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Asia Pacific Economic Cooperation - Energy Working Group Strategic Plan for 2014 - 2018

Energy Challenges and Opportunities in the APEC Region¹

A variety of trends and recent events have converged in ways that present unprecedented energy challenges and opportunities for APEC Member Economies over the next five years. Volatility in world oil markets, climate change, newfound unconventional gas reserves, the growth of developing economies and rapid changes in technology have all contributed to a landscape that involves significant threats to regional energy security, but also present new enormous opportunities and pathways.

Major concerns in the APEC region involve sufficient oil production, rising GHG emissions and questions surrounding future nuclear power generation. Since 1990, overall oil production in the APEC region has increased only slightly, while oil demand has risen significantly. As a result, oil imports into the APEC region have grown faster than production. Despite some significant increases in APEC's own oil production, the APEC region is expected to become more dependent upon oil imported from outside the region, exposing the region to possible additional supply shocks.

Meanwhile, should APEC continue along its current trajectory of GHG emissions, the consequences for the climate could be significant. APEC region carbon dioxide (CO₂) emissions from fuel combustion are expected to rise by about 32 percent between 2010 and 2035. These emissions make it one of the greatest challenges facing the region.

Finally, the Fukushima Nuclear Accident has caused some APEC Member Economies that use nuclear power, or are considering using nuclear power, to reassess their policies. Nuclear safety regulation is being reviewed and upgraded in all APEC Member Economies with nuclear power. These safety reviews will necessarily cause some delays and slow-downs in nuclear power development. While all evidence suggests that the long term development of nuclear power will not be impacted by the accident at Fukushima, the uncertainty surrounding nuclear development in the short-to-medium term will remain.

The region has also seen several encouraging trends, including progress on reducing energy intensity, greater access to large natural gas reserves and the acceleration of renewable energy technology deployment. By 2035, the Asia Pacific Energy Research Center (APEREC) expects the APEC region's primary energy supply to increase by about 53 percent compared to 2005, while gross national product (GDP) will increase by about 225 percent. The net impact over time will be a decrease in primary energy intensity of about 53 percent, with variations in individual years. This decline primarily reflects improvements in technology driven by market forces (including rising energy prices) and the impacts of existing government policies promoting energy efficiency.

¹ Adapted from APERC's APEC Energy Demand and Supply Outlook – 5th Edition.

Meanwhile, the growing production of unconventional gas, initially in the United States and Canada but with significant potential in other APEC Member Economies, has far exceeded expectations of only a few years ago. This is primarily the result of more widespread use of technology for producing shale gas, including horizontal drilling and hydraulic fracturing. The conventional and unconventional gas resources of the Asia–Pacific region are immense. With LNG prices in Asia several times higher than those in North America, the economics of gas development outside of North America, as well as further gas development in North America, are compelling.

Finally, many APEC Member Economies also are responding to climate change challenges with policies to promote renewable energy development, and the responsible development and use of fossil fuels. An ongoing commitment to develop new technologies and accelerate innovation will help balance energy needs with protecting the environment and economic growth. This commitment is particularly important as the region will remain dependent on fossil fuels for decades to come. Technological improvement also continues to reduce the cost and improve the performance of renewable energy. While APERC expects renewable electricity generation to grow faster than any other form of electricity generation in the region, the overall role of renewables in energy supply will remain modest absent policies and investment that accelerate growth even further.

Vision Statement

We envision an APEC region that has strong energy security and energy efficient and sustainable communities, and that strives for the development of cleaner energy resources, an equipped workforce, and open trade and investment in energy goods and services.

More specifically, we envision an APEC region that will:

1. Achieve greater energy security through the use of a wide diversity of energy supplies that are developed in a safe, efficient and environmentally sustainable manner,
2. Rationalize and phase out inefficient fossil-fuel subsidies that encourage wasteful consumption, while recognizing the importance of providing those in need with essential energy services;
3. Continue to be an innovation hub with a skilled workforce for cutting edge renewable and energy efficiency technologies and supportive policies in areas of power generation and distribution, industry, transport, buildings and appliances;
4. Lead the world as a region where energy goods, services and investment flow freely; and
5. Transition to a lower carbon economy through the continued development of cleaner energy sources and technologies and improved energy efficiency through commercially viable technologies, and effective policies and practices adopted by an ever increasing number of cities and communities.

