

# EGNRET 2008-2009 Projects

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# USA Project 1: APEC 21st Century Renewable Energy Development Initiative (Collaborative VIII): Workshop on Recent Advances in Utility Based Financial Mechanisms that Support Renewable Energy and Energy Efficiency (EWG 02/2007 )

- ▶ The objective of this project is to provide APEC decision makers with recent advances in utility based financial mechanisms that support renewable energy and energy efficiency.
- ▶ The types of programs to be reviewed included advanced renewable energy tariffs, renewable energy feed-in tariffs, feed laws, minimum price standards, minimum price systems, fixed price systems, standard offer contracts, renewable energy premiums, and renewable energy bonus payments.
- ▶ Status: Workshop held March 30-April 1, 2009. Final report submitted May 2009.



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# USA Project 2: APEC 21st Century Renewable Energy Development Initiative (Collaborative VI): Best Practices in New and Renewable Energy Technologies in Urban Areas in the APEC Region (EWG 04/2008 )

- ▶ It has been estimated that 75% of the world energy is consumed in cities. APEC, as home to many of the world's most dynamic and fastest growing cities, could set an example of how to best use new and emerging technologies to reduce energy consumption while maintaining economic growth.
- ▶ This project will highlight best practices in the use of new and renewable energy and energy efficient technology based systems as they have been applied in APEC cities. Best practices will include not only specific technology application such as building integrated photovoltaics (BIPV) but also innovated renewable energy purchasing policies being implemented in APEC urban areas. The project report will include the development of a city energy roadmap that would help guide further cooperation in the area of clean and efficient urban energy systems.



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# Best Practices in New and Renewable Energy Technologies in Urban Areas in the APEC Region (2)

- ▶ **1. Introduction**
- ▶ **1.1 Urban Energy Consumption in APEC Member Economies**
- ▶ **2. Residential Sector Case Studies**
- ▶ **2.1 People's Republic of China – Solar Water Heating and Lighting**
- ▶ **2.2 Canada - GeoExchange in Residential Buildings**
- ▶ **2.3 Malaysia Building Integrated Photovoltaic Technology Application Project**
- ▶ **3. Commercial Sector Case Studies**
- ▶ **3.1 Australia – Queen Victoria Solar Energy Market**
- ▶ **3.2 United States – Solar PV in Wal-Mart Retail Stores**
- ▶ **3.3 Chinese Taipei's Green Stadium**
- ▶ **3.4 Singapore – Solar Capacity Scheme**



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# Best Practices in New and Renewable Energy Technologies in Urban Areas in the APEC Region (3)

- ▶ 4. Industrial Sector Case Studies
  - 4.1 Thailand – Bagasse-Fired Cogeneration Plant
  - 4.2 People’s Republic of China: Large Scale and Industrial Biogas Program
- 5. Utility Sector Case Studies
  - 5.1 United States – La Ola Solar Farm
  - 5.2 Chinese Taipei – Changbin and Taichung Wind Farms
- 6. Emerging New & Renewable Energy Applications & Technologies in APEC
  - 6.1 Offshore Wind
  - 6.2 Concentrating Solar Power
  - 6.3 Smart-Grid Technology: Google’s PowerMeter
  - 6.4 Sustainable Cities (Eco-cities)



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## USA Project 3: Using Smart Grids to Enhance Use of Energy Efficiency and Renewable Energy Technologies (EWG 01/2009S)

- ▶ The project will examine the status and potential, within APEC economies, of smart grid technologies to enhance the use of renewable energy and energy efficient buildings, appliances and equipment. Smart grids integrate technologies to improve the management of the grid itself, energy efficiency and renewable energy technologies “behind the customer meter” (including “smart buildings”), and intelligent controls to link the grid with customers in a more efficient and seamless fashion.
- ▶ The report will focus on APEC economies and include a survey of how smart grid technologies and practices have been used to enable new products and services, optimize the use of power grids, allow greater use of renewable energy options, and encourage greater demand-side efficiency response in APEC economies.
- ▶ A follow on workshop will take place to examine findings of the study and lay a path forward for future progress in these areas.



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