

# **2015 APEC Energy Ministerial Meeting**

## **CEBU DECLARATION**

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#### **Cebu, Philippines**

1. We, the Energy Ministers of Member Economies of the Asia-Pacific Economic Cooperation (APEC) convened in Cebu, Philippines on October 13, 2015, in support of the theme “Towards an Energy Resilient APEC Community.”
2. Bearing in mind the 2014 Leaders’ commitment made on the APEC Connectivity Blueprint for 2015-2025, we affirm the importance of energy resiliency in promoting energy security and sustainable development and providing access to the people. This includes, in particular, the ability and quality of energy infrastructure to withstand extreme natural and man-made disasters, to recover and return to normal conditions in a timely and efficient manner and to build back better.
3. We recognize that the APEC region has become the lynchpin of world economic progress. Our combined growth rate is estimated at 4 percent annually over the past 10 years, one of the more dynamic economic regions in the world. This growth has translated into an annual increase of 3 percent in energy demand. We reaffirm that energy remains a critical input for intensifying and sustaining productivity improvements across all sectors in the economy, which supports APEC’s economic development.
4. We reaffirm the importance of promoting energy trade and investment frameworks to regional energy security and to sustainable economic growth. We also reaffirm the importance of competitive and innovative markets in providing the APEC region with commercially viable and sustainable energy resources and clean energy technology solutions.
5. The past decade has been characterized by a series of super typhoons, hurricanes, flash floods and storm surges, among others, that challenged the robustness and integrity of existing energy systems

across Member Economies. The vulnerability of energy infrastructure and associated facilities to natural and man-made disasters may result in economic breakdown or business interruptions thereby compounding the actual cost of damaged infrastructure.

6. We recognize that for developing economies, the costs of rehabilitation and rebuilding can be prohibitive; as recovery efforts could account for a substantial share of the economy's Gross Domestic Product (GDP). Beyond the cost of reconstruction, we note that a disruption of fuel supply and breakdown in energy infrastructure interdependencies could seriously affect the free flow of goods and services within an economy and within the region itself. Moreover, improving the capacity of the APEC region to respond to emergencies such as disruptions in oil and gas supply is vital, and as such, we reaffirm the continuation of the APEC Oil and Gas Security Initiative(OGSI) which puts forward oil and gas security exercises, network and studies.
7. Consistent with the theme of an energy resilient APEC community we recognize the need to conduct a vulnerability assessment of existing infrastructure and evaluate current infrastructure standards. We encourage members to improve the robustness of their energy infrastructure and policy, through capacity building, sharing of information, and promoting best-practices as appropriate. Furthermore, we reaffirm that resilience to potential energy supply disruptions can be strengthened through effective, well-targeted market and governance response mechanisms. We also encourage Members to promote energy supply diversity and energy efficiency and to reduce barriers to energy trade and investment in advancing resilience of the energy sector.
8. We recognize the importance of the private sector in meeting the APEC region's future energy demand and infrastructure needs. We encourage Member Economies, in cooperation with the APEC Business Advisory Council (ABAC) to continue to foster and nurture public-private partnerships that will encourage the adoption of appropriate standards for critical energy infrastructure.
9. We welcome the new APEC Initiative for Enhancing the Quality of

Electric Power Infrastructure taking into consideration not only resilience to extreme weather events but also lifecycle costs, responsiveness to changing market circumstances and business continuity.

10. We reaffirm the importance of low carbon development to achieve our individual and regional economic aspirations and goals. We commend the significant progress of the APEC Low-Carbon Model Town Project where the concept and the indicators for APEC Low-Carbon Town are being developed. We view environmental sustainability as equally important with economic prosperity, and recognize the important role of the market in providing efficient, cost-effective energy technology solutions and energy resources. The future economic growth of the APEC region will be supported by an appropriate mix of energy resources and power generation technologies that includes both conventional and renewable energy with increasing priority for clean energy sources and enhanced energy efficiency. In this regard, we will build on synergies among the Member Economies aimed at maximizing strengths from each economy thus minimizing costs of policy implementation.
11. In transitioning to a low-carbon economy we will explore the contribution of clean energy technologies and energy efficient initiatives in the transport and power sectors. These may include biofuels, civil nuclear power for interested Member Economies, advanced coal technologies, liquefied natural gas (LNG), solar, wind, and marine energy technologies. We will strive to attain APEC's aspirational goal of doubling the share of renewables in the APEC energy mix, including in power generation, from 2010 levels by 2030." We strongly encourage the acceleration of renewable energy development and deployment toward this end.
12. We reaffirm the importance of safe and efficient development of civil nuclear power as an option to clean, high-quality and advanced modern energy, which functions as a base load power source, to help ensure global energy security and sustainable development as well as reducing greenhouse gas emissions. We encourage interested Member Economies to continue to exchange experiences and best practices, pursue practical cooperation including improving nuclear safety performance and coordinating emergency response and preparedness

mechanisms, conduct capacity building and training for the safe, security and non-proliferation.