Mission Statement

Our mission is to build the capacity of APEC members to strengthen domestic and regional energy security and lower the carbon intensity of energy supply and use across the region, facilitated by information and data exchanges, joint research and development, and open trade and investment.

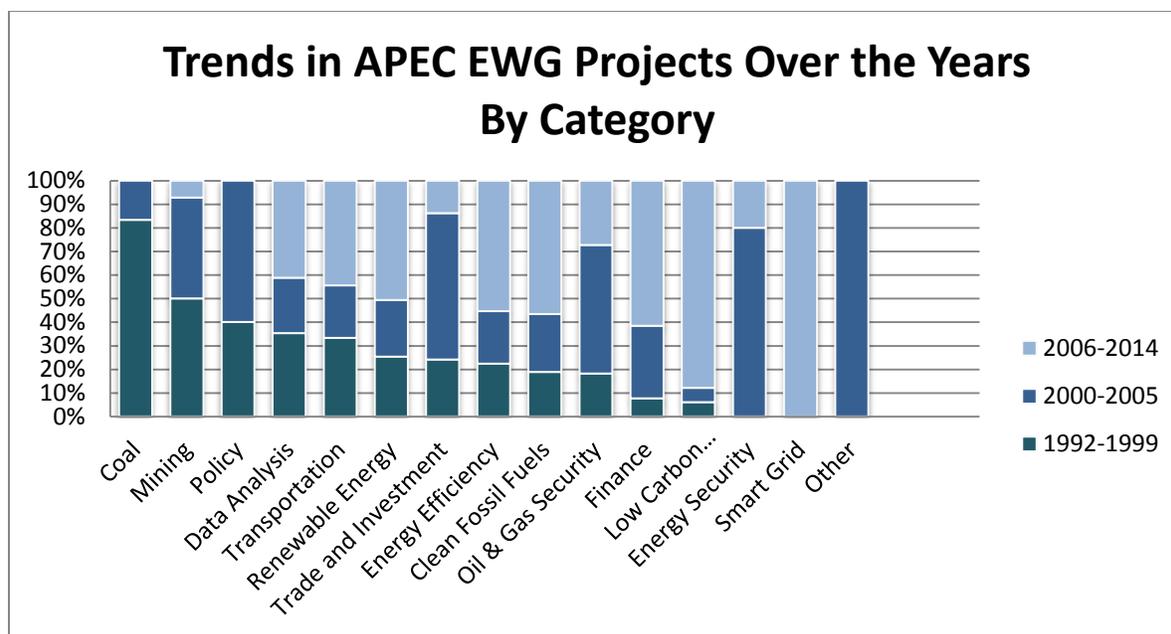
The EWG is composed of policy officials and technical experts from APEC Member Economies who work with other experts in other APEC fora, academia, private industry, and regional and international organizations to build the capacity of APEC Member Economies aimed at:

- Strengthening regional and domestic energy security and resilience across the region;
- Lowering the carbon intensity of energy supply and use;
- Promoting the diversification of fuels and sources; and
- Training a gender-inclusive energy workforce.

The EWG achieves this mission through workshops, seminars, exchanging views, developing best practice guides and manuals, demonstrations, peer reviews, research, data collection and analysis, and dissemination of information.

Objectives and Key Performance Indicators

The work of the EWG can be encompassed via four pillars: strengthening energy security, promoting energy efficiency and sustainable communities, developing cleaner energy sources and enhancing trade and investment in all energy sources to promote economic prosperity. These pillars stand upon the foundation of over 380 EWG projects undertaken from 1993 to 2013. Looking ahead, the section below highlights the guiding objectives under each of these pillars and the performance indicators planned for each through 2019. (See Deliverables for 2014-2018, Prioritization Implementation Schedule below for details on specific planned activities to support these objectives.)



1. Strengthen Energy Security: APEC Member Economies are able to cooperatively weather short-term energy supply disruptions and to secure an affordable and cleaner energy supply for the region through longer-term measures including improving the quality of energy policies and decision-making in APEC Member Economies and increasing the efficiency of the regional energy market by improving the quality, availability and accessibility of energy data and projections and by analyzing regional energy trends.

