Outline of NGCPV Project

【Background】
2008.6: The agreement was reached at a ministerial level* to promote EU-Japan cooperation in the field of energy-related technologies.
  *the Minister of Economy, Trade and Industry of Japan and the EU Commissioner for Science and Research
2009.9: The agreement of coordinated call for collaborative project of CPV

【Purpose】
- address climate change and enhance energy security
- to develop concentrator photovoltaic cells aiming to achieve a cell conversion efficiency of more than 45%

【Period and Budget】
2011.6.1〜2014.11 (42months)
Japan : 650 million Yen (about 6.2 million Euro)
EU : 5million Euro (about 525 million Yen)
Scheme of NGCPV Project

**METI**

**NEDO**

**European Commission**

**Coordinated Projects**

**Principal researcher**

- Professor Masafumi Yamaguchi
  (Toyota Technological Institute)
- Toyota Technological Institute
- The University of Tokyo
- National Institute of Advanced Industrial Science and Technology
- Sharp Corporation
- Daido Steel Co., Ltd.

**Principal researcher**

- Professor Antonio Luque
  (Technical University of Madrid)
- Technical University of Madrid (Spain)
- Fraunhofer Institute for Solar Energy Systems (FhG–ISE) (Germany)
- Imperial College London (United Kingdom)
- Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) (Italy)
- BSQ Solar, SL (Spain)
- PSE AG (Germany)
- French National Institute for Solar Energy (CEA–INES) (France)
Positioning of NGCPV in PV R&D Roadmap

<table>
<thead>
<tr>
<th>Target (completion of development)</th>
<th>2010 or later</th>
<th>2020 (2017)</th>
<th>2030 (2025)</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power generation cost</td>
<td>Equivalent to household electric rates (¥23/kWh)</td>
<td>Equivalent to commercial electric rates (¥14/kWh)</td>
<td>Equivalent to power generation costs (¥7/kWh)</td>
<td>Used as general power source (less than ¥7/kWh)</td>
</tr>
</tbody>
</table>

Source: NEDO PV R&D Roadmap (PV2030+), 2009
Expectation of NGCPV Project

• This joint project is the most important project since it is thought to be the core of “R&D on Innovative Solar Cells” program by NEDO.

• We aim to cause “innovation” in the technology development of PV through this project, and to make PV a main energy source.

• CPV technology is expected to have the biggest potential to realize high energy conversion efficiency among the other PV technologies.

• We will create the most advanced PV technology in the world with you, highest-level researchers from Europe and Japan.

• With study and successful result from this project, we can stimulate the development of the PV industry, and can also solve the current energy problems and the global warming issue.