13. Cognizant that the energy-water nexus is an important aspect of our collective energy resiliency, it is important that we understand the interdependence of these resources, determine vulnerabilities and strengthen our response to anticipated changes exacerbated by climate change. Our energy facilities require a reliable and abundant source of water, which is already in short supply around the world. As we define the appropriate fuel and power generation technology mix that would support the twin goals of economic prosperity and environmental sustainability, we will endeavor ways to understand the complex relationship between energy and water, address challenges, and utilize both resources more efficiently.
14. We reaffirm our commitment towards sustainable energy development in Asia Pacific Region through knowledge-sharing and facilitating technology cooperation, demonstration and dissemination. We recognize the progress made by the newly-established APEC Sustainable Energy Center (APSEC) in completing its institution building. We encourage APSEC to continue its work in expanding sustainable city development across the region, cutting-edge clean energy technologies and other programs on energy resiliency. We encourage APEC economies to support the work of this new institution.
15. We will sustain efforts to integrate emerging and cutting edge technologies in our economic and business processes that will significantly improve our energy utilization and optimize the use of existing energy assets and capital investments in the region. The Member Economies, subject to individual circumstances, will continue to explore applicable energy efficient technologies, processes and services and subsequently pursue policies that enable their entry to markets with a vision towards achieving the APEC aspirational target of reducing aggregate energy intensity by 45 percent from 2005 levels by 2035.
16. We believe that APEC continues to be a platform for the exchange of experiences, and information related to technology development,

demonstration and deployment. The ultimate goal is the adoption of cost effective, relevant and applicable cutting edge energy technologies that would sustain the development of each Member Economy and the region as a whole.

17. A priority goal in developing a resilient APEC community will be to provide energy access to our people, including in remote communities. We note that clean energy technologies and traditional energy sources, including cleaner use of fossil fuels are important in addressing energy access challenges. We recognize that significant potential exists to provide energy access to rural communities through the up-take of micro grids, energy storage and their integration with renewable energy resources.
18. We recognize that providing reliable, affordable and secure supplies of energy to remote communities will drive income generation and simultaneously encourage economic growth, sustainable environmental outcomes and new opportunities, such as eco-tourism for our people including women. We also welcome the Workshop on Improving Energy Resiliency in Off-Grid Areas in Member Economies to be organized by the Philippines.
19. We recognize that natural gas, including pipeline and liquefied forms, plays an increasingly important role in the Asia-Pacific region, and as such, we appreciate Member Economies' efforts to create favorable conditions for trade and investment to support a diversified, flexible and integrated natural gas market in the APEC region.
20. In keeping with APEC's goal of inclusive growth, the development of community-based clean energy strategies paves the way towards income generating activities that benefit the marginalized and indigenous communities as well as expand participation of women. We envisage the APEC region to be the home of well-integrated major power systems as well as a global model for satellite community-based micro independent grids that promote sustainable and inclusive growth as well as offer equal and gender-fair employment opportunities.

21. Furthermore, and consistent with the APEC 2015 priority to design Micro, Small and Medium Enterprises (MSME)-focused policies, we recognize that reliable access to energy will be integral to the success of the MSMEs to grow and expand, compete, innovate and ultimately create jobs.
22. We reaffirm the APEC Leaders' commitment, and welcome ongoing initiatives of Member Economies, to rationalize and phase out inefficient fossil fuel subsidies that encourage wasteful consumption while providing energy access to those in need. We are committed to make substantive progress toward this goal in the medium term. We commend Peru and New Zealand for completing voluntary peer reviews, and the Philippines, Viet Nam, and Chinese Taipei for volunteering to initiate peer reviews. We encourage the exchange of best practices and capacity building efforts to facilitate fossil fuel subsidy reform.
23. We will strive to develop the analytical, technical and operational capacity of our respective labor sectors in preparation for energy technology breakthroughs. We are aware that human capital development should be tempered with policies that provide incentives for retention and advancement of our workers, particularly the women, in the energy sector.
24. As we commit to contribute significantly to the goals and objectives of the 2015 APEC Economic Leaders' Meeting, the key policy directions and priorities of this Declaration are hereby summarized into a concrete set of actions and activities, embodied under the "Instructions of the APEC Energy Ministers."

