

USA Project update

EGNRET-52
Hong Kong, China
March 20-22, 2019

EWG 10 2018A – Low Emissions Development (LED)

Strategies: Supporting the Transition to Energy Efficient, Electric Transport Systems

- The project is led by USDOE's National Renewable Energy Laboratory.
- Assessments of renewable resource potentials on islands (including those in APEC economies) consistently show their potentials are significantly larger than their utilization, and that further utilization would result in more secure, reliable and affordable electricity than that of fossil fuel-based generation.
- This project will profile 3 APEC islands and design a roadmap for how they can integrate the transport and electricity sectors in a way that creates the highest degree of sustainable development benefits.
- The three islands will get in-depth analysis of their LED strategy
 - Alternative technology development scenarios,
 - Evaluation of SDG impacts of alternative scenarios;
 - An assessment of their financial landscape and existing investment environment;
 - A policy toolkit that they can further explore and select from to achieve the goals and targets they have set.
- Status: The project RFP has been issued and proposals are being evaluated.

EWG 02 2018S – Ethanol's Role in APEC Energy Access (Energy Resiliency Task Force)

- The project is led by Pacific Northwest National Laboratory and the U.S. Grains Council.
- This project supports a workshop focused on the important role that increased ethanol use holds for improving energy access in member economies and in supporting environmental and human health benefits.
- The goal of the workshop is to further the dialogue around the expanded use of ethanol as member economies seek to improve energy access and to meet APEC's ambitious 2030 goals of doubling the share of renewables in their energy mix.
- This workshop builds off previous work completed by the Energy Working Group in developing a roadmap for best practices in developing an ethanol industry in member economies, and individual economy case studies of challenges and opportunities of developing ethanol policies (EWG 12 2015A).
- This workshop will foster collaboration across relevant APEC ministry officials and industry representatives to consider and share the benefits and opportunities ethanol holds for achieving energy access for APEC member economies.
- Status: The project is currently on hold.

EWG 04 2018S – APEC Regional Study on Financing and Investment for Grid-Connected Wind and Solar (1)

The project was led by the USDOE Office of International Affairs and U.S. APEC Technical Assistance to Advance Regional Integration and coupled to EWG 04 2018A, a workshop to facilitate the exchange of best renewable energy finance practices.

- The report highlights a number of success stories from both within APEC and outside of APEC, and then provides recommendations categorized by type of barrier and enabler: technical, economic, regulatory and institutional.
- The first technical recommendation (T1) is to conduct an in-depth solar and wind resource assessment in order to establish specific locations that are suitable.
- The second technical recommendation (T2) is to conduct an in-depth grid assessment and make the necessary investments to enable integration of grid-connected wind and solar generation.
- The first economic recommendation (E1) is to organize electric markets to allow for adequate renewable tariffs that can provide the necessary support for renewables investments by reflecting market rates, social and environmental objectives, and include the energy services that new technologies require and can provide.
- The second economic recommendation (E2) is to use competitive auctions with bankable power purchase agreement (PPAs) to ensure sustainable developments for both investors and customers. of their LED strategy
- Status: The final report was completed December 2018.

EWG 04 2018S – APEC Regional Study on Financing and Investment for Grid-Connected Wind and Solar (2)

- Regulatory recommendations consist of (P1) instituting reforms allowing for independent power producers (IPPs), and
- (P2) ensuring that government agencies of all types can work together and jointly support and facilitate renewable energy targets or programs.
- Institutional recommendations include (I1) enlisting the formal participation of the local academic and business (including banking) sectors to build and use available financial technical expertise and experience.
- (I2) is to enlist the formal participation of international institutions to kick-start, as necessary, domestic institutional development.
- Status: Workshop was held November 16-17, 2018 in Singapore and completion report was circulated to the EWG.

