducing carbon taxes and strengthening policies to regulate emissions in order to curb GHG emissions.

Risk Analysis Review Process



■ Risk Management

Climate change risk is recognized as one of the most important risks that could have a significant impact on the management of the Tokyo Tatemono Group, and is managed within a company-wide risk management framework. The Sustainability Committee examines each policy and strategy for minimizing risk and targeting opportunities associated with climate change risks. These are reported to the Board of Directors and included in its agenda as necessary.

Identify Risks and Opportunities; Assess Materiality

		Type	Contents	Period of impact
Risk	Physical	Acute	■ Frequent and intense heavy rains Development and Sales: Longer construction periods and higher construction costs for real estate under development Operation and management: Facility failure and suspension of lifeline functions due to flooding at owned properties	Short term
	Physical	Chronic	■ Temperature rise Operation and management: Failure of machinery and equipment at owned properties due to solar radiation and high heat	Short term
	Transition	Policies and regulations	■ Carbon pricing Development and Sales: Increase in procurement prices of materials such as steel and cement Operation and management: Increase in energy costs including electricity	Medium-term
	Transition	Policies and regulations	■ Strengthen environment-related certification standards Development, operation, and management: Procurement of materials and installation of equipment necessary to meet the standards	Medium-term
Opportunity	Transition	Products & Services	■ Promote energy conservation and efficiency / Spread renewable energy / Raise environmental awareness among customers Development, operation, and management: Increase in demand for green buildings, ZEB and ZEH, etc., and decrease in costs related to supply Increased opportunities to acquire tenants due to strengthened measures to create energy and conserve energy	Medium-term
	Transition	Products & Services	■ Improved reputation due to strengthening of environmental laws and regulations Development, operation, and management: Improving the reputation of our own environmentally friendly buildings	Medium-term

Corporate Philosophy, Group Profile, Contents, Editorial Policy

Management

Message from the President and CEO

ESG Management

Materiality of the Tokyo Tatemono Group

Special Feature

Environment

Environmental Management

Sustainability Finance

External Evaluation and Certification for Green Building

> **Responding to Climate Change**

Pollution Control and Resource Recycling

Water Resources

Biodiversity

Responding to Natural Disasters

Social

Diversity & Inclusion

Work-Life Balance

Human Resource Investment and Development

Health Management / Occupational Safety and Health

Respect for Human Rights

Improving Quality and Customer Satisfaction

Revitalizing and Utilizing Real Estate Stock

Contributing to Our Communities

Governance

Corporate Governance

Risk Management

Compliance

Supply Chain Management

Data

Third-Party Assurance

Environment

Responding to Climate Change

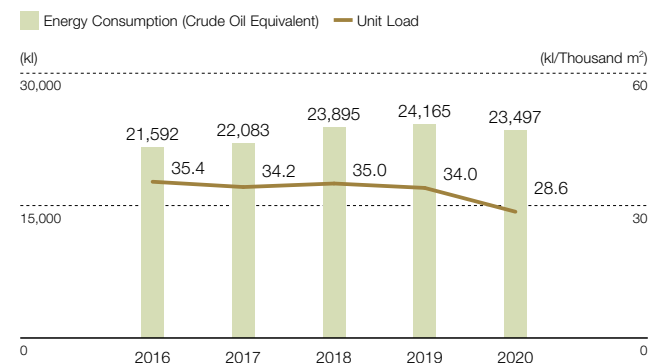
Through the Sustainability Promotion Committee, we will continue to monitor our climate change-related measures. Using a PDCA cycle, we will explore better approaches while also reviewing risks and opportunities.

[Risk Management P.63](#)

■ Indicators and Targets

The Tokyo Tatemono Group has for some time been conducting quantitative monitoring of GHG emissions and announcing the results of this monitoring. In addition, in May 2021, we have also set the targets shown on the right for addressing climate change and achieving a carbon-neutral society.