- Develop emergency response mechanisms and relevant data that can address both safety as well as short-term disruptions in energy supply.
- Cooperate among interested members and relevant international organizations to promote the safe, secure and peaceful use of nuclear energy.
- Encourage the removal of inefficient fossil fuel subsidies that promote wasteful consumption while recognizing the importance of providing those in need with essential energy services.
- Continuously assess fossil fuel resources in the APEC region and assist economies in effectively bringing those resources sustainably to market.
- Undertake analysis, research and demonstration to understand the water-energy nexus, share best practices and address associated challenges.
- Enhance the security of energy networks in the APEC region.

2. Promote Energy Efficiency and Sustainable Communities: APEC Member Economies are more reliant on sustainable energy sources and energy efficient technologies and practices that reduce their overall energy consumption. Advancing the application of demonstrated energy-efficiency practices and technologies contribute to international efforts to reduce the adverse impacts of energy production and consumption, and improve the analytical, technical, operational and policy capacity for energy efficiency and conservation within APEC Member Economies.

- Collaborate on product and system standards that enhance energy efficiency and clean energy deployment, while exchanging information on the impact of such standards.
- Facilitate the exchange of best low carbon policies, practices and tools among APEC Member Economies to promote the development of sustainable communities across the region and to achieve progress towards the goal of reducing APEC's aggregate energy intensity by 45 percent from 2005 levels by 2035.
- Support the development and commercialization of energy efficient technologies in the areas of power generation and distribution, industry, transport, buildings and appliances.
- Strengthen the reliability, adaptability and interoperability of electric grids in the APEC region.
- Develop the human resource base and energy consumers within APEC Member Economies to improve their analytical, technical, operational, and policy capacity in the area of energy efficiency and overall energy literacy.

3. Develop Cleaner Energy Sources: APEC Member Economies meet their energy needs in a way that minimizes impact on the environment and is safer for future generations by: adopting existing energy technologies, supporting innovation and new fossil fuel technologies, and facilitating an increase in the use of new and renewable energy technologies in the APEC region through the fostering of a common understanding of regional renewable energy technology issues.

- Develop the human resource base within APEC Member Economies, including full engagement of women in green development, to improve their analytical, technical, operational and policy capacity in the area of clean energy development
- Support the UN Secretary General's SE4ALL initiative by endeavoring to double the share of renewables from 2010 levels in the APEC energy mix, including in power generation, by 2030 and increasing the number and type of renewable energy projects.
- Increase understanding of the relevant clean fossil energy technologies including carbon capture, use and storage (CCUS), promoting their efficient use, and facilitating access to these technologies by encouraging information exchange.
- Promote analysis and information exchange related to the maintenance and enhancement of an open, efficient fossil energy market in the region.
- Facilitate joint research and development on clean fossil energy technologies that are adapted to the needs of APEC Member Economies, as well as demonstrate and disseminate appropriate clean fossil energy technologies.
- Conduct renewable energy resource assessments to facilitate a thorough understanding of renewable energy resource availability in APEC Member Economies.
- Support the development and commercialization of clean energy technologies so as to make them economically viable in a wide range of applications.
- Facilitate the exchange of best policies, practices and tools in the area of clean energy financing.
- Educate industry, financial institutions, governments, technical assistance providers and educational institutions on the benefits of clean energy and the issues associated therewith.
- Engage in clean energy technology assessment and related activities to demonstrate the cost-effectiveness of clean energy applications.
- Facilitate improved reliability and stability in the provision of clean energy supply to meet demand.

4. Prosperity through Trade, Investment and Economic Growth: APEC Member Economies move towards a framework where energy goods, services and investment flow openly and transparently and reduce the environmental impact of the energy sector by developing and enhancing trade among APEC Member Economies in products and services and energy-efficiency practices and technologies, and new and renewable energy technologies and services.

- Study how the APEC region can improve economic competitiveness and achieve sustainable development, while at the same time addressing energy security and environmental concerns.
- Identify significant barriers to energy trade and investment in the APEC region by seeking the business community's input on priority trade and investment barriers in the energy sector.
- Build APEC Member Economies capacity to address barriers to energy trade and investment.
- Promote accessibility and transparency in the formulation and administration of energy sector investment-related policies.
- Enhance consistency of policies affecting energy trade and investment across the APEC region.

