ICAP Tokyo Symposium 2017

# Approach to Top-Level Facility (Excellent specific measured facility against global warming)

## 2017.06.14



Today's Work, Tomorrow's Heritage



## SHIMIZU'S PAST, PRESENT, AND FUTURE



#### Today's Work, Tomorrow's Heritage



## **Shimizu Head Office Outline**

- ◆ Built: 2012.05
- Total site area: 2,728m<sup>2</sup>
- ◆ Total floor area : 51,355m<sup>2</sup>
- ◆ Floors: 3 underground levels, 22 above ground levels

#### Special urban renaissance districts, approved by Tokyo City

- "Regional contribution" as a disaster prevention center
- "Global env. contribution" with CO2 emission reduction

#### First community based ISO approval, "Kyobashi Smart-Community"

- ISO22301 for Business continuity management
- ISO50001 for Energy management



Shimizu Head Office (Tokyo)



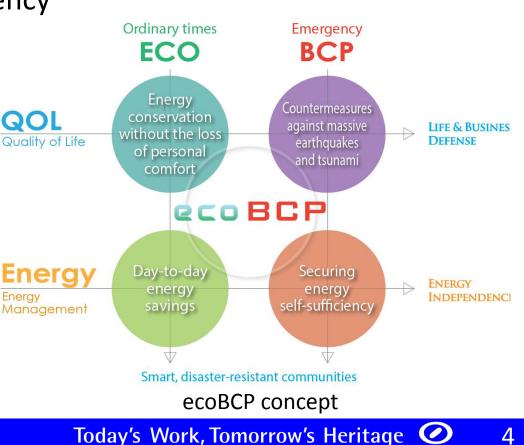
Kyobashi Smart-Community



## **Shimizu Head Office Outline**

Materialized ecoBCP concept after the Great East Japan Earthquake.

- Countermeasures against massive earthquake
- Securing energy self-sufficiency
- Comfortable working env.
- Day-to-day energy savings



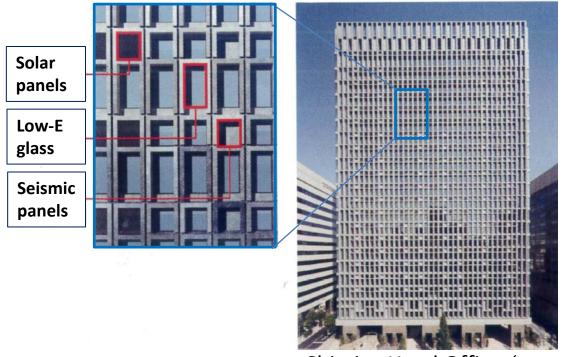
## **Shimizu Head Office Outline**

Office building designed/built/operated toward ZEB (Zero Emission Building) goal

### Tech-1 Hybrid exterior panel system

Pre-stressed concrete seismic panels

Solar panels: 84,000 kWh/yr



Shimizu Head Office (Tokyo)

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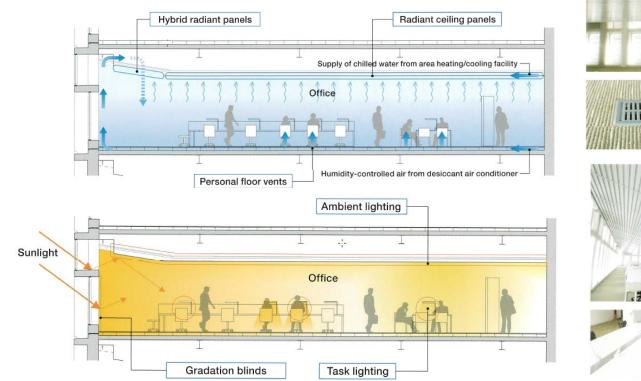
## **Shimizu Head Office Outline**

**Energy saving system with comfort** Tech-2

Air-conditioning with radiant ceiling panels (S-Radi<sup>®</sup> system)

Automatic gradation blinds for ambient lighting

Efficient heat utilization for district heating/cooling







Ambient lighting

Task lighting

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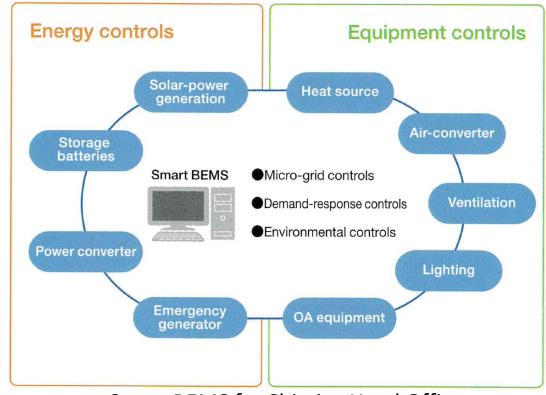
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### **Shimizu Head Office Outline**

#### Tech-3 Effective energy utilization

Smart BEMS (Build. Energy Management System)



Smart BEMS for Shimizu Head Office

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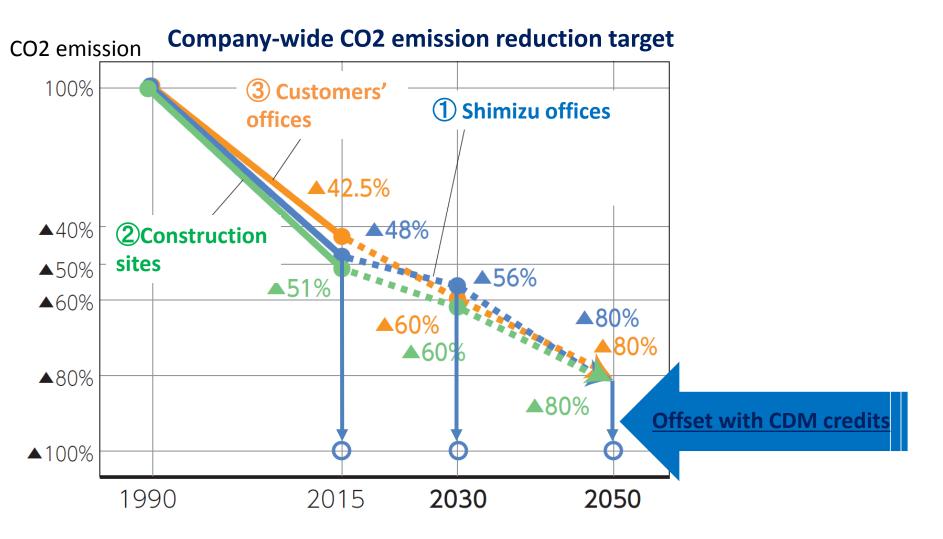
# **Approach for Emission Reductions**

### Carbon neutral of the head-office



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#### Ecology Mission 2030-2050



# **Approach for Emission Reductions**

### **Company-wide offset records, and next steps**

Category		2013		2014	2015	2016	Average (annual)
		1st half	2nd half	2014	2015	2010	
Office	Head office	-	1,345	3,026	3,020	3,058	Offices 13,000 tCO2/y + Construction sites 15,000 tCO2/y
	Branch offices	-	-	7,171	5,952	6,130	
	Construction site offices	-	_	47,872	4,160	3,594	
Construction site	Representing 20 sites	-	-	-	15,234	14,935	
	Total		1,345	58,069	28,366	27,717	28,000 tCO2/y
Keep offset with CO <sub>2</sub> credit							

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