Energy Consumption (Facilities subject to the Act on the Rational Use of Energy)



[\(Data\) Energy Consumption and CO₂ Emissions P.68](#)

» Target for 2050

- Net zero CO₂ emissions*¹
- Ensure that 100% of the electricity consumed in our business activities is from renewable energy sources*².

» Target for 2030

- A 40% reduction in CO₂ emissions compared to fiscal 2019.
- Ensure that 40% of the electricity consumed by our real estate holdings is from renewable energy sources.
- In principle, develop ZEB*³ and ZEH*⁴ in all new office buildings, logistics facilities, and condominiums.
- In principle, acquire green building certification for all newly developed office buildings and logistics facilities.

*¹ CO₂ emissions: Total emissions from Scope 1, 2 and 3. Scope 1: Direct emissions that occur from the use of fuel by the Group, Scope 2: Indirect emissions that occur from the use of electricity and heat purchased by the Group, Scope 3: Indirect emissions that occur from other business activities (building construction, use of sold real estate, etc.)

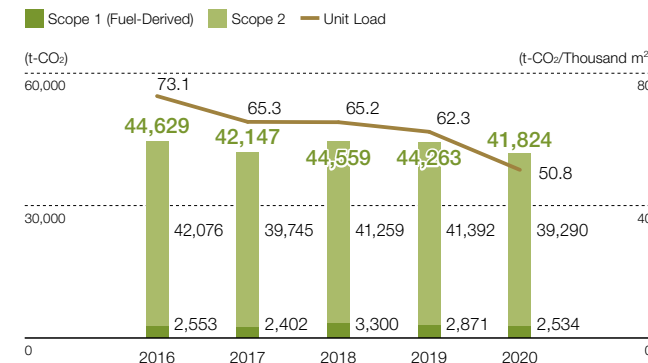
*² Includes consumption of non-fossil fuel certificates categorized as renewable energy.

*³ Zero Energy Buildings (ZEB) is a building that aims to achieve annual primary energy consumption balance of zero by maximizing energy independence through the use of advanced technologies that enable significant energy savings and the introduction of renewable energy. ZEB consists of Nearly ZEB (energy savings of at least 75%), ZEB Ready (energy savings of at least 50%) and ZEB Oriented (energy savings of at least 40% in office buildings and 30% in hotels with a floor space of 10,000m² or more), each of which will be included in the Group's initiatives.

*⁴ Zero Energy Houses (ZEH) reduces total energy consumption through measures such as heat insulation and energy savings as well as generating energy through power generation to balance out the annual primary energy consumption to zero. ZEH-M, the zero energy housing standard for condominiums, consists of Nearly ZEH-M (energy savings of at least 75%), ZEH-M Ready (energy savings of at least 50%) and ZEH-M Oriented (energy savings of at least 20%), each of which will be included in the Group's initiatives.

[\(Data\) KPIs and Targets P.74](#)

GHG Emissions (Facilities subject to the Act on the Rational Use of Energy)



[\(Data\) Energy Consumption and CO₂ Emissions P.68](#)

Climate Change Initiatives in the Commercial Properties Business

■ Development and Promotion of ZEB

Tokyo Tatemono is registered in the ZEB Leading Owner Registration System and we aim to contribute to the promotion



ZEB Leading Owner Mark



ZEB Ready Certification Label

Environment

Responding to Climate Change

of ZEB. The Hareza Tower is the first high-rise, mixed-use building to receive ZEB Ready certification, thanks to the installation of a highly versatile facility system that includes LED lighting, brightness sensor and motion sensor controls, and a high-efficiency air-cooled heat pump package, as well as consideration of appropriate design conditions, such as the selection of 500 lux lighting fixtures for dedicated office areas.

■ Adoption and Upgrading of Energy-saving Equipment and Devices

In the buildings that we own, we are actively adopting and upgrading energy-saving equipment and devices, and in particular, we are systematically promoting the use of LED lighting. As of the end of FY2020, 91% of our buildings had already completed or were in the process of converting to LEDs.

