

## Summary of the 6<sup>th</sup> Meeting of the Energy Resiliency Task Force

Monday, May 14, 2018  
Hong Kong, China (EWG55)

### 1. Welcome/Introductions

ERTF Co-Chairs Patrick Aquino (PH DOE) and Elena Thomas-Kerr (US DOE) welcomed EWG delegates to the meeting. The ERTF approved the meeting minutes from the 5<sup>th</sup> ERTF meeting held in Wellington at ERTF54, as well as the revised ERTF Terms of Reference.

### 2. Energy Access Work Stream

The chairs noted the new energy access work stream tasked to the ERTF at EWG54 based on an IEA Special Report on energy access and the Leaders Declaration from 2017 calling for the enhancement of access to affordable and reliable energy.

**IEA:** The IEA provided an overview of its *Energy Access Outlook 2017* report to put the new work stream into context. The IEA noted the increasing political momentum globally to enhance energy access, including specific energy access targets and commitments undertaken by several governments. The report found that there is significant progress in electricity access around the globe, and the declining cost of renewables, innovative off-grid business models and increasing energy efficiency in lighting and appliances are increasing the way access is delivered to populations with a marked shift toward renewables projected into 2030. However, more work needs to be done to promote energy access.

**China:** China, the lead for the energy access work stream, briefed on its draft energy access paper, “Initiative to Enhance Energy Access in APEC,” that was circulated for ERTF review/comment prior to the meeting. The paper reviewed challenges to energy access (e.g., geography, lack of innovative technologies, limited funding, and insufficient collaboration) and proposed collective actions to fill the gaps including policy research, technology solutions, financial support, capacity building, and regional cooperation.

Economy representatives welcomed the new work stream and thanked China for its draft paper, though one economy asked if any new funding or sub-fund would be required for this work stream. China noted the possibility of funding from China for an initial set of activities under the new work stream. The U.S. Co-Chair recalled that energy access is tied into a number of areas already covered in the EWG portfolio to pursue affordable, reliable and sustainable energy development, and that this is merely a new way of organizing energy issues from an energy access perspective. The Philippines Co-Chair emphasized the need to engage the private sector in energy access efforts. Other economies cautioned against duplication of work with existing international organizations on this effort.

During the final review of the draft paper, the ERTF was unable to reach consensus. China was therefore requested to discuss the energy access paper with interested economies and present a revised draft before the next meeting at ERTF7 in Lima (EWG56).

### 3. APEC 2018 Digitization Priority (Smart Grids)

Given the 2018 Host Year priority on digitalization, the chairs invited members to share domestic efforts in this area.

**United States:** The United States provided an update on an energy resilience modeling effort to support recovery from Hurricane Maria in Puerto Rico. The U.S. Department of Energy's Office of Electricity is leading an effort with 5 national laboratories to provide grid modeling tools to Puerto Rico that will help the island plan and operate a more resilient electric power grid system, incorporating microgrids and smart grids to enhance energy resilience in the future. An important goal of the work is to build advanced grid modeling tools which can use both predicted and real data to characterize the coupling of electric power and telecommunications systems and provide the capability to undertake dynamic protection-planning analysis which will simulate targeted weather events.

**Philippines:** The Philippines briefed on its own smart grid efforts, which focus on distributed grid resources and microgrids. The Philippines reported that a problem with building resiliency into grid planning is that government funds cannot be used to pay for the added costs associated with more resilience grid systems.

**IEA:** The IEA has initiated efforts on smart grids through its *IEA Smart Grid Action* Network effort, and emphasized that the energy sector has been an early adopter of digital technologies. They are assessing how digitalization can help integrate variable RE resources, how smart charging from electric vehicles can increase grid flexibility and how smart demand response can help further integrate distributed energy resources.

**United States:** The United States also shared information about a June 27 workshop in Singapore on *Digitalization and Energy in ASEAN: Transforming the electricity system and enhancing digital resilience*. The workshop will review opportunities and risks of digitalization (focusing on electricity), including how it could help address growing regional energy demand while ensuring security, affordability, and environmental sustainability. Experts will share analysis, case studies, and lessons learned to help policy-makers navigate the rapidly changing digital landscape.

### 4. APEC Energy Resiliency Project/Work Stream Updates

**USA:** The United States provided an update on the *APEC Workshop on Promoting Resilience in the Energy Sector* (EWG09 2017A) scheduled for July 31-Aug 2 in Cebu. The workshop will focus on climate risks to power system performance and services and measures that can be taken to enhance resilience of energy infrastructure to natural and man-made disasters. This project will promote greater energy resilience in power systems through integrated resource and resilience planning.

**Australia:** Australia provide a brief update on its project, *Integrated energy system planning for equitable access to sustainable energy for remote communities in the northern regions of North Sulawesi* (EWG 13 2017). The project commenced in November 2017 and a July

workshop was planned to share best practices for attracting private investment to special economic zones in remote areas. A goal of the project is to deliver an innovative low carbon energy roadmap with the next level of granularity to provide practical information which local government, energy providers (Pertamina and PLN), local businesses and finance institutions can use to support investment decisions, implementation of projects, and policy development.

**IEA:** The IEA provided an update on its *7th Forum on the Climate-Energy Security Nexus*, co-hosted by the ADB in June 2017. Some key conclusions from the event included: 1) the lack of access to financial resources and a lack of organization capacity may be more important than policy barriers to resilience building, 2) the linkages between water and energy are intensifying, and therefore, sustainable energy development will require proper management of the energy-water nexus. The IEA will continue to assess water-energy nexus challenges in future reports.

## **5. New/Planned APEC Energy Resiliency Project Proposals**

**China:** China briefed on a new self-funded project, *Cloud-Based Sharing Platform of Multi-Energy Microgrids*. Tianjin University will lead a collaboration with multiple international universities, which aims to establish a world-leading cloud-based sharing platform of microgrids (M-CSP) to grow the research community and enhance the capability in the planning, operation and management of microgrids for APEC economies. The M-CSP would enable data sharing, case demonstration, technical exchange, personnel training, and academic collaborations among APEC economies. At least 2~3 microgrids in each APEC economy are recommended to be connected to the M-CSP. Project activities include both a workshop to be held in China and a project report.

**United States:** The United States briefed on a new U.S. self-funded workshop 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 among relevant stakeholders on the expanded use of ethanol as member economies seek to improve energy access and meet APEC's doubling renewable energy goal. This project builds off previous EWG work in developing a roadmap for best practices in developing an ethanol industry in APEC economies, and individual economy case studies of challenges and opportunities of developing ethanol policies.

## **6. Next Steps/Wrap Up**

The chairs invited all members to provide updates on the workshops and efforts discussed at the meeting.

The 7th meeting of the ERTF will be held in Lima, Peru in November 2018, alongside EWG56.