

Policy and System for Environmental Initiatives

Policy and Concept

The Tokyo Tatemono Group contributes to sustainable societies through environmentally friendly business activities. We formulated the Group Environmental Policy, which is a group-wide shared policy that serves as the foundation a management structure designed for the business attributes of our Office Buildings Business. This business includes building construction, operation, and management, and our housing development business, which includes the Brillia brand. Other businesses and group companies engage in environmentally friendly business under environmental guidelines established in line with the Group Environmental Policy.

Further, we strive to improve our environmental performance to prevent contributing to climate change and environmental damage. We accomplish this done through measures such as reducing greenhouse gas emissions, strengthening our response to climate change, and promoting the development of environmentally friendly real estate. In this, we work to develop real estate harmoniously with nature. Through these efforts, we reduce our environmental burden and create abundant, comfortable spaces.

Group Environmental Policy

- **Creating a pleasant city and living with greenery**

We will create a rich and comfortable environment for earth and people by utilizing the strength of greenery as much as possible with consideration to biodiversity.

- **Climate change prevention that leads the community**

We will actively implement environmentally friendly technologies and ideas into our products and services to lead the community in building a low-carbon city.

- **Resource-saving activities that are kind to the earth**

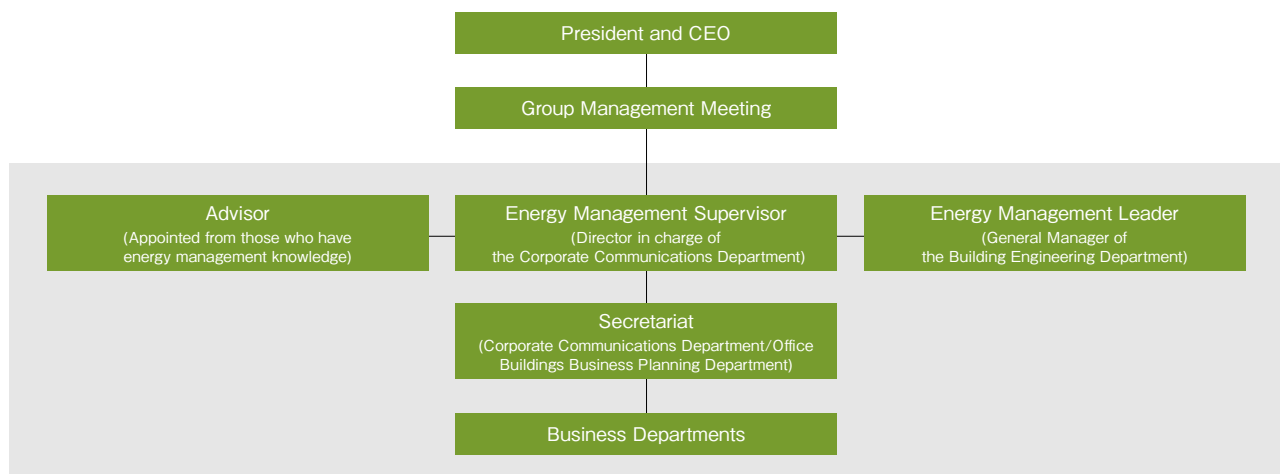
We will strive to reduce the use of resources and environmental impact through all available opportunities and contribute to creating a recycling-oriented society.

- **Developing employees with high environmental awareness**

We will comply with laws related to the environment and educate and raise the awareness of our employees about the environment.

Established January 2011

► Environmental Promotion Structure



Environmental Management in the Office Buildings Business

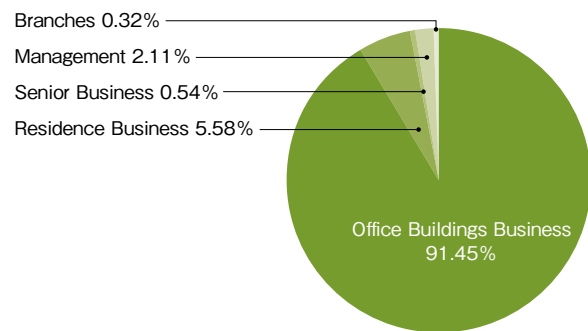
Among all Tokyo Tatemono business activities, the Office Buildings Business, which operates and manages commercial office buildings, uses the most energy. The energy usage of this business accounts for 93.9% of all usage within Tokyo Tatemono (calculation based on the Energy Conservation Act*). Therefore, reducing the amount of energy used in the Office Buildings Business results in a significant reduction of Tokyo Tatemono's total energy consumption.