■ Switching Headquarters Building to Renewable Energy

In July 2020, we began using non-fossil fuel certificates to switch all of our electricity consumption at the Tokyo Tatemono Yaesu Building, which serves as our headquarters building, to renewable energy. This initiative involves the supply of electricity using Non-Fossil Fuel Certificates with Tracking, which certify the environmental value of solar power generation. It is expected to reduce annual CO₂ emissions by approximately 1,700 tons.

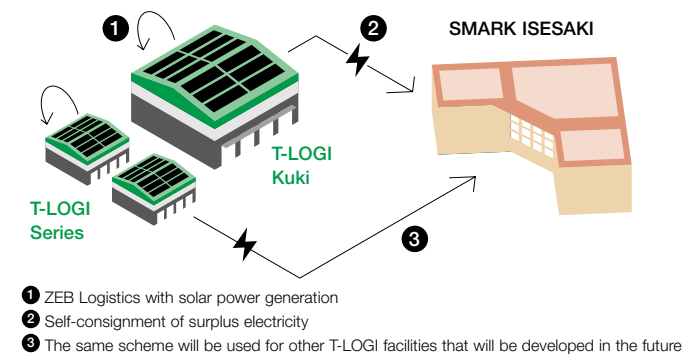
■ Generation and Use of Renewable Energy

In December 2020, we signed a basic agreement with Tokyo Gas Co., Ltd. to implement environmentally friendly initiatives using renewable energy.

As a first step in this initiative, we will install large-capacity solar panels at T-LOGI Kuki, a logistics facility developed by Tokyo Tatemono. The electricity generated will be consumed onsite at the facility, which will acquire ZEB certification as an environmentally friendly logistics facility. In addition, surplus electricity that cannot be fully consumed by T-LOGI Kuki will be self-consigned to SMARK ISESAKI, a commercial facility owned by Tokyo Tatemono.

Similar to T-LOGI Kuki, the T-LOGI series of logistics facilities scheduled for construction in the future will also be equipped with solar panels and promote energy conservation to realize environmentally friendly logistics facilities (ZEB Logistics). In addition, we will build a self-consignment business model in which a number of T-LOGI facilities will supply electricity to a designated facility (SMARK ISESAKI).

Image of Self-Consignment Business



Cooperative Initiatives with Tenants

■ Hold Energy Conservation Promotion Meetings

Tokyo Tatemono holds an Energy Conservation Promotion Council every year in cooperation with tenants at offices subject to the Tokyo Metropolitan Government's Total Volume Reduction System. We explain our energy-saving activities and reduction targets, and introduce tenants' energy-saving efforts. Through this council, we aim to enhance the energy-saving activities of both our company and tenants.

■ Introduction of Green Lease Provisions

In buildings owned by our company, we are working with tenants to introduce green lease clauses into the template of lease contracts in order to reduce the environmental impact of energy conservation and other measures and to improve the working environment even in dedicated areas.

■ Monitor Displaying Energy Consumption

At Shijo-Karasuma FT Square, in conjunction with the replacement of the central monitoring system in 2019, monitors were installed on the first basement floor and first floor that display the amount of each utility (electricity, gas, and water) being used in the building each day. Visually displaying energy consumption in this way enables Tokyo Tatemono as building manager to work together with our tenants to be environmentally conscious.



Monitor displaying energy consumption

Corporate Philosophy, Group Profile, Contents, Editorial Policy

Management

Message from the President and CEO

ESG Management

Materiality of the Tokyo Tatemono Group

Special Feature

Environment

Environmental Management

Sustainability Finance

External Evaluation and Certification for Green Building

> Responding to Climate Change

Pollution Control and Resource Recycling

Water Resources

Biodiversity

Responding to Natural Disasters

Social

Diversity & Inclusion

Work-Life Balance

Human Resource Investment and Development

Health Management / Occupational Safety and Health

Respect for Human Rights

Improving Quality and Customer Satisfaction

Revitalizing and Utilizing Real Estate Stock

Contributing to Our Communities

Governance

Corporate Governance

Risk Management

Compliance

Supply Chain Management

Data

Third-Party Assurance

Environment

Responding to Climate Change

Climate Change Initiatives in the Residential Business

■ Promote the Development of ZEH-M (ZEH Mansion)

Tokyo Tatemono was registered under the ZEH Developer Registration Program in May 2018. Since then, we have worked as a ZEH Developer to aid the spread of ZEH-M apartments.

