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YOKOHAMA REITO CO.,LTD

Environmental impact reduction at Cold storage

FEBRUARY 10, 2016 at TOKYO
HIROJI TAKEDA

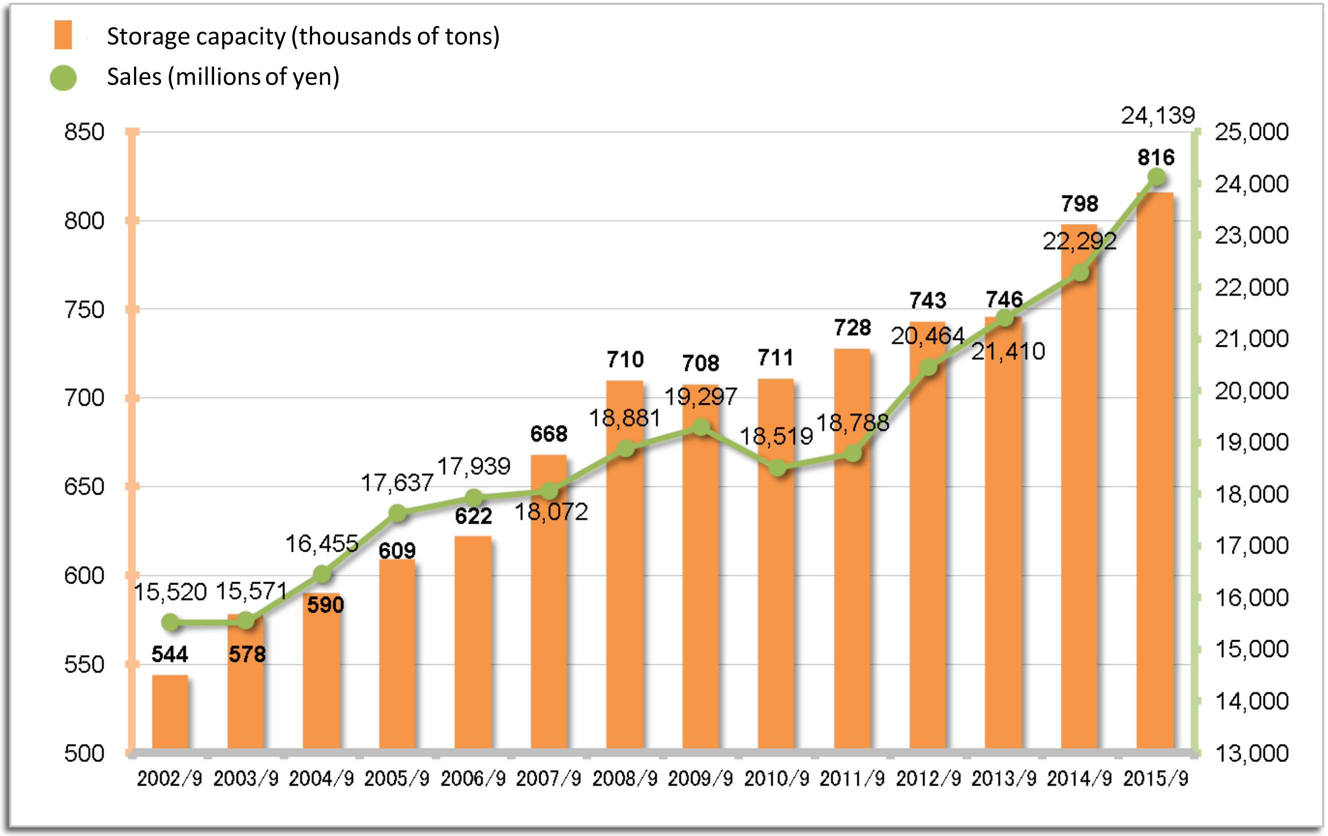
What is Yokohama Reito?

Since its foundation in Yokohama in 1948, Yokorei has been dedicating their business to cold storage facility logistics and food product sales. They currently possess 43 distribution centers and cold storage facilities in Japan, with an overseas location in Thailand, operating as a people-friendly, thing-friendly, environmentally-friendly food distribution expert

The industry's top-class storage capacity

Combining both domestic and overseas facilities, the company boasts approximately 915,000 tons of storage capacity.

Domestic storage capacity



Corporate philosophy

At Yokohama Reito our goal is to be loved by all in the local community as we operate
under the same corporate policy since our inception; the **'company as a public institution of society, with profit as the measure of service'**.

