



APEC 21st Century Renewable Energy Development Initiative

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APEC 21st Century Renewable Energy Development Initiative

- Launched in May 2000
- Launched by the United States at the 4th APEC Energy Ministers meeting
- Developed within the EGNRET
- A Multi-Year Work Program
- Purpose: To advance the use of renewable energy for sustainable economic development and growth of the APEC region.



The Initiatives' Activities

- Survey of APEC Member Economies' Renewable-Energy-Based Priority Needs and Issues Relating to Sustainable Development (November 2000)
- APEC Private Sector Renewable Energy Forum (March 2001)



Survey of APEC Member Economies

- The 7 page survey was completed by 15 economies
 - A detailed synthesis of the results will be available this April.
 - The full surveys are available at:
<http://www.apecnetwork.org>
- Sustainable development priorities and goals:
 - Developed: transportation & air pollution reduction.
 - Developing: rural development & electrification, poverty alleviation and education



Survey of APEC Member Economies (2)

- Renewable energy technology utilization:
 - Developed: more advanced, larger in scale, grid-connected.
 - Developing: small scale, task specific, off-grid.
- Identified needs and barriers:
 - Developed: exiting fossil fuel infrastructure.
 - Developing: financial challenges.



Multi-Year Work Plans Were Developed for 8 Collaboratives

- A clear description of the proposed collaborations and potential projects within each collaboration
- Purpose and objectives
- Suggested implementation plan and time horizon
- Methodology for obtaining private-sector and NGO participation
- Deliverables
- Estimated Costs



Collaborative I: Stakeholders Dialogues, Outreach Forums and Symposiums: Lead Economy-USA

The collaborative links together the various outreach activities of the Expert Group on New and Renewable Energy Technologies which are associated with bringing renewable energy information to the economic leaders, energy ministers, and their staffs. The collaborative will include the facilitation of stakeholder dialogues, outreach forums, and renewable energy related symposiums.



Collaborative I Activities

- Private Sector Renewable Energy Forum
- Synthesis of 21st Century APEC Member Survey
- APEC 2002 New and Renewable Energy Fair
- Private Sector Renewable Energy Forum II
- Background Document and Vision on the Use and Benefits of Renewable Energy in the APEC Region
- APEC Private-Sector Summit on Market-Based Sustainable Development (proposed)



Collaborative II: Micro-Business Development: Lead Economy-USA

This collaborative fosters the development of micro-enterprise activity using renewable energy technologies in rural and remote regions of APEC economies. The collaborative uses technical and business expertise within specific APEC economies to identify viable micro-enterprise activities that create income-generation opportunities that raise the standard of living of rural populations, and is self-replicated in other communities.



Collaborative II Activities

- Greenstar Micro-Enterprise Project Combining Solar Power and Internet Connectivity for Sustainable Development (EWG-SF02-5)
- Greenstar Micro-Enterprise Project Phase 2--Replicating Combining Solar Power and Internet Connectivity Concept for Sustainable Development
- Renewable Energy for Microenterprise



Collaborative III: Renewable-Energy Training and Certification Network: Australia

The collaborative project involves the identification of currently available renewable energy training and certification systems within member economies; an assessment of the needs of member economies for qualified staff to plan, design, install, operate and maintain renewable energy systems; an assessment of the gap between currently available training and current needs and an assessment of how training resources may be allocated to better meet the needs of member countries.



Collaborative III Activities

- Training and Accreditation Needs and Capabilities Study (EWG-04/2002)
 - Analysis of Needs Assessment
 - Identification of Available Training Resources
 - Bridging the Skills Gaps
 - Training Resource Allocation
- Development and Implementation of a System for Accrediting Renewable Energy Training



Collaborative IV: Renewable-Energy Standards: Lead Economy-China

The objectives of this project are to (1) review and document available standards for renewable energy systems for (a) off-grid applications, including mini-grids and stand-alone systems, and (b) grid-interactive applications, (2) categorize according to types of standards (e.g. components, systems, interconnections, safety), and (3) prepare harmonized/synthesized proposed standards for APEC economies.



Collaborative IV Activities

- Adoption of Renewable Energy Standards (EWG-01/2002T)
- APEC 21st Century Renewable Energy Development Initiative (Collaborative IV): Adoption of Renewable Energy Standards Phase II—Final Groundwork



Collaborative V: Distributed Resources: Lead Economy-New Zealand

The purpose of the Distributed Energy Resources (DER) Collaborative is to support the development of partnerships that will facilitate the exchange of information enabling greater investment in DER in the region.

1. Develop the business case for DER
2. Demonstrate DER technologies
3. Exchange information supporting DER
4. Study DER standards
5. Explore innovative financing mechanisms for DER.



Collaborative V Activities

- (Collaborative VIII): Building and Developing an APEC Renewable-Energy Collaboratives Projects Integrator (APEC-CPI)
- (Collaborative VI): Workshop on advances in electricity storage in support of distributed renewable energy based systems



Collaborative VI: Renewable-Energy Technology Applications (USA)

The objective of this collaborative is to identify and demonstrate the potential applications of renewable energy technologies in the APEC region. The collaborative also aims to set up a database on renewable energy technologies, applications and best practices, and to hold a workshop regularly for information exchanges.



Collaborative VI Activities

- Monitoring and Assessing the Design, Operation and Performance of an Ocean Thermal Energy Conversion
- Workshop on advances in electricity storage in support of distributed renewable energy based systems
- APEC 21st Century Renewable Energy Development Initiative (Collaborative VI): USA Development of a Sourcebook of Hydrogen Codes and Standards for APEC Member Economies
- APEC 21st Century Renewable Energy Development Initiative (Collaborative VI): Workshop on Advances in Clean Transportation Fuels (proposed)



Collaborative VII: Web-Based Renewable Energy Information Dissemination: New Zealand

The objective of this collaborative is to provide news and information to a wide range of targets within APEC economies on a range of renewable energy applications. These data will validate the feasible applications of renewable energy technologies and provide complete information on the "how-when-where" for interested parties. This will be provided via an internet site that offers information on selected aspects of RENEWABLE ENERGY development in APEC economies. We have developed a first draft of a shell which is posted at:



Collaborative VII Activities

- The deliverable is information contained on a web portal that is timely and relevant and value-added and flexible

APEC-CPI has been developed
<http://www.apec-cpi.com>



Collaborative VIII: Financing: Lead Economy-Mexico

The objective of this collaborative is to provide a roadmap in the form of a set of guides, tools and databases available through a website that will facilitate financing of renewable energy projects in the APEC region through existing international commercial and multi-lateral financing mechanisms.



Collaborative VIII Activities

- Financial roadmap for the APEC Region
- Building and Developing an APEC Renewable-Energy Collaboratives Projects Integrator (APEC-CPI)
- APEC 21st Century Renewable Energy Development Initiative (Collaborative VIII): Financial Roadmap for the APEC Region
- Financing Renewable Energy Workshop in Hawaii, May 2004
- Energy Investment Report: Facilitating Energy Investment in the APEC Region, submitted to EM6
- Participate in Energy Efficiency and Renewable Energy financing task force created at EWG28.



Collaborative IX: Alternative Transport Fuels

Lead: New Zealand

- Strawman deliverable: EGNRET Alternative Fuels Sourcebook
 - Timeframe: short, med, long term
 - Stage of commercial development (bench, pilot, commercial)
 - Availability across APEC region
 - Apparent economies of scale
 - Infrastructure requirement
 - Environmental implications