Following an open submission process, Brillia Tower Seiseki Sakuragaoka Blooming Residence was selected by the Ministry of Economy, Trade and Industry as the first and only project in the Tokyo metropolitan area for the fiscal 2019 Super-High-Rise ZEH-M Demonstration Project.*

This condominium meets the ZEH-M Oriented standard for high-rise apartments with six or more floors due to its improvement in outer wall insulation performance, the adoption of high-insulation doors, the use of high-efficiency hot water supply equipment, etc.

* The unofficial English translation of the official Japanese name of this METI project is the "Super-High-Rise ZEH-M Demonstration Project of the 2019 Support Subsidy for Promoting Energy-Saving Investment (Project for Promotion of Innovative Energy-Saving Investment Implementation in Housing/Buildings) (Net Zero Energy House Support Project)." This is a key demonstration project necessary to formulate design guidelines for promoting ZEH for multiple-dwelling residences. The project partially subsidizes expenses for ZEH conversion of shared dwellings incurred by operators who provide design specifications and energy performance-related data.

ゼロエネルギーで、暮らそう。



Brillia Tower Seiseki Sakuragaoka Blooming Residence

■ Use of Green Power Certificates

Since May 2016, we have been using the framework of Green Power Certificates to switch to 100% renewable energy sources for the electricity used in our Brillia brand condominium model rooms. In 2020, we utilized Green Power Certificates for approximately 420,000 kWh of electricity.

Development of Mega Solar Business

Tokyo Fudosan Kanri has been involved in the mega solar business since 2012. Through this company, we are developing solar power plants mainly in the northern Kanto region. As of the end of December 2020, we had eight plants with a total power generation capacity of approximately 13MW.



Oyama Solar Power Plant



Iwaki Solar Power Plant



Hatoyama Solar Power Plant

List of Solar Power Plants

Name (Location)	Power generation capacity	Date of operation
Oyama Solar Power Plant (Oyama City, Tochigi Prefecture)	785kW	February 2013
Iwaki Solar Power Plant (Iwaki City, Fukushima Prefecture)	2,454kW	November 2013
Joso Solar Power Plant (Joso City, Ibaraki Prefecture)	672kW	September 2014
Hatoyama Solar Power Plant (Hatoyama-machi, Hiki-gun, Saitama Prefecture)	1,908kW	March 2015
Tochigi Hirai Solar Power Plant (Tochigi City, Tochigi Prefecture)	1,559kW	March 2015
Tochigi Nishikata Solar Power Plant (Tochigi City, Tochigi Prefecture)	1,884kW	June 2015
Shirakawa Solar Power Plant (Tanakura-machi, Higashishirakawa-gun, Fukushima Prefecture)	2,034kW	November 2015
Higashihiroshima Solar Power Plant (Higashihiroshima City, Hiroshima Prefecture)	1,086kW	December 2015

Corporate Philosophy, Group Profile, Contents, Editorial Policy

Management

Message from the President and CEO

ESG Management

Materiality of the Tokyo Tatemono Group

Special Feature

Environment

Environmental Management

Sustainability Finance

External Evaluation and Certification for Green Building

> Responding to Climate Change

Pollution Control and Resource Recycling

Water Resources

Biodiversity

Responding to Natural Disasters

Social

Diversity & Inclusion

Work-Life Balance

Human Resource Investment and Development

Health Management / Occupational Safety and Health

Respect for Human Rights

Improving Quality and Customer Satisfaction

Revitalizing and Utilizing Real Estate Stock

Contributing to Our Communities

Governance

Corporate Governance

Risk Management

Compliance

Supply Chain Management

Data

Third-Party Assurance