- The service mentioned here consists of three points in our overall business activities;
  customer satisfaction, activities that contribute to local communities, and environmental preservation activities – all areas that help us fulfill our social responsibilities.

It is Yokohama Reito's mission to contribute to the development of society around the world and to enhance our value to society through our business activities.

Company overview

Company	**Yokohama Reito Co., ltd.**
Established	**May 13, 1948**
Representatives	**Toshio Yoshikawa, Chairman and Executive Director** **Toshihiko Nishiyama, President and Representative Director**
Capital funds	**11 billion, 65.92 million yen (As of end of September 2015)**
Employees	**Attached: 1,395** **Individual: 1,059** **(As of end of September 2015)**
Headquarters location	**MinatoMirai Grand Central Tower 7F** **4-6-2 Minatomirai, Nishi-ku** **Yokohama-shi 220-0012**
Business details	**Cold-storage business and normal warehouse business** **Production, sales, and import/export of fishery products** **Production, sales, and import/export of agricultural and livestock products** **Real estate leasing** **Customs clearance** **Freight forwarding and motor truck transportation** **Cafeteria and café management and food supply sales** **Complete incidental services for all of the previous businesses** **(Business objectives noted in the articles of incorporation)**

As of December 2015

Environmental policies

Basic Principles

Yokohama Reito aims to build a deeper relationship of trust with society by operating our distribution business under our corporate philosophy of contributing to society, and carrying out business in a way that takes the global environment into consideration.

Main Environmental Measures

Acquisition of Green Management Certification

We are acquiring Green Management Certification for all 39 cold storage business locations in Japan from Hokkaido to Kagoshima.

Introduction of a photovoltaic power generation system

Aggressive implementation of photovoltaic power generation systems are part of efforts to reduce CO2.

Initiatives to reduce environmental impact

Use of natural coolants and introduction of hybrid cars are part of efforts to reduce environmental impact.

Green management Certification is a means to promote environmentally-contributing management practices (green management), and is granted to businesses who are certified as engaged in excellent environmental efforts above a certain level.

Example of Yumeshima Logistics Center

Yumeshima logistics center has the function of both international port and distribution center logistics. Based on its corporate philosophy of social contribution through business, Yokohama Reito's three main business philosophies are: High Quality Management, Environmentally Conscious Cold Storage Facilities, and Ideal Storage Environment. With these three concepts in mind, Yokohama Reito has chosen and will continue to choose new technologies with environmental consideration for their facilities.

Yumeshima Logistics Center

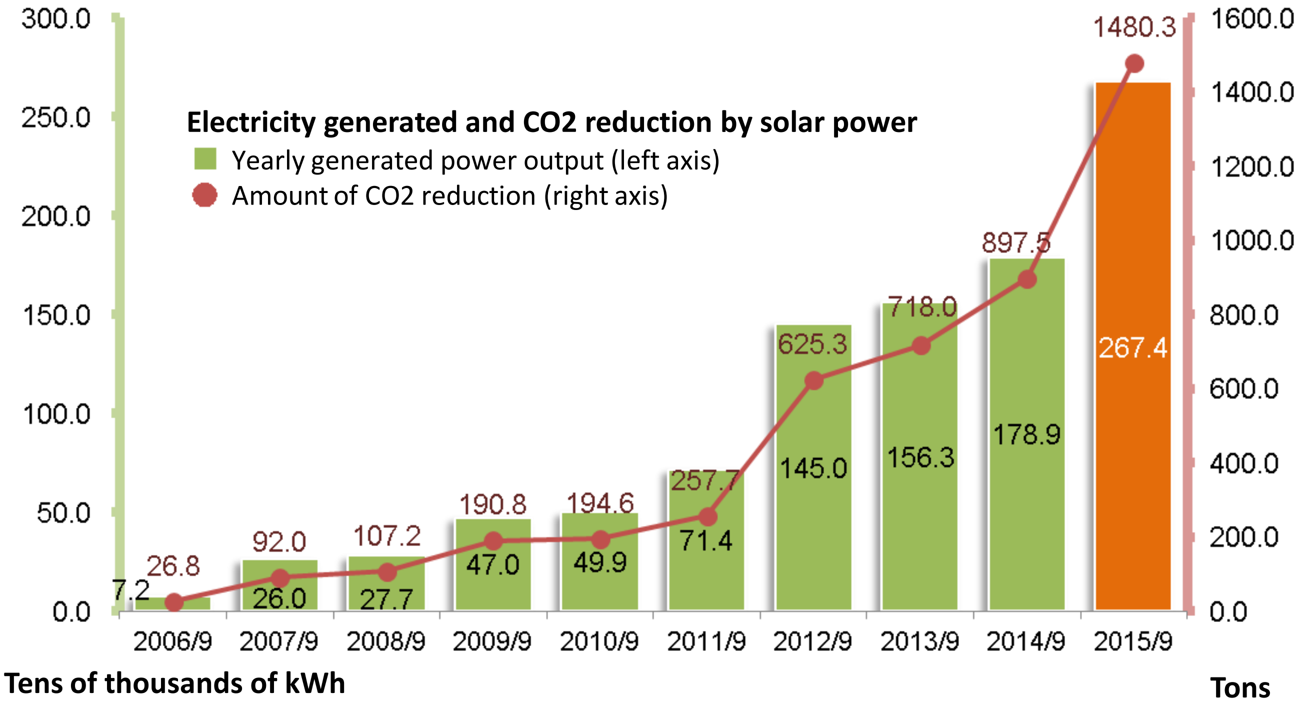
As an environmentally friendly cold storage facility, Yumeshima employs a wide variety of the latest technologies, including the following advances demanded by the times we live in. Not only does it contain **cooling equipment that uses natural coolant**, but also 1. the largest **photovoltaic power generation system** in the industry with a 628 kW output, 2. **BEMS electrical power management**, 3. **LED lighting**, 4. **amorphous transformers**, and 5. the foaming agents in over 99% of the insulation used in cool storage are **molded plates of polystyrene foam which possesses high insulation properties** and contains CFC-free gas.

