

## Mission on photovoltaic and solar cell technology


**E**nergy demand continues to increase worldwide with burgeoning populations, dynamic economic growth, and advances in technology. Finite reserves of fossil fuels and greater environmental awareness require innovative solutions to meet energy demand now and in the future. Photovoltaic and solar cell technology is one area where substantial progress is expected. Photovoltaic panels convert sunlight into direct-current electricity, making them particularly suitable for power generation in rural or isolated equatorial regions. Developed countries now have the majority of installed photovoltaic/solar cell capacity, meaning that the Asia-Pacific offers exponential growth opportunities for the industry.

Under a special cash grant from the Government of Japan, the APO arranged an observational study mission on Photovoltaic and Solar Cell Technology in Tokyo and Kitakyushu, 14–18 October. Nineteen high-ranking government officials, top managers from associations and private companies, and academics responsible for promoting the technology had a tightly packed schedule of presentations and visits to Kitakyushu Municipal Office, Kitakyushu Smart Community, Townsman Solar Power Station, Choshu Industry Co., Ltd., and Hibikinada Solar Power Station, as well as the annual Eco-Technology Exhibition and Renewable Energy Advanced Technology Exhibition 2013.

Experts from Japan and Singapore stressed that solar photovoltaic systems are sustainable and, after hydro and wind power, the third most important form of renewable energy in terms of globally installed capacity. More than 100 countries use solar photovoltaics, and many including Japan offer subsidies for organizations and individuals installing the systems. Associate Professor Mayumi Matsumoto of the University of Tokyo, one of

the mission resource persons, noted that in 2010 Japan had the world's third-largest installed photovoltaic capacity and is seeing increasing "solar sharing" among municipalities and even corporations, a cost-effective model that could be adopted by other APO members.

Participant P.P.K. Wijetunge, Head (Outreach & Capacity Development), Sri Lanka Sustainable Energy Authority, commented that future projects on the topic should focus on energy-efficiency measures. After evaluating the site visits highly, Muhammad Ahsin Sidqi, General Manager, Tanjung Priok Electric Power Generating Unit, PT Indonesia Power, planned to "initiate a rooftop photovoltaic project as a model" after the mission and "produce a guidebook for green power plants featuring photovoltaics." Others had similar ideas for creating multiplier effects in their organizations.

This mission attracted media attention in Japan, with six news organizations contacting the Secretariat for details, including the national *Nihon Keizai Shimbun* and two broadcasters. Representatives of five attended parts of the program. 



*Participants observing photovoltaic system operations at Townsman Solar Power. Photos courtesy of JPC.*