

## Embarking on Full-Scale Renovation of Existing Corporate Housing Aimed at Achieving Japan's First\*<sup>1</sup> Rental Condominium "Sustainabranche Hongyotoku" with Net Zero CO<sub>2</sub> Emissions ~ Promoting Research and Technological Development for Creating Housing of the Future by Establishing Experimental Residential Housing ~

**Tokyo, Japan, June 13, 2022**--The Haseko Group (parent company: HASEKO Corporation; head office: Minato-ku, Tokyo; president: Kazuo Ikegami) is undertaking a **rental condominium project for full-scale renovation of an existing corporate housing property to achieve net zero CO<sub>2</sub> emissions when in use**, aimed at further promoting research and technological development toward achieving a decarbonized society. This is the first project of this nature in Japan. The name of the new rental condominium has been decided as "**Sustainabranche Hongyotoku**," and renovation work will commence in late June 2022.

Besides technologies for saving energy, longer service life, and housing for wellness that contribute toward realizing a decarbonized society, this condominium also introduces a variety of the latest technologies possessed by the Haseko Group. At the same time, to create housing of the future that maximizes the use of IoT devices and AI technology, 13 out of the 36 units will be experimental residential housing units that collect environmental data for technological development.

The Haseko Group has established its climate change response policy HASEKO ZERO-Emission and set reduction targets with total CO<sub>2</sub> emissions as the index. Furthermore, in developments being led by the Group, all new for-sale condominiums and rental condominiums held by the Group will meet the ZEH-M Oriented standard when they are designed in fiscal 2022 or later. In the future, the expertise gained from this condominium will be actively applied to proposals for the remodeling and renovation of existing condominiums.

\*1. Based on research by ESP Research Institute, Inc. (research period: May 23 to June 6, 2022; research method: search of disclosed information using the keywords "condominium," "renewable energy," and "renovation" as well as multifaceted market survey)

(Project concept)

### Proposing Sustainable Housing

~ Delivered by Haseko for the global environment and future generations ~

Development concept

- Aim to achieve net zero CO<sub>2</sub> emissions by improving energy-saving performance of housing and using renewable energy
- Conduct renovation that achieves functions similar to new condominiums using existing buildings
- Promote research and technological development toward creating housing of the future



Before renovation



Conceptual image of renovated property (balcony side)

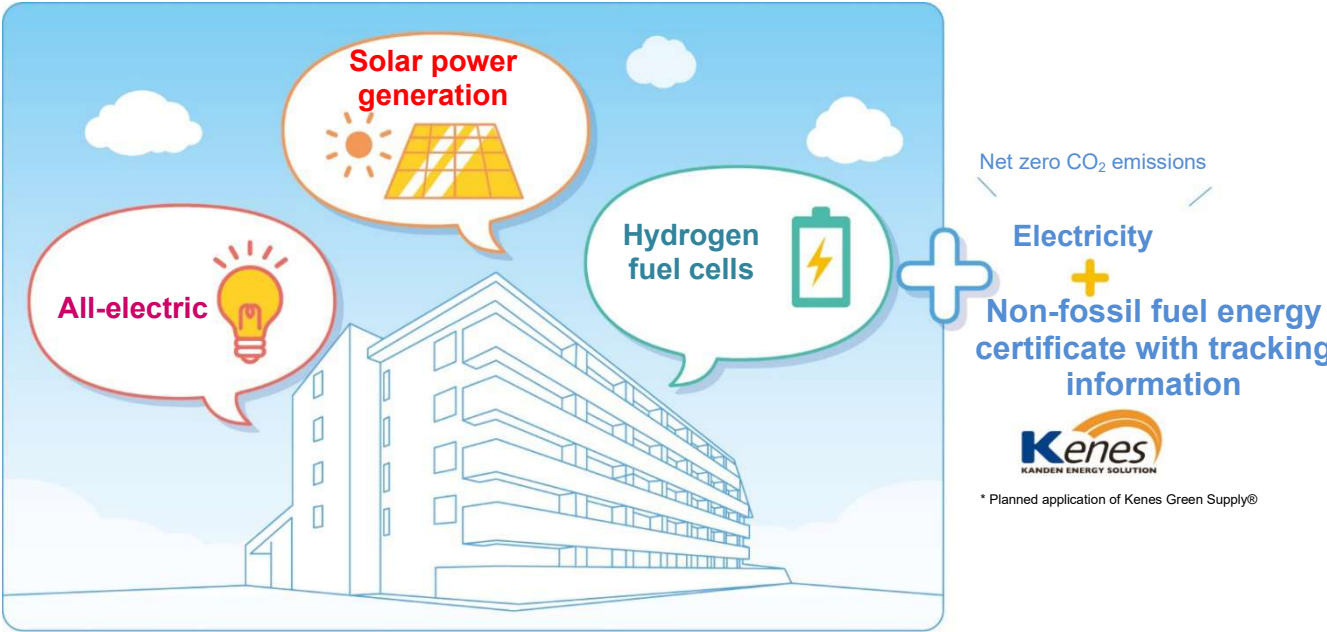
\* Details of design may change in the future

(1) Aim to achieve net zero CO<sub>2</sub> emissions by improving energy-saving performance of housing and using renewable energy

This condominium will be renovated such as by having its internal and external heat insulation performance improved, being upgraded to Low-E multilayered glass using the covering method, and being upgraded to LED lighting. The project seeks to acquire Building-Housing Energy-efficiency Labeling System (BELS) certification<sup>\*2</sup> by meeting the reinforced envelope standard (UA value)<sup>\*3</sup> and primary energy consumption<sup>\*4</sup> equivalent to the ZEH-M Oriented standard.