Critical Success Factors

In order to ensure the realization of the EWG's vision and mission, members commit to the following work principles:

- All EWG project reports and workshops will be made available or linked to the EWG website so that they may be shared widely with the public. To achieve this goal, expert group and task force chairs commit to updating their respective sites every [three] months with outputs from projects or events carried out under their group.
- All proposed projects will have the potential to benefit each APEC Member Economy and address needs that are shared among economies.
- EWG expert groups and task forces will stay apprised of each other's current and proposed work to leverage the expertise of each for specific projects and to avoid duplication of efforts.
- Members will initiate strategic collaboration, where appropriate, with other international and regional organizations and associations where work overlaps with that of the EWG.
- Members will relay the information and outcomes of EWG workshops and work products to their relevant domestic stakeholders and exchange best practices on effective techniques in this regard.
- The EWG Secretariat, and the Expert Group and Task Force Chairs will stay apprised of energy-related work in other APEC forums and design synergistic projects with other APEC groups, including but not limited to the Policy Partnership on Science, Technology and Innovation (PPSTI), Small and Medium Enterprise Working Group (SMEWG) and Transportation Working Group (TPTWG), as appropriate.

Deliverables for 2014-2018, Prioritization Implementation Schedule

Objective Performance Indicator	Activities/Deliverables	Lead Economy/ Fora	Start Date	End Date
Strengthen Energy Security				
Develop emergency response mechanisms and relevant data that can address both safety as well as short-term disruptions in energy supply.	The APEC EWG will: 1) Reassess the “Sea-lane Disruption Simulation Exercise”, held April 2002 in Tokyo and organized by APERC, to reflect new geo-political realities in North Africa and the Middle East; and 2) update the 6th Energy Ministers Declaration on Energy Security in 2004 (Manila), to reflect the present day energy environment. The APEC EWG will revisit the “Best Practice Principles and Management of Strategic Oil Stocks,” and “Earthquake Response Cooperation Initiative” to encourage development of strategic stocks in interested economies, build resiliency into energy infrastructure to natural disasters and climate change, and increase the availability of timely, transparent and reliable energy data. The APEC EWG and APERC will carry out APEC Oil and Gas Security Initiative (OGSI) in collaboration with the IEA and ASEAN which consists of activities to improve the response to oil and gas emergency situations in the APEC region, including developing security exercise model procedures, establishing security network and publishing a security studies series.	EWG	2013	2019
Cooperate among interested members and relevant international organizations to promote the safe, secure and peaceful use of nuclear energy.	The Expert Group on New and Renewable Energy Technologies (EGNRET) will work with the International Atomic Energy Agency (IAEA) and other relevant organizations to conduct capacity building and training, and APEC Member Economies will regularly share best practices and lessons learned.	EGNRET	2015	2017
Encourage the removal of inefficient fossil fuel subsidies that promote wasteful consumption while recognizing the importance of providing those in need with essential energy services.	The EWG will endeavor to complete ten Inefficient Fossil Fuel Subsidy Reform Peer Reviews by 2019 in response to APEC Leaders’ commitment to rationalize and phase out inefficient fossil-fuel subsidies that encourage wasteful consumption. The EWG will regularly share the results and best practices from these peer reviews and undertake workshops with the next workshop in 2015.	EWG	2014	2019