## **Instructions from the APEC Energy Ministers**

We instruct the Energy Working Group (EWG), together with the Asia Pacific Energy Research Centre (APERC), the APEC Sustainable Energy Center (APSEC), the Experts' Group on Clean Fossil Energy (EGCFE), the Experts' Group on Energy Data and Analysis (EGEDA), the Experts' Group on Energy Efficiency and Conservation (EGEE&C), the Experts' Group on New and Renewable Energy (EGNRET) and the Low-Carbon Model Town Task Force (LCMT-TF) to promote and collaborate on initiatives under the theme: "Towards an Energy Resilient APEC Community" and provide progress reports in the next Energy Ministers' Meeting.

Further, we instruct the EWG to create a Task Force on Energy Resiliency to follow up and implement the Ministers' Instructions.

### **Disaster Proofing Energy Infrastructure**

1. We instruct the EWG to explore the conduct of a vulnerability assessment on energy infrastructure given natural and man-made disasters in the region, in coordination with the Emergency Preparedness Working Group (EPWG) and other relevant APEC fora and international organizations. The vulnerability assessment report shall include, among others, regional geo-hazard maps identifying highly vulnerable regional spots as well as evaluation of best practices that will guide policy and program decisions on the design and location of potential supply chains, interconnections and facilities. The assessment will also determine the costs for the upgrading and retrofitting of energy infrastructure and associated facilities. This will help ensure reliable and sustained production, and conversion and delivery of energy products and services to minimize threats to the region's energy security.
2. We instruct the EWG with the support of APERC, in cooperation with other international and regional organizations to formulate a document of best practices enhance the quality of electric power infrastructure in the Asia-Pacific region.
3. We instruct the EWG its related expert groups and centres to

undertake research and development programs on energy sector resiliency to disasters and climate change impacts to guide APEC Member Economies to promote effective policies and institutional mechanisms including appropriate monitoring and evaluation systems. We encourage the EWG, with the support of APERC and other organizations such as the, International Energy Agency (IEA) to strengthen oil and gas emergency response mechanisms in the APEC region through the APEC Oil and Gas Security Initiative(OGSI). We instruct EWG to work with Member Economies to improve capacity building in oil and gas emergency responses, including strengthening response systems that suit their own individual circumstances; and to conduct oil and gas security exercises on a voluntary basis.

4. We urge the EWG to assist interested Member Economies to evaluate energy mix policies, ensure energy system redundancy and mitigate the adverse impact of energy supply disruptions during natural and man-made disasters. We encourage Member Economies to consider the use and applicability of distributed generation and micro grids including greater integration of renewables and expanded energy efficiency, supported by portable and/or mobile power systems as well as energy storage as an adaptive mitigating response to disasters to share information on energy infrastructure technology advancements, technological innovations and best practices. This would enhance emergency preparedness and response mechanisms to destructive climatic conditions that threaten the integrity of existing energy infrastructures.
5. We recognize the Philippine initiative to conduct a two-day workshop on improving resiliency of energy infrastructure in off-grid areas within the Asia-Pacific region by early 2016. A major output of this workshop will be the publication of the Best Practices to Improve the Climate Change Resiliency of Energy Facilities in Off-Grid Areas, to be presented in the next EMM. We, therefore, encourage Member Economies to continuously update and adopt the Best Practices within the context of their respective economic and environmental conditions, and to share their experiences.

### **Advancing Cutting-Edge Energy Efficiency Technologies**

6. We encourage Member Economies to help ensure equal and

gender-fair human resource capacity development. This is part of our endeavour to support the APEC Policy Partnership on Women and the Economy under the 2014 Beijing Declaration towards the integration of gender work in the improvement of education, skills training and jobs generation, analytical and technical capacity leading to a sustainable supply of a home-grown cadre of professionals in the energy sector. These efforts also support APEC Leaders' broader commitments to advance women's economic participation and integrate gender across APEC fora.