In addition, the existing infrastructure—which uses electricity together with gas—will be renovated to use electricity only. Installation of solar power panels on the roof, exterior walls, and balcony railings, adoption of hydrogen fuel cells, and introduction of the Kenes Green Supply® environmental value plan of Kanden Energy Solution Co., Inc. will also be carried out, adding environmental value derived from renewable energy. The aim is to achieve net zero CO<sub>2</sub> emissions when the building is in use, a first in Japan for existing renovated properties.

\*2. A system that evaluates and certifies the energy-saving performance of buildings  
\*3. An index which shows the ease that heat escapes from the overall housing, with a smaller value indicating higher insulation performance; 0.6 is the standard value for the Tokyo metropolitan area  
\*4. Energy consumption of air conditioning, ventilation, lighting, hot water supply, and such



System for net zero CO<sub>2</sub> emissions

(2) Conduct renovation that achieves functions similar to new condominiums using existing buildings

The composite dry exterior wall construction method (RC×EX construction method)<sup>\*5</sup> for new buildings jointly developed by Haseko and Nichiha Corporation was adapted for renovation and adopted in this condominium. By carrying out work over the existing tiles, attention will be paid to exterior design while seeking to reduce waste generated by existing tiles. In the selection of materials, offset siding<sup>\*6</sup> was adopted as a material that is excellent in durability and friendly to the environment.



Conceptual image of renovated property (entrance)

\* Details of design may change in the future

For the residential units, the unit plans were designed to minimize the removal of existing structural walls while allowing the installation of housing facilities similar to new condominiums.

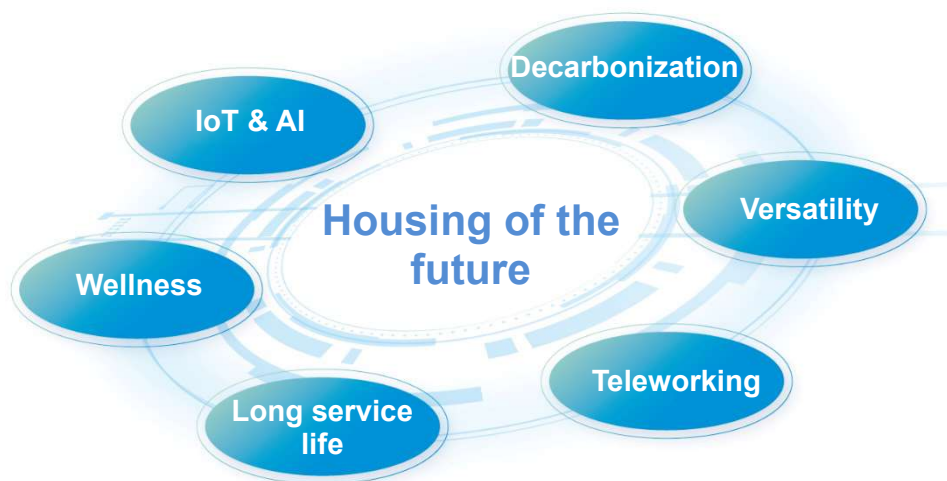
\*5. An exterior construction method where a steel mesh is laid on the exterior wall, on which ceramic siding is applied as exterior material

\*6. Wood chips used in this siding comes fully from domestic wood thinning with offset credits (CO<sub>2</sub> emission credits), and the offset credits included in the cost of materials are returned to initiatives such as forest maintenance projects

### (3) Promote research and technological development toward creating housing of the future

This condominium has a total of 36 units, of which 13 are experimental residential housing units and 23 are general rental housing units. The experimental units seek to collect data from various types of sensors while being occupied and apply the data in research and technological development for creating housing of the future that maximizes the use of IoT devices and AI technology.

Besides technologies for saving energy, longer service life, and housing for wellness that contribute toward realizing a decarbonized society, the Haseko Group will seek to deploy the data for the creation of new residential styles and remodeling technologies.



Research and technological development for housing of the future

### Overview

Condominium name	Sustainabranche Hongyotoku
Location	5-16 Hongyotoku, Ichikawa City, Chiba Prefecture
Access	6 minutes on foot from Myoden Station on the Tokyo Metro Tozai Line
Site area	1,651.83 m <sup>2</sup>
Total floor area	3,079.20 m <sup>2</sup>
Structure and scale	Reinforced concrete structure with 5 stories above ground and 36 units
Completion of existing building	February 1990 (32 years old)
Completion of renovation	Spring 2023
Developer	HASEKO Corporation
Design	Haseko Reform Inc.
Construction	Haseko Reform Inc.