Cold storage capacity (in tons)	25,773
Facility details	F-class（-25℃、70000m3）, C-class（-10℃～+10℃、2350m3）, photovoltaic power generation system, hybrid desiccant positive pressure-type low-temperature platform, BEMS, ozone sterilization and deodorizing system, electric moving racks, LED lighting in the entire building
Permissions, etc.	Bonded storage location, designated animal quarantine and inspection station, warehouse that issues warehouse receipts, Type 1 freight forwarding business

Environmental measures for cold storage facilities

Introduction of a photovoltaic power generation system

The first system was introduced at the Isehara Logistics Center in 2006, with photovoltaic power generation systems currently operating in nine locations.
The Yumeshima Logistics Center, completed in 2014, is home to the industry’s largest solar panels.



Environmental measures for cold storage facilities

Introduction of high-efficiency LED lighting fixtures

Currently, 37 cold storage facilities are using high-efficiency LED lighting fixtures within the warehouses. In addition to reduced CO2 output, other effects include reduced electrical power consumption.

Environmental measures for cold storage facilities

NewTon

Introduction of the high-efficiency natural cooling NewTon refrigeration system

The NewTon system was selected after comparing four points to determine that it is the best fit with Yokohama Reito’s corporate philosophy. The points were technical proposal details, initial capital cost, operating cost, and 20-year life cycle cost.

Natural Refrigerants

GWP = LESS
(NH3 = 0, CO2 = 1)

ODP = 0

High efficiency

Two NewTonR-6000 units for cold storage, one NewTon C for the dock area, and one Brine application NewTon B for the platform on the main floor are installed.