7. We instruct the EWG through the EGEE&C in collaboration with appropriate organizations to undertake an analysis of available energy efficient technologies. This will guide Member Economies to pursue the most cost-effective technology for all energy consuming sectors according to their unique circumstances. Evidence-based studies are useful in formulating policies that will facilitate the entry of cutting-edge energy efficient technologies. We instruct the EWG with the support of APERC to complete the research on energy and economic competitiveness by the end of next year. We instruct the LCMT-TF to move the current LCMT Project into the next stage in order to disseminate Low-Carbon Towns in the Asia-Pacific region. We also encourage Member Economies to continuously share best practices of energy-smart related projects under the APEC Energy Smart Community Initiative Knowledge Sharing Platform (ESCI-KSP).
8. We encourage Member Economies to develop minimum energy performance standards in building codes and energy appliances, industrial equipment and smart metering devices. We instruct the EWG to review progress on harmonization of energy standards and regulations and to address barriers to trade, financing and the promotion of greater mobility of goods and services across our borders. We further instruct the EWG to explore potential opportunities for the co-sharing of testing centers in the region.
9. In pursuit of the 2011 APEC Transportation and Energy Ministerial Conference Action Agenda, we instruct the EWG to collaborate with the Transportation Working Group (TPTWG) to cooperate on best practices for strengthening fuel quality and vehicle efficiency standards and explore potential emissions and efficiency standards for

vehicles within the APEC region consistent with other international efforts. Furthermore, we instruct the EWG to conduct extensive studies on increasing the share of alternative fuel and electric-drive vehicle technologies in the public transport sector including the potential impact to end-users.

### **Promoting Community-based Clean Energy Use in Energy Poverty Stricken Areas**

10. We instruct EWG to work with APSEC with the assistance of the LCMT-TF to undertake APEC Cooperation Initiative for Jointly Establishing an Asia-Pacific Urbanization Partnership endorsed by APEC Leaders in 2014. Construction of new buildings is an integral component for sustainable cities, and serves as an effective platform to demonstrate and apply cutting-edge technology. In line with this, we encourage Member Economies to explore strategies to drive the shift towards green buildings including zero energy buildings. This will ensure that new construction designs are incorporated in residential, commercial and even industrial structures including concepts and principles embracing energy efficiency particularly in emerging economic growth areas or second-tiered cities.
11. Cognizant that most energy-poverty stricken areas possess potential to be developed as tourist destinations, we instruct the EWG to work with the APEC Tourism Working Group to come up with an energy eco-tourism development framework.

### **Improving Energy Trade and Investment in APEC**

12. We encourage Member Economies to give importance to energy infrastructure planning and development and share information and ideas, including harnessing the potential of regional energy interconnectivity. This will contribute to the APEC goal of achieving open and transparent energy trade and investment markets among Member Economies. In this regard, we reiterate that the EWG continue its collaborative work such as enhancing quality of infrastructure investment and development with the APEC Committee on Trade and Investment (CTI).
13. We instruct the EWG to conduct capacity building activities to

facilitate fossil fuel subsidy reform for interested economies, including the conduct of additional peer reviews and the exchange of best practices, to eliminate wasteful consumption and redirect investment toward cleaner energy alternatives and other measures for sustainable growth across the region.

14. We instruct the EWG to explore the role of renewable energy policies and activities for energy markets, including in relation to the APEC aspirational goal of doubling the share of renewable energy, including in power generation, by 2030 from 2010 level.
15. We encourage Member Economies to adopt Public-Private Partnership to strengthen energy infrastructure development and connectivity, such as oil and natural gas pipelines, grid transmission and interconnection highways, LNG facilities, smart grids and distributed energy systems to boost trade and investment among Member Economies. We further instruct the EWG to work with the APEC Business Advisory Council (ABAC) and the MSME Working Group in developing a multi-year approach crucial to stimulate energy investments based on shared interest and mutual benefits.
16. To capitalize on the potential of LNG and to respond to the new picture of energy supply and demand, we instruct EWG to strengthen dialogues on establishing a proper, transparent and flexible LNG trading system under the APEC Regional LNG Trade Facilitation Initiative, to jointly pursue common benefits of LNG suppliers and consumers in the region, and to ensure regional energy security.
17. As global concern on the linkages among energy, water and security increases in use, we hereby instruct the EWG to initiate in-depth studies on challenges stemming from the energy-water nexus and ways to mitigate the vulnerabilities by reducing water-stressed activities and striking a delicate balance for sustaining economic growth with the optimal use of energy and water resources.
18. In order to meet the needs of increasing investment in green economy, we instruct the EWG to implement APEC Green Energy Finance Initiative in support of the financial sustainability of renewable energy

and energy efficiency development in the region. We also instruct the EWG to strengthen dialogues and cooperation with related international organizations and multilateral financial institutions on capacity building in financing green energy.