# Osaka Energy Plan for Local Production and Consumption ~Creating a Renewable Energy Society~

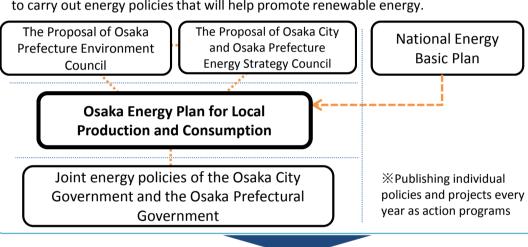
#### **Background**

◆The accident of the Fukushima Daiichi Nuclear Power Station which occurred at the time of the Great East Japan Earthquake, caused a major shortage of electric power. This also had a great impact upon the residents and business operators in Osaka. To overcome the past of solely relying on the national government and major electric power companies, it will be essential for local governments and other public organizations to take a more proactive role in developing energy policies for the future.

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《Building a new energy society》	Until now	From now on
Safety Stability Proper Price	<ul> <li>Dependence on nuclear power</li> <li>Regionally exclusive largescale centralized power system</li> <li>Authorized electric power price</li> </ul>	Reduction of dependence on nuclear power Decentralized power system by diverse power suppliers Transition to competitive power price system where consumers can freely choose suppliers
	price	, ,,

#### **Plan Formation**

◆ The Osaka City Government and Osaka Prefectural Government collaborate together to carry out energy policies that will help promote renewable energy.



#### **Objectives and Time Period**

◆To promote the energy plan for local production and consumption, specific goals will be set and efforts will be made to achieve them by the year 2020.

◆ Period From 2014 to 2020

◆ Objective s

#### (1) Promoting Renewable Energy

With the local characteristics of Osaka in mind and to promote the use of solar power, the aim is to increase an electric power supply of 900,000kW(620,000kW for residence, 280,000kW for non-residence) by the year 2020.

## (2) Controlling Energy Consumption (Transition to Eco-Friendly Lifestyle)

To promote an energy efficient society, the introduction of eco-friendly devices and facilities will help conserve energy.

#### (3) Leveling the Demand and Stabilizing the Supply

Through the use of gas heating and cooling systems, it will help reduce 250,000kW demand of electric power. The introduction of the decentralized power system can help reach the goal of increasing an electric power supply of 350,000kW.

# Development of policies and projects, and their effects (Image)

electric power supply

- · Solar power generation: 900,000kW
- · Decentralized power system (cogeneration system): 300,000kW
- · Waste disposal power generation system: 50,000kW

Reducing electric power

Point

of

- Reducing electric power demand by using gas heating and cooling systems: 200,000kW
- · Reducing electric power demand by using the Building Energy Management System (BEMS): 50,000kW

More than 1.250.000 kW More than 250,000

kW

[Effects in 2020 (Image)] Generating more than 1,500,000 kW

1.500.000kW roughly corresponds to 14%of Osaka's electric power demand in its peak (Summer of 2012).

#### <Promotion of policies and projects>

Short Term (1 - 2 years)

◆ Energy policies and projects with necessity and urgency (e.g. solar power system that utilizes the feed-in tariff)

◆ By reflecting on the citizens' concerns on energy, policies and projects that promote the use of renewable energy will be carried out.

◆ From the viewpoint of new energy industries, promoting energy policies and projects may be small in scale, but the investment in return provides greater advantages.

Mid-to Long Term (3 years and after)

#### Plan Process (Outline)

#### (1) Promoting Renewable Energy

◆ Through the application of the feed-in tariff, we aim to promote solar power and other renewable energy sources.

Solar Power

- ★ Promoting solar power use
- ·Introducing the solar power system in homes and non-residential buildings
- Introducing the solar power system in public facilities, disaster prevention bases, and ponds

Other Renewable Energy

- ★ Establishing small-medium hydroelectric power plants
- •Introducing hydroelectric power plants for waterworks (water supply facilities) and public facilities (dams and rivers)
- ★ Utilizing biomass and waste effectively
- ·Introducing biomass power plants
- ★ Promoting heat utilization
- Promoting geothermal heat pump system use

#### (2) Controlling Energy Consumption

◆ Making the transition to a more eco-friendly lifestyle and business style by implementing the "visualization" of energy consumption, and introducing ecofriendly devices and facilities.

Eco-Friendly Lifestyle and Business Style

- ★Implementing the "visualization" of energy consumption, and promoting eco-friendly efforts
- · Eco-Friendly measures for homes and for small and medium-sized companies
- ★ Promoting education on energy conservation and having interactive seminars Providing advice on energy conservation

#### **Eco-Friendly Devices and Facilities**

- ★ Promoting eco-friendly devices
- Providing incentives by introducing eco-friendly devices
- **Eco-Friendly Homes and Buildings**
- ★Implementing eco-friendly measures to help construct new
- · Constructing more eco-friendly buildings and homes

#### (3) Leveling the Demand and Stabilizing the Supply

◆ Promoting demand response and decentralizing the power system (cogeneration system). When various electric power companies join the electric power market, they can help control the power demand during peak hours and stabilize the electric power supply.

Controlling the peak of power demand

- **★** Making transition to use power during non-peak hours rather than peak hours. Appealing to consumers with a
- marketing mechanism Introducing facilities that are capable
- of controlling the peak hours of electric power use

Stabilizing the Supply

- ★ Promoting a decentralized power system
- Introducing the decentralized power system and battery system
- **★**Creating smart communities
  - Introducing smart communities and smart meters

Promoting various electric power companies to enter the electric

- ★ Setting the stage for new electric power suppliers
- Reforming the electric power market
- ★ Providing an electric power market where consumers can choose their suppliers
- Providing an electric power market where small and medium sized companies can choose their electric power source

Energy

**Suppliers** 

Municipalities

## **Effective Promotion System**

◆To promote adequate energy production and consumption at the local level, the Osaka City Government and Osaka Prefectural Government will collaborate with related parties in the energy field to propose new projects and policies that will address local energy problems.



Partnership Cooperation

**Osaka Smart Energy Center** 

Osaka City Government, Osaka Prefectural Government and Energy Suppliers work together to develop joint energy policies.