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APEC Energy Overview

***APEC Workshop on Grid Integration of
Renewable Energy***

January 12-15, 2009

Lanai, Hawaii USA

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What is APEC?

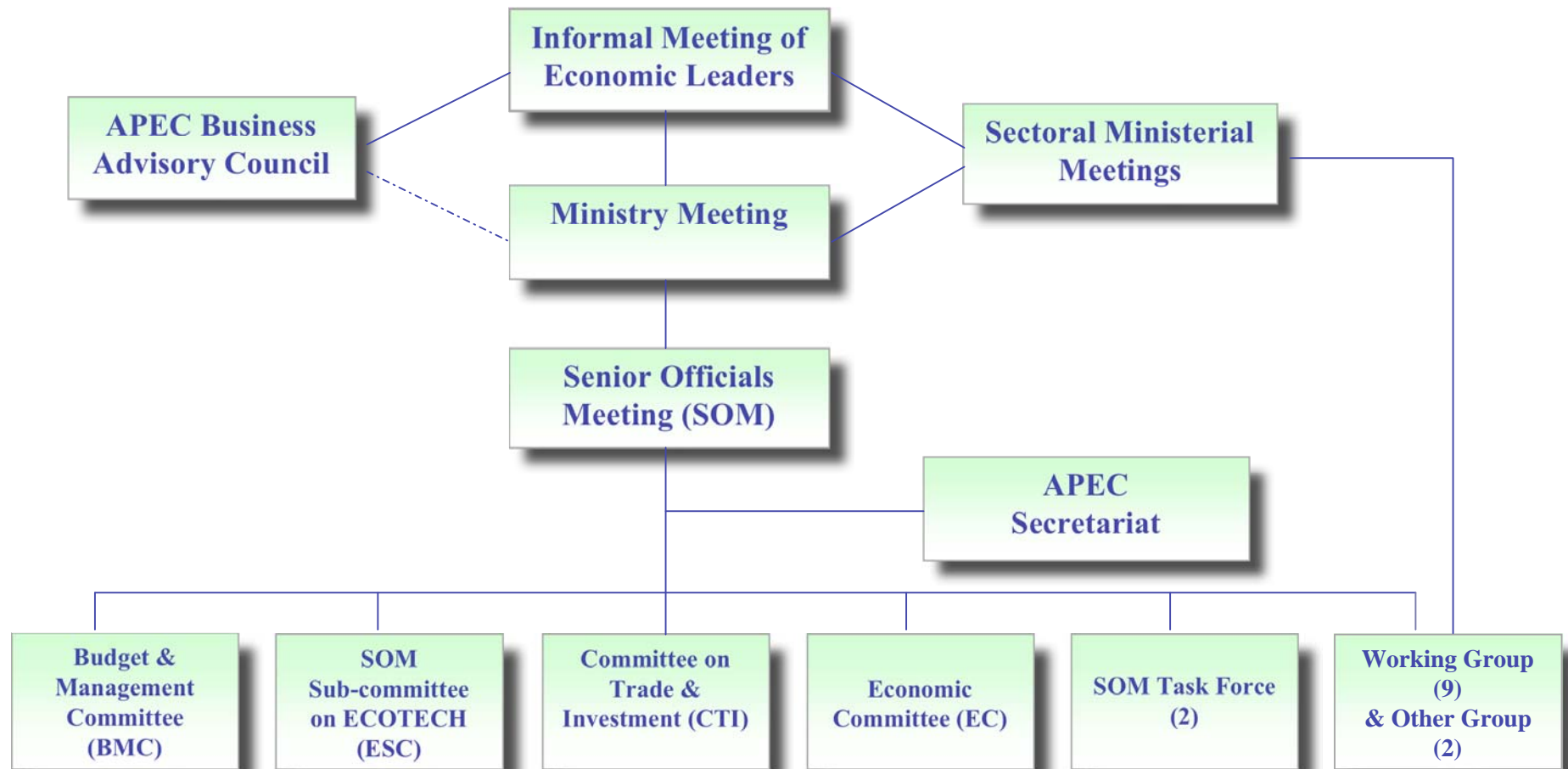
- Asia-Pacific Economic Cooperation (APEC) was created in 1989
- Objective: Promote trade liberalization, trade facilitation and technical assistance
- APEC Economies account for more than one third of the world's population, 60% of world GNP and 50% of world trade
- Implements its activities through 11 working groups including the Energy Working Group

(<http://www.apec.org>)

APEC Member Economies span the Pacific

- Australia
- Brunei Darussalam
- Canada
- Chile
- Peoples Republic of China
- Hong Kong China
- Indonesia
- Japan
- Republic of Korea
- Malaysia
- Mexico
- New Zealand
- Papua New Guinea
- Peru
- Republic of the Philippines
- Russia
- Singapore
- Chinese Taipei
- Thailand
- United States
- Vietnam

Asia Pacific Economic Cooperation



APEC Energy Working Group (EWG)