The Office Buildings Department has formulated an environmental execution plan. This plan is founded on a strong awareness of energy conservation in light of the problem of climate change. With this, we strive to carry out energy-saving activities on a daily basis. When developing new buildings, we adopt environment and energy-saving technologies for environmentally friendly buildings that are well-received by society. For existing buildings, we promote energy savings by strategically renovating buildings using energy-saving equipment. We also make efforts to save energy in operations and reduce environmental impact with the help of our tenants.


Moreover, we have set a quantitative indicator in the form of a power consumption per floor area unit to reduce energy consumption. Here, we target a 1% annual unit reduction averaged over five years as a target in accordance with the Energy Conservation Act (this per-unit basis also applies to GHG emissions).



*Act on the Rational Use of Energy


► Share of Tokyo Tatemono Energy Consumption by Business (2019)



► Environmental Execution Plan and Guidelines

Area	Environmental Execution Plan		Guideline
Greening 	Building rich greenery that helps cities transform and thrive	We promote rich greening that gives people a sense that their city is transforming and thriving.	<p>New construction: We aim for greening of at least 5% of structure area and at least 50% of exterior area. We also promote interior greening.</p> <p>New construction and renovation: We promote structure greening for all buildings, creating rich environments for their users. Specifically, we implement layout plans that include considerations for rooftop greening, the cultivation of exterior plants, and plant upkeep and management plans.</p> <p>Operations: We create and maintain a plant management plan, and we conduct regular monitoring and proposal of plans for improvement.</p>
	Rebuilding ecosystems with biodiversity	We rebuild abundant, local natural settings, fostering lush ecosystems created by the competition and coexistence of diverse organisms.	<p>We acquire and renew certifications for the preservation of existing trees and the conservation of ecosystems.</p> <p>New construction and renovation: We form planting plans that reflect the particular characteristics of the site in question and the policies of the area. We eliminate intrusive species that damage the ecosystem, devise planting plans that take into account the conservation of native species, and maintain ecosystems by ensuring continuity with surrounding green spaces.</p> <p>Operations: We conduct charitable donation and awareness outreach activities.</p>
	Designing tree placement for comfortable, abundant urban environments that produce enjoyable sunlight	We contribute to the creation of comfortable urban environments by positioning trees for optimal shadows and heat shielding.	<p>We promote efforts to mitigate the heat island phenomenon.</p> <p>New construction: We explore placement plans that incorporate exterior wind paths, fluid simulations, and other factors.</p> <p>New construction and renovation: In addition to incorporating measures related to roof, exterior, and ground surfaces, we engage in a variety of other measures that include mitigating reflections from buildings, equipment planning for mitigating thermal environment degradation, vacant space planning for wind paths, securing appropriate shade, ensuring green and water coverage ratios, and minimizing pavement area.</p>
	Using green assets to improve area value	We create rich, lush landscapes and cultivate forums for communication through greening, improving the value of the surrounding area.	<p>New construction and renovation: We plan environments and facilities that give a sense of closeness to nature, promoting the formation of good landscapes by greening roadsides, etc.</p> <p>Operations: We sponsor events that offer participants a sense of closeness to nature. We also participate in area planting management and other initiatives.</p>