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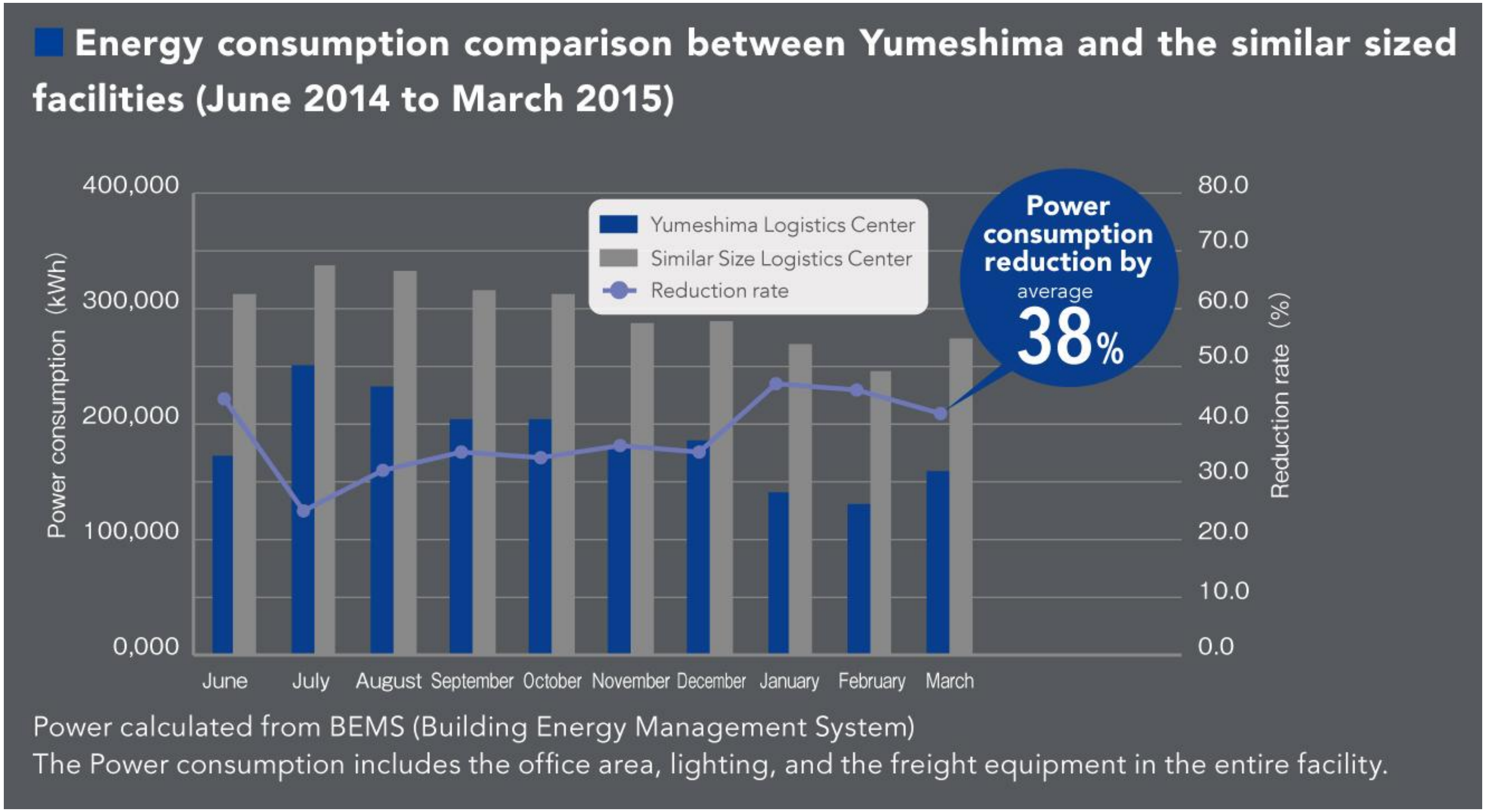
Results after installation



- **Power consumption reduction**: 38% reduced compared with similar size facilities
- **CO2 Emission reduction**
- **Easy to install, self-contained**: Reduces installation time and cost
- **Improved safety**: Semi-hermetic screw compressor and a low ammonia charge reduces the risk of ammonia leak. Also, the ammonia refrigerant charged is contained to the machine room reducing exposure to employee and products. Complete automation, as well as 24 hour remote monitoring, offers a very safe operation.

Construction complete on the Bangpakong Logistics Center 2

In August 2015, Thai Yokorei, Inc. opened the Bangpakon Logistics Center 2 on the grounds of the Bangpakon Logistics Center in Bangpakon county, Chachoengsao.
The roof of the center is home to Thailand’s largest photovoltaic power generation system with an output capacity of 583.1 kW. The facilities use a high-efficiency natural coolant mechanism that employs natural coolants such as ammonia (NH3) and carbon dioxide (CO2), with LED lighting inside the building for an environmentally conscious design.

Name	**Bangpakong Logistics Center 2**
Location	59/1 Moo 12, Bangna-Trad Road, Km. 45 Bangpakong, bangpakong, Chachoengsao 24130 Thailand
Construction/ scale	① Four-floor reinforced concrete structure ② Cold storage capacity: 23,153t F-class: 18,221 tons, fixed temperature: 4,932 tons (0 °C to 20 °C) ③ Main facilities ･High-efficiency natural cooling system ･Photovoltaic power generation system (Power output: 583.1kW) ･Electric moving racks

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Thank you very much for your Attention.