

## Special Feature: GX initiatives

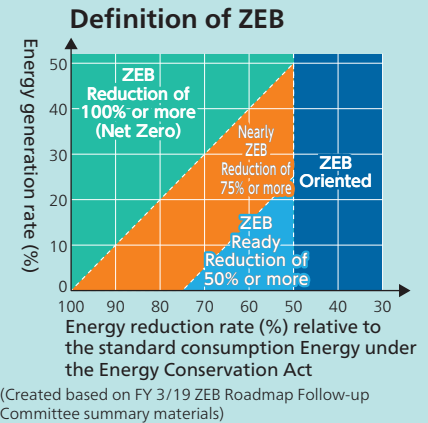
## ZEB Initiatives

## ZEB (Net Zero Energy Building) Performance

POC's Institute of Technology continues to develop energy-saving technologies for the promotion of conversion to ZEB. Energy monitoring of buildings after the completion of construction with energy-saving technologies has confirmed that ZEB features have been achieved, proving its effectiveness.

## POC's major achievements in ZEB construction

ZEB rank	Project Name	Energy saving rate	Energy creation rate	Energy conservation rate
ZEB	Hisamitsu Pharmaceutical Museum (2019)	65%	38%	103%
Nearly ZEB	EXEO Group, Inc. South Kanto Branch (2021)	50%	25%	75%
ZEB	POC Muroran Factory (2022)	65%	360%	425%
ZEB Ready	GLP Okinawa Urasoe Anshin General Distribution Center (2022)	51%	0%	51%
ZEB Ready	Landport Fukuoka Hisayama I (2023)	50%	0%	50%
ZEB	Hulic Logistics Kashiwa (2023)	64%	105%	169%
ZEB	CP Kasei Co., Ltd. Metropolitan Area Molding Factory (2024)	80%	20%	100%



Hisamitsu Pharmaceutical Museum



EXEO Group Inc., South Kanto Branch



Landport Fukuoka Hisayama I

## POC Muroran Factory

ZEB

The new Muroran factory was completed in 2022. With its ZEB-converted offices, all the facilities including the factory is powered by renewable energy sources. In addition to the existing business of fabricating steel structures for bridges, etc., the new factory will play a more significant role as a fabricating hub for temporary steel structures for offshore wind power construction, which is expected to have high demand in the future.

At the new factory which runs on 100% renewable energy, we will accumulate knowledge on the use of hydrogen energy through the use of by-product hydrogen and the production and use of green hydrogen generated from solar power, and apply this knowledge to our businesses.

- **Energy-saving technology applied to the offices of the new factory**
- Improvement of thermal insulation through the use of resin sashes
  - Reduction of lighting load through the use of light-collecting films
  - Introduction of high-efficiency air-conditioning units tailored for cold climates, etc.
  - Air conditioning control using motion sensors, etc.

High energy savings

Energy reduction rate: 65%

- **Energy-creating equipment installed at the new factory**
- Photovoltaic power generation system (670 kW output)
  - Hydrogen fuel cells (30 kW output)

A large amount of power generation throughout the year

- **Use and demonstration of hydrogen energy**

- Use of two types of hydrogen: green hydrogen and by-product hydrogen
- Green hydrogen: Hydrogen produced through a water electrolysis system using solar power generation electricity is stored in hydrogen storage alloys, and used in fuel cells to generate electricity.
- By-product hydrogen: Hydrogen produced as a by-product at a plant in Hokkaido is stored in hydrogen tanks, and used in fuel cells to generate electricity.



New Muroran Factory

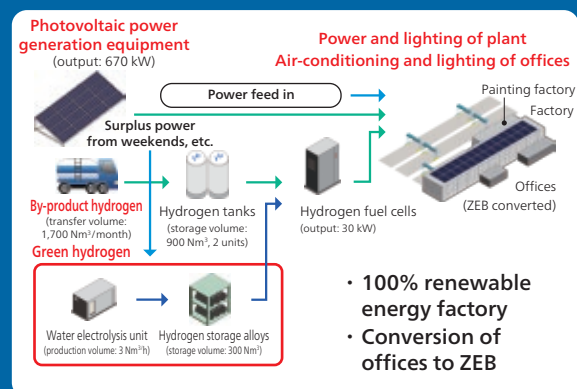


Diagram of energy use at the new factory