<p>Continuously assess fossil fuel resources in the APEC region and assist economies in effectively bringing those resources sustainably to market.</p>	<p>In response to APEC Energy Ministers' Fukui Declaration, the Expert Group on Clean Fossil Energy (EGCFE) will complete an Unconventional Gas Resources Census for four APEC Member Economies by 2015 to: 1) evaluate the potential of unconventional resources in these economies; and 2) to recommend cooperative actions that could increase natural gas output, boost natural gas trade and use, and moderate the volatility of natural gas prices to the extent appropriate both for producers and consumers. Two of these economies would have substantial experience in identifying and quantifying unconventional gas resources, and two would have significant discoveries and prospects but less experience in cataloguing the resources.</p>	EGCFE	2014	2015
<p>Promote analysis and information exchange related to the maintenance and enhancement of an open, efficient fossil energy market in the region.</p>	<p>The Expert Group on Energy Data and Analysis (EGEDA), in cooperation with other relevant international organizations like the International Energy Agency (IEA), will continue to enhance its collection, analysis and publication of oil, gas and other related energy data on a monthly and annual basis, including its data collection efforts for the Joint Organization Data Initiative (JODI). The EWG will implement the APEC LNG Trade Facilitation Initiative to facilitate the development of further LNG trade in the region by means of knowledge sharing, public-private partnerships and cross-cutting dialogue.</p>	EGEDA	2014	2019
<p>Undertake analysis, research and demonstration to understand the water-energy nexus and share best practices and address associated challenges.</p>	<p>The EGCFE, working with the other Expert Groups, will develop a work program that will provide tools, including modeling capabilities, to APEC Member Economies to assess the impact of energy production and climate change on water quality, use and supply, and disseminate information on best practices and policies. The EWG will look for synergies with other regional projects on sustainable and efficient hydropower.</p>	EGCFE	2014	2019
<p>Enhance the security of energy networks in the APEC region.</p>	<p>The EWG will launch a cyber-energy work stream that will develop a policy and standards roadmap for the APEC region to provide guidance to APEC Member Economies in building reliable, interoperable, efficient, and secure electric grids. Work under this pillar will be initiated through a workshop in 2015 and a follow-on pilot project. Work will be coordinated with the APEC CT Working Group's activities on critical infrastructure.</p>	EWG	2014	2019

Promote Energy Efficiency and Sustainable Communities

<p>Collaborate on product and system standards that enhance energy efficiency and clean energy deployment, while exchanging information on the impact of such standards in order to support achievement of APEC’s goal to reduce energy intensity.</p>	<p>The EWG’s Expert Group on Energy Efficiency and Conservation (EGEEC) will continue to collaborate with the APEC Subcommittee on Standards and Codes as well as relevant international projects such as the Super-Efficient Equipment and Appliance Deployment (SEAD) initiative, and enhance work that can lead to the development of harmonized, compatible and transparent standards for energy efficient products, including those for buildings and appliances. The EWG will also encourage the research cooperation needed to develop such standards and to reliably test products, including through the APEC Regional Building Testing and Rating Centers.</p>	<p>EGEEC</p>	<p>2014</p>	<p>2019</p>
<p>Facilitate the exchange of best low carbon policies, practices and tools among APEC Member Economies to promote the development of sustainable communities across the region.</p>	<p>The LCMT Task force will oversee the completion of three LCMT case studies in three APEC cities over the 2014-2018 timeframe. The People’s Republic of China will establish the APEC Sustainable Energy Centre in 2014 to strengthen pragmatic cooperation and information sharing among APEC Member Economies. In addition, the EGEEC will oversee the launch of a new ESCI pillar on sustainable manufacturing to enhance the energy efficiency of industrial facilities. To initiate work under this new pillar, the United States will share lessons learned under its E3 (Economy, Energy, Environment) initiative, which has served as a leading model for multi-stakeholder collaboration in this area. The APEC EWG and APERC with EGEEC will continue to conduct the APEC Peer Review on Energy Efficiency (PREE) including follow-up reviews, and hold Energy Efficiency Policy Workshops. The APEC EWG will continue to strengthen the outreach of Energy Smart Community Initiative Knowledge Sharing Platform to facilitate the experience sharing of energy smart communities best practices among APEC Member Economies.</p>	<p>LCMT Task force, EGEEC, EWG</p>	<p>2014</p>	<p>2018</p>
<p>Support the development and commercialization of energy efficient technologies in the areas of power generation and distribution, industry, transport, buildings and appliances to support achievement of APEC’s goal to reduce energy intensity.</p>	<p>The EWG will undertake a second tranche of efficiency projects under ESCI to be defined by the EGEEC during 2014 to take into account areas already undertaken in EWG projects that require additional work and areas not yet addressed but that can have a substantial impact on decreasing the energy intensity and overall energy use in the APEC region. Areas such as smart buildings that could have large impacts on the reduction of energy intensity will be stressed.</p>	<p>EWG, EGEEC</p>	<p>2014</p>	<p>2019</p>