- The EWG was launched in 1990
- The EWG seeks to maximize the energy sector's contribution to the region's economic and social well-being, while mitigating the environmental effects of energy supply and use
- Australia has been the EWG Lead Shepherd since its inception
- The Energy Security Initiative (ESI) is the principal mechanism through which the EWG addresses the short and long term energy security challenges in APEC in a sustainable manner
- The APEC Energy Ministers (EMM8) last met in Darwin, Australia in September 2007 under the theme “Strengthening our Community, Building a Sustainable Future”

(www.ewg.apec.org)

The Energy Working Group is supported by 7 sub-fora groups

- Expert Group on Clean Fossil Energy (EGCFE) – Chair: USA
(www.egcfe.ewg.apec.org)
- Expert Group on Energy Efficiency & Conservation (EGEEC) – Chair: New Zealand (www.egeec.apec.org)
- Expert Group on Energy Data & Analysis (EGEDA) – Chair: Japan (www.iecej.or.jp/egeda/)
- Expert Group on New and Renewable Energy Technologies (EGNRET) – Chair: USA (www.egnret.ewg.apec.org)
- APEC Biofuels Task Force- Chair: USA
(www.biofuels.apec.org)
- Asia Pacific Research Center (APEREC)
(www.iecej.or.jp/aperc/)
- Energy Business Network- Chair: New Zealand
(www.ewg.apec.org)

Projects are conducted by writing proposal to the APEC Secretariat in Singapore

- APEC funds about \$8 million/year of projects across all working groups
- In 2008, 120 projects were submitted for APEC support with 32 being from the Energy Working Group
- Proposals go to one of three funds
 - APEC Operational Account
 - *The most general fund used to address APEC priorities*
 - APEC Support Fund
 - *Directed at capacity building in development APEC economies*
 - APEC Trade Investment and Liberalization Fund (TILF)
 - *Donated by Japan, and directed at projects directly related to trade, such a equipment standards*

The EWG Secretariat has led the development of comprehensive project overview reports

- Overview of APEC Energy Working Group Projects, April 15, 2007*
 - Identifies and categorizes 250 EWG projects conducted since 1992
- Overview of APEC Energy Working Group Projects
Stage 2: Project Outcomes
Report 1: Energy Efficiency and Conservation, Energy Data and Analysis and Promoting Energy Trade and Investment (May 16, 2008)*
- Overview of APEC Energy Working Group Projects: Stage 3, is the subject of a current EWG project proposal and will look at project outcomes for clean fossil energy and new and renewable energy technologies including alternative transport fuels

*Available from: <http://www.ewg.apec.org>

The APEC Renewable Energy Expert Group's Activities are Diverse and Complementary

- Lead and work with EWG major initiatives
 - APEC 21st Century Renewable Energy Development Initiative
 - EWG led Energy Security Initiative (2001)
 - Ministerial Level Financing Initiative (2004)
 - Ministerial Level Hydrogen Initiative (2004)
 - Ministerial Level Biofuels Initiative (2006)
- Organize workshops
- Conduct research projects
 - 43 have been completed since 1992
 - 7 will be implemented in 2008-2009

Current APEC EGNRET Projects (1)

- APEC 21st Century Renewable Energy Development Initiative (Collaborative I): Workshop on Best Practices in Energy Efficiency and Renewable Energy in Commercial Buildings (EWG 02/2007A) Mexico
- 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) USA
- APEC 21st Century Renewable Energy Development Initiative (Collaborative IX): Alternative Transport Fuels Policy Options for APEC Economies (EWG 04/2007A) New Zealand
- APEC 21st Century Renewable Energy Development Initiative (Collaborative VI): Successful Business Models for New and Renewable Energy Technology implementation in APEC Economies (EWG 03/2008) New Zealand

Current APEC EGNRET Projects (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) USA
- APEC 21st Century Renewable Energy Development Initiative (Collaborative IX) : Workshop and Report on Implications of Bio-refineries for Energy and Trade in the APEC Region (EWG 05/2008A) Chinese Taipei
- Addressing grid-interconnection issues in order to maximize the utilization of new and renewable energy sources (EWG 02/2009) Japan
- 2008 APEC Photovoltaic Conference (EWG Self funded) Chinese Taipei, October 7-8, 2008 (<http://www.apecpv.itri.org.tw>)

APEC EWG Grid/ Renewables next steps

- Link the results of the current workshop into the Japanese-led project *Addressing grid-interconnection issues in order to maximize the utilization of new and renewable energy sources (EWG 02/2009)*
- Collaborate with Chinese Taipei on their follow-up project (APEC 21st Century Renewable Energy Development Initiative (Collaborative Vi) : APEC PV Collaborative Mechanism Study and Workshop) through EGNRET/EWG to the *2008 Photovoltaic Conference*
- Propose an additional project for late 2009 consideration based on current grid/renewables related project conclusions

Thank you for your attention!

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