環境未来都市・横浜の都市づくり Urban Development of "FutureCity" Yokohama



Yokohama - Overview

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Our Vision – FutureCity Yokohama





Environment







Economy



Yokohama Smart City Project

■ results (To FY2013) / goal (FY2010~FY2014) CO2 Reduction (39,000ton / 30,000ton) HEMS(Home energy management system) (4,200/4,000) PV (37MW/27MW) EV (2,300/2,000)

Energy Storage SCADA Energy Storage Batteries for Energy Storage Apartment House HEMS **Condominium HEMS Demand-Supply Control** SCADA (Toshiba, Mitsui Fudosan Residential, JX-E) (Tokyo Gas, NTT-F, House HEMS (Toshiba, Hitachi, Meidensha, NEC) (Toshiba) NTT Docomo) (Panasonic) Condominium HEMS **Energy Storage Batteries** (Daikyo-Astage) for Consumers (Sony E, Sharp) House HEMS Collection and Delivery System (Toshiba. (Hitachi, Toshiba) Mitsui Fudosan Residential) HEMS FEMS CEMS (Meidensha, Charging Stations (JX-E, NEC, Tokyo Sumitomo (Toshiba, Accenture) Institute of Technology) Electric Industries) GDC FEMS (Nissan) CEMS Comprehensive BEMS (Toshiba) Smart BEMS (Toshiba, FV Taisei Corp.) Smart BEMS Chargeable and Dischargeable EVs Office Building BEMS (JGC, (Nissan, Hitachi, ORIX, ORIX Auto Corp.) (Toshiba, Marubeni, JGC Information Systems) Mitsubishi Estate, Smart BEMS Mitsui Fudosan) (Meidensha, NEC) Smart BEMS (Shimizu Corp.) BEMS

Yokohama Smart Business Association – Implementation of YSCP



"Virtual Power Plant" Project

Agreement reached: City of Yokohama / TEPCO EP / Toshiba Corp.

Installing storage batteries at Primary &
Junior High School in Yokohama City

To construction of "Virtual Power Plant" in Yokohama City , 3 parties entered into an agreement $(6^{th} July 2016)$





Project Summary

Install storage batteries at the Primary & Junior High Schools within the city, designated as area disaster prevention facilities.

Under normal operation : TEPCO EP uses it for peek demand response / In emergency situation: Yokohama City uses it for disaster prevention measures.



The 6th International Forum on the "FutureCity" Initiative

The 6th International Forum on the "FutureCity" Initiative

Date: 31th Aug. 2017 Place: Pacifico Yokohama Participants: approx. 800 peoples Summary:

- •The Sustainable Development Goals (SDGs) adopted by the UN represent an international consensus for universally appealing and vibrant communities, which is the basic concept of the "FutureCity" Initiative.
- •As a country that will face various challenges before other countries, Japan must boldly take on the challenge of solving these problems. It has a mission to contribute to the world towards the realization of universally appealing and vibrant communities based on the outcomes of those solutions.





Sustainable Development Goals - SDGs



Goal7 Ensure access to affordable, reliable, sustainable and modern energy for all



Domestic :

Utilization of HydrogenInstall of Renewable Energy

International :

 Technical Assistance for Bangkok – using JCM

AFFORDABLE AND CLEAN ENERGY



Install of Renewable Energy



Technical Assistance for Bangkok –using JCM

Goal11 Make cities and human settlements inclusive, safe, resilient and sustainable



Domestic :

 $\boldsymbol{\cdot} \text{Developing}$ retention ponds to control flooding during heavy rain

International :

•Community disaster prevention in Iloilo City, Philippines

·Supporting post-disaster reconstruction in Nepal



Iloilo City Community Disaster Prevention Project



Nepal Post-Disaster Reconstruction Support

Goal 13 Take urgent action to combat climate change and its impacts



Promotion of Low Emission Transportation



Implementation of Energy Management System



Cooperation for "Bangkok Climate Action Plan"

13 CLIMATE ACTION

Domestic :

- •Promotion of Low Emission Transportation
- •Implementation of Energy Management System

International :

•Cooperation for "Bangkok Climate Action Plan"

Yokohama' s International Development Cooperation – Y-PORT

Yokohama Partnership of Resources and Technologies

International technical cooperation based on publicprivate partnership and drawing on the resources and technology of Yokohama

It is essential to provide not simple products but solutions through combining technologies and knowhow of the public and private sectors

Enhancement of international technical cooperation





Thank you for your listening!

ALL WHEN A KING