Area	Environmental Execution Plan	Guideline
Energy conservation  	<p>Acquisition and retention of third-party environmental performance certification</p> <p>We promote the construction and management of buildings, emphasizing environmental performance. We acquire and retain third-party certification for the environmental performance of these buildings and contribute to sustainable low-carbon urban development.</p> <p>[Quantitative Targets] < Scope > New construction: Long-term retention, value-added class office buildings and standard class office buildings Existing construction: Long-term retention, value-added class</p> <p>< Target > ① 4 or 5 stars in the DBJ Green Building Certification ② A or S rank in the CASBEE building assessment (new buildings) ③ 4 or 5 stars in the BELS Evaluation Certification</p>	<p>New construction: We acquire third-party certification and explore implementation of low-CO₂ leadership projects, and so on. Operations: We pursue the renewal of third-party certifications and new certification acquisition for buildings without said certifications.</p>
	<p>Creating buildings with high environmental performance</p> <p>Our buildings offer high environmental performance while maintaining the health and comfort of workers.</p> <p>[Quantitative Targets] < Scope > All locations reported under Specified Business Operator Tokyo Tatemono subject to the Act on the Rational Use of Energy</p> <p>< Target > 1% annual unit reduction in crude oil equivalent (moving average over 5 years) *Also applies to greenhouse gas emissions originating from CO₂</p>	<p>We aim to improve environmental performance.</p> <p>New construction: BPI*¹ of no more than 10.90, BEI*² of no more than 20.65 (actively work toward ZEB*³ status)</p> <p>Operations: Understand and present actual primary energy consumption unit values.</p> <p>Conduct environmentally friendly planning and management.</p> <p>New construction and renovation: Use LED lighting and luminance in dedicated areas of 500lx, energy-saving glass, presence sensors. We consider interior brightness levels and encourage subdivided lighting zones.</p> <p>Renovation and operations: We study energy conservation measures, including energy conservation checkups.</p> <p>Operations: We carry out appropriate filter cleaning.</p>
	<p>Adopting environmentally advanced technology initiatives</p> <p>We proactively incorporate environmentally advanced technologies and initiatives to encourage buildings that lead in environmental advancement in their regions.</p>	<p>New construction and renovation: We promote a number of initiatives, including the implementation of solar power generation systems, the exploration renewable energy use, the use of passive energy-saving technologies (e.g. leveraging natural lighting/ventilation, geothermal energy), the adoption of daylight-harnessing technology, the use of insulation/heat shielding technology, the implementation of CO₂ monitoring systems, and the installation of high-efficiency equipment.</p> <p>Operations: We adopt and manage manuals for CO₂ monitoring systems, identifying the amount of renewable energy generated.</p> <p>We are investigating the adoption of energy that lowers the CO₂ emission factor, looking into energy certificate adoption via carbon offsets.</p>
	<p>Using energy management to reduce consumption</p> <p>We pursue environment-friendly building management in cooperation with the various building stakeholders, including customers.</p>	<p>New construction and renovation: We promote the implementation of BEMS/visualization systems and the setting of quantitative energy consumption targets.</p> <p>Operations: We promote the disclosure of environmental data to tenants, the creation of building operation systems and management policies, and the execution of power-saving measures.</p>

Area	Environmental Execution Plan		Guideline
Waste and water  	Cooperating with customers to contribute to a recycling-oriented society	<p>We contribute to the creation of a recycling-oriented society by working with our customers to promote the reduction, reuse, and recycling of waste.</p> <p>[Quantitative Targets] < Scope > Specified Business Operator Tokyo Tatemono buildings subject to the Act on the Rational Use of Energy and all buildings offered by Tokyo Tatemono < Target > 5% waste unit reduction from FY2017 to FY2022 (equivalent to 1% reduction annually)</p>	<p>New construction and renovation: We conduct a variety of initiatives, including the implementation of trash weighing systems, the appropriate planning for recycling stations, the planning for stock spaces enabling ample waste separation, studies to reduce kitchen waste volume or compost kitchen waste, and the confirmation of recycling rates/waste management policies during construction.</p> <p>Operations: Our initiatives include waste separation/reuse, reduction in waste via tenant meetings on separation and recycling, educational activities regarding waste separation, tours of waste treatment plants, contracts that define recycling items, and the implementation/operation of waste volume reduction measures.</p>
	Reducing environmental impact from water conservation/use of grey water	<p>[Water Reduction Targets] Reduce water use 5% by FY2022 (1% per year) compared to FY2017 water consumption intensity</p>	<p>New construction and renovation: We engage in measures that include the use of water-saving equipment in wash basins, hot water heaters, etc., the use of water-saving toilets, the implementation of rainwater runoff control measures, the prevention of water leakage, and compliance with discharge standards such as the Water Pollution Prevention Act and Sewerage Act. We are also studying ways to reuse rain water and grey water.</p> <p>Renovation and operations: We explore and ascertain the amount of water saved through renovations.</p> <p>Operations: We ascertain actual water usage, determine cooling tower water usage, and investigate water conservation related to cooling towers.</p>
	Achieving long building lifespans through development that considers future maintenance and upgrades	<p>We make plans during construction phases to facilitate maintenance and upgrades to ensure an extended building lifespan.</p>	<p>New construction: We create long-term repair plans, ensure the strength of core structural frames, make plans to separate frames from finishing materials easily, plan rooms and finishes in consideration of upkeep and maintenance, and adopt ducting/piping that ensure long service lives.</p> <p>New construction and renovation: We adopt finishing materials that offer long service lives for exterior and interior walls. We include the maintainability of key equipment as part of our planning, and consider the ease of upgrades when planning air conditioning piping, sanitary piping, high voltage wiring, and low voltage wiring. When upgrading facilities, we consider maintainability of structures and backup equipment, etc.</p> <p>Operations: We share medium- to long-term repair plans with property/building managers and implement maintenance and repairs based on these plans, calculating planned costs and energy-savings.</p>
	Proactive use of eco-materials and recycled materials	<p>We work to create a cycle of recycling by utilizing eco-materials and recycled materials.</p>	<p>New construction, renovation, and operations: We engage actively in the use of sustainable wood materials, low-impact eco-materials and recycled materials. We comply with regulations related to ozone depletion factors related to cooling and actively engage in adopting ozone depletion factors and warming factors for other construction materials (insulation, gas extinguishing agents, etc.).</p>
Environmental awareness  	Dissemination of information on the environment and spread/improvement of environmental awareness	<p>By disseminating/sharing information about the environment, we contribute to the spread and improvement of environmental awareness among the various stakeholders involved in our buildings, such as employees, communities, and customers.</p>	<p>We disclose our sustainability initiatives and conduct energy conservation awareness activities.</p>
	Forming the Environmental Committee and ongoing PDCA cycles	<p>We operate environment-related organizations, engage in highly-effective environmental activities, set, execute, and monitor environment-related goals, and engage in ongoing improvement activities.</p> <p>< Shared Items > ・ Forming an Environmental Committee ・ Establishing an environmental management system (Eco Action 21 external certification, company internal auditing, etc.) ・ Implementing external systems for environment data collection (for energy, water, etc.)</p>	<p>We conduct regular surveys related to energy and environmental conservation. We also sponsor on-site cleanup activities, hold energy conservation meetings, promote green leasing, conduct energy conservation efforts in cooperation with tenants, formulate and manage properties based on environmental policy, and determine environmental data and confirm certification status upon the purchase of properties.</p>

