Project for the Promotion of Practical Applications of Tidal Power Generation Technology (in cooperation with the Ministry of Economy, Trade and Industry)

Required amount of money for FY2015: ¥1,000 million (550 million)

Background/Purpose

- Japan has a great potential in the area of marine renewable energy sources, but we have yet to acquire the necessary technology for to practical use.
- Tidal power generation technology has the potential to provide stable power in a sustained manner all-year-round. Given that European countries have already implemented commercial-scale scientific demonstration projects on the matter, we put this technology to practical use and promote the adoption of tidal power generation as early as possible.

Project Scheme

- Outsourcee: Private organization
- Implementation period: 5 years (2014 - 2018)

General Information on the Project

Project Overview

- We will develop a tidal power generation system that is rid of adverse impact on fisheries or marine environments and is a viable candidate for installation on Japanese waters. Moreover, we will test a commercial-scale tidal power generation system that is mutualistic with fisheries. And then, we will establish tidal power generation technology and a power generation system, as well as the necessary infrastructure for both, with the goal of adopting tidal power generation in Japan.

Expected Benefits

- Early practical application of tidal power generation technology will be achieved in Japan through consistent project processes from development through to testing.
- Greater fossil energy savings will be realized through the adoption of tidal power generation, and an independent and distributed-type low-carbon society will be constructed in the areas that use tidal power generation.

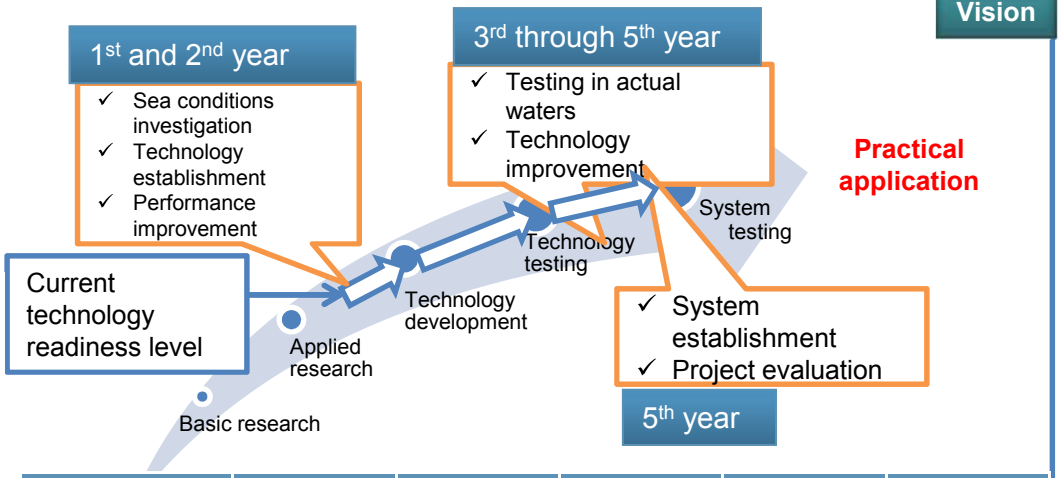
World's High Expectations for Tidal Power Generation Technology Based on Renewable Marine Energy

- ❖ Unlike photovoltaic generation technology, tidal power generation technology has the potential to provide stable power in a sustained manner all-year-round thanks to constant tidal forces that have minimal impact on the environment.
- ❖ Japan is replete with optimal coastal waters that can house such structures, such as our many straits.
- ❖ European countries have already been developing and testing tidal power generation technology ahead of Japan. We intend to expedite our practical adoption of tidal power generation technology.
  - ✓ Tidal power generation technology and maintenance techniques suitable for Japan's sea conditions
  - ✓ Power generation system and infrastructure that are mutualistic with fisheries
  - ✓ Reduction in environmental load and establishment of environmental assessment methods

Tidal power generation

Generate stable power
✖
Maintain mutualism with fisheries
✖
Reduce environmental load
=
Accelerate system adoption

Vision



Project plan	2014	2015	2016	2017	2018
Technology development	→	→	→		
Environmental impact investigation		→	→	→	
Technology testing				→	→
Project evaluation					→