

## Outline of the Experimental Study on Offshore Wind Power Generation Systems

### 1. Description

The Study aims to establish the methods for designing, installing, operating and maintaining wind power generation systems in the hostile meteorological and hydrographic conditions in the seas near Japan, and to identify the environmental effects of fixed-type offshore wind power generation facilities.

#### **(1) Development of wind power generation facilities suited to the natural environment of Japan**

Developing Japanese models of offshore wind turbines and platforms that are safe against earthquakes as well as high wind and seas caused by typhoons, yet susceptible to salt damage; verifying and establishing developed technologies by building a fixed-type offshore wind power generation facility.

#### **(2) Establishment of methods for operating and maintaining offshore wind power generation facilities**

Establishing operation and maintenance methods (e.g. those broadly using remote monitoring technologies) suitable for offshore wind power generation facilities, which are less accessible than wind turbines on land.

#### **(3) Environmental impact study**

Studying the impact of offshore wind power generation facilities on marine organisms and birds.

#### **(4) Formulation of design guidelines for offshore wind power generation facilities**

Formulating design guidelines for safe and reliable offshore wind power generation facilities that stipulate methods for design, installation, operation, maintenance, etc.

### **2. Period of study**

From June 2010 (slated) to March 2014

### **3. Location**

About 3 km off the southern coast of Choshi (waters with a depth of approx. 11 m)

\* Near the wind observation tower for the Experimental Study on Offshore Wind Observation Systems

### **4. Project cost (estimated cost before contracting, not including consumption tax)**

Approx. ¥3.33 billion

\* Including about ¥1.11 billion to be paid by TEPCO (about ¥2.22 billion paid by NEDO)

### 5. TEPCO's sections in charge

Civil Engineering and Architecture Technology Group and Offshore Wind Power Generation  
Technology Group, Research and Development Center  
New Energy Planning Group, Construction Department

### 6. Artist's rendering of the facility for the experimental study