*1 BPI: Building Palstar Index. A standard for annual heat load established in accordance with revisions to the Act on the Rational Use of Energy calculated with PAL (Perimeter Annual Load, also called PALSTAR, the annual heat load per unit of perimeter floor space).

*2 BEI: Building Energy Index. The ratio of primary energy consumption of the designed building compared to a standard building. Based on the Energy Consumption Performance Calculation Program.

*3 ZEB: Net Zero Energy Building. A building targeting a net-zero balance of annual primary energy consumption.

Environmental Management in the Residence Business

Our Residential Development Department formulated the Brillia Environmentally Conscious Housing Guideline, which provides a unified structure for our environmental measures. This guideline encourages a consideration for the environment in residences and improves the brand value of Brillia. In residential development, we design individual properties based on these guidelines and strive to reduce their environmental impact. We continue to update these guidelines according to ongoing social changes and technological advancements.

Supply Chain Initiatives

Through our developer business, the Tokyo Tatemono Group collaborates with many business partners in promoting

environmental initiatives. The Tokyo Tatemono Group actively incorporates environmentally friendly technology and ideas into our products and services in every stage of our business activities in accordance with the Group Environmental Policy. We strive to conserve resources and use materials that reduce environmental impact.

Compliance with Environmental Laws and Regulations

Tokyo Tatemono follows the Group Environmental Policy and adheres to all environmental laws and regulations.

When executing new development projects in Japan and overseas, we conduct the environmental impact assessments required in accordance with laws and regulations.

We experienced no environmental incidents or violations of environmental laws or regulations in 2019.

▶ Brillia Environmentally Conscious Housing Guideline

● Three Universal Core Concepts

Condominiums vary in size, service lives, and materials used. These dwellings have a broad impact on the environment and available countermeasures also run across a wide range. Therefore, we have incorporated three core concepts into the Brillia series: Think Green, Think Lifestyle, and Think Future.

I Think Green – Green & Cool residential spaces:

Setting up green spaces acts as a heat island countermeasure and brings about a rich natural environment friendly to the ecosystem.

II Think Lifestyle – Introduction of high-efficiency, green residential equipment:

High-efficiency equipment comfortably saves energy and contributes to disaster prevention in case of an emergency.

III Think Future – Eco Life Cycle Improvement Plan for Energy and Greenery:

Resident participation in operation and management as well as community development will continue in a cycle with concepts I and II, above.

● Ratings for Environmental Performance

In order to objectively judge the level of a condominium's environmental friendliness, we have established two tiers (Level 1 and Level 2) to describe environmental performance. These levels are equivalent to the Housing Performance Evaluation System. We evaluate our performance based on acquisition of CASBEE and Tokyo Green Labeling System for Condominiums certification. We have also established optional specifications for even greater consideration toward the environment.



▶ Environmental Incidents and Violations of Environmental Laws or Regulations

Category	Unit	2015	2016	2017	2018	2019
Violations of Environmental Laws or Regulations	Incidents	0	0	0	0	0
Environmental Incidents	Incidents	0	0	0	0	0
Environmental Fines	Yen	0	0	0	0	0