EWG 04 2018A APEC Workshop on Best Practices for Attracting Renewable Energy Financing and Investment

- The project was led by the USDOE Office of International Affairs and U.S. APEC Technical Assistance to Advance Regional Integration.
- The workshop built the capacity of APEC government officials involved in renewable energy projects, particularly in developing economies, and provided an opportunity for effective engagement with the private sector, financing organizations, and other stakeholders to learn how to design business models for the establishment of new renewable energy projects in APEC.
- The key findings as discussed in reference to the corresponding study include that deciding on the perfect balance of costing and attracting investment for renewable energy development can be a considerable challenge.
- Some economies, such as Peru and Mexico, are using market tools like FiTs, renewable energy targets, auctions, and bankable PPAs to enable renewable energy investments.
- Other case studies such as the Eastern Indonesia Renewable Energy Project and the Bac Lieu Near-Shore Wind Farm in Viet Nam show how economies can successfully overcome economic barriers.
- For many APEC economies, wind and solar investments have been greatly facilitated through strong, consistent government support via favorable energy policies, active engagement of non-energy government agencies, and well as well-designed, open electricity markets.
- Status: Workshop was held November 16-17, 2018 in Singapore and completion report was circulated to the EWG.

EWG 02 2017A Trainings in Renewable Energy Best-Practices: Procurement, Contracts, Lifecycle Cost Analyses, and Risk Mitigation to Mobilize Private Investment (1)

- The project was led by the USDOE Office of International Affairs and U.S. APEC Technical Assistance to Advance Regional Integration
- The purpose of this joint workshop was twofold:
 - 1) to provide decision-makers with the tools to assess environmental and health impacts as part of life-cycle costs when considering long-term energy investments, and
 - 2) to build capacity for procuring large-scale renewable energy power plants and attracting investments to fund projects.
- A 5-day workshop held October 16-20, 2017 in Kuala Lumpur, Malaysia. The workshop convened representatives from 10 economies and expert organizations, representing energy ministries, electricity utilities, energy regulators, research institutions, or multinational organizations.
- Status: The project report was published December 2018.

<https://www.apec.org/Publications/2018/12/Trainings-in-Renewable-Energy-Best-Practices>

EWG 02 2017A Trainings in Renewable Energy Best-Practices: Procurement, Contracts, Lifecycle Cost Analyses, and Risk Mitigation to Mobilize Private Investment (2)

Workshop highlights:

- The power purchase agreement (PPA) is the lifeblood of a renewable energy (RE) project, so its terms as well as the terms of other associated agreements should be developed in conjunction with the community of project developers, the off-taker/utility, lender(s), and any relevant ministries to ensure it is a mutually beneficial agreement.
- The regulator plays a critical role in both generating investor confidence and encouraging utilities to adopt and integrate RE.
- Competitive procurement, especially via auctions, has dramatically reduced the cost of RE to at or below grid parity in diverse economies worldwide; feed-in tariffs (FiTs) do not offer the same cost savings but may offer other advantages such as speed and ease of administration.
- Robust tools exist for calculating the value/expense of non-price costs (public health, environment) from different power generation lifecycles. Decision-makers can use these tools to forecast economic effects and externalities from changes to energy policies and technologies.

EWG 15 2018S – APEC/NARUC Workshop on Supporting Renewable Energy Integration and Energy Efficiency through Effective Regulation

- The project is led by the National Association of Regulatory Utility Commissioners (NARUC)
- This workshop will engage the EGNRET and EGEE&C to highlight the critical role of energy regulation in driving progress toward meeting renewable energy and energy efficiency goals in APEC member economies and throughout the region as a whole. By providing a platform for an exchange of international regulatory best practices, NARUC aims to facilitate the development of stronger, more sustainable energy systems.
- The primary objectives of NARUC's engagement with APEC are to:
 - Highlight the role of the energy regulator in promoting renewable energy development and deployment and in designing and implementing energy efficiency programs;
 - Provide a platform for regulatory dialogue and exchange of international best practices among APEC member economies;
 - Identify opportunities for cooperation and/or coordination among APEC member economies to advance progress energy efficiency and renewable energy goals at the regional level.
- Status: The workshop was held March 19, 2019.