Strengthen the reliability, adaptability and interoperability of electric grids in the APEC region to build resiliency and to support achievement of APEC's goal to reduce energy intensity.	Building upon the 12 grid related projects completed and ongoing, the EWG will put onto the Knowledge Sharing Platform the results of its work and look for synergies with international projects such as the International Smart Grid Action Network (ISGAN) as well as activities in APEC Member Economies such as the Sustainable Energy for Remote Indonesian Grids (SERIG) Initiative to exchange information and/or to sponsor component activities especially useful to APEC Member Economies.	EWG	2014	2017
Develop the human resource base within member economies to improve their analytical, technical, operational, and policy capacity in the area of energy efficiency.	The EWG through EGEEC will work with the APEC Human Resources Development Working Group (HRDWG) to first inventory and collect on the Knowledge Sharing Platform work completed by APEC forums relevant to creating the workforce needed in the coming years to create, develop and deploy energy efficiency technology and products, and with the APEC Policy Partnership on Women and the Economy (PPWE) to integrate gender in this work. The EGEEC will then determine and report to the EWG by 2015 what work needs to be undertaken and what information available from APEC or provided by APEC Member Economies needs to be more widely disseminated in an easy to access format.	EGEEC, HRDWG	2014	2015
Develop Cleaner Energy Sources				
Develop the human resource base within APEC Member Economies to improve their analytical, technical, operational, and policy capacity in the area of clean energy development.	The EWG through EGNRET will work with the APEC's HRDWG to first inventory and collect work completed by APEC forums relevant to creating the workforce needed in the coming years to create, and to develop and deploy renewable energy technologies to support the UN Secretary General's SE4ALL initiative by endeavoring to reach an aspirational goal of doubling the share of renewables over 2010 levels in the APEC energy mix, including power generation, by 2030.	EGNRET, HRDWG	2014	2015
Conduct renewable energy resource assessments to facilitate a thorough understanding of renewable energy resource availability in APEC Member Economies.	To this end, the APEC EWG and APERC with EGNRET will continue to conduct APEC Peer Review on Low-Carbon Energy Policies (PRLCE), and will consider cooperation with IRENA.	EWG	2014	2019

Facilitate joint research and development on clean fossil energy technologies that are adapted to the needs of APEC members, as well as demonstrate and disseminate appropriate clean fossil energy technologies.	EGCFE will identify the priority R&D needs among APEC Member Economies in the area of clean fossil energy technologies and lay out a program to respond to these needs, together with a timetable for delivering the results, by 2019. The EWG will look into exploring issues related to gas pricing, infrastructure and LNG trading issues, given the importance of gas in the Asia-Pacific region.	EGCFE	2014	2019
Increase understanding of the relevant clean fossil energy technologies including carbon capture, use and storage (CCUS), promoting their efficient use, and facilitating access to these technologies by encouraging information exchange.	The EGCFE will elaborate the Advanced Clean Coal Technology Deployment Initiative Action Plans for several APEC developing economies, and the EGCFE will aim to integrate the results of completed clean coal technology (CCT) development and deployment projects to date, as well as projects currently in progress and planned, into a CCT deployment manual aimed at deployment capacity building in developing APEC Member Economies by 2015.	EGCFE	2014	2016
Facilitate the exchange of best policies, practices and tools in the area of clean energy financing.	Building upon prior work on financing, the EWG will conduct an APEC Public - Private Dialogue on Addressing Impediments in Financing Renewable Energy. Additional projects, studies and best practices will be developed as needed through 2019 in close concert with the Asian Development Bank and other entities financing clean energy projects in the region.	EWG	2015	2019
Educate industry, financial institutions, governments, technical assistance providers and educational institutions on the benefits of clean energy and the issues associated therewith.	Many financial institutions and technical assistance providers do not prioritize lending for clean energy or climate related projects. The EWG in 2015 will explore the major constraints to such financing (e.g., risk mitigation, fossil fuel subsidies) with these entities and determine which education or policy actions might be useful to stimulate such lending.	EWG	2015	2019
Engage in clean energy technology assessment and related activities to demonstrate the cost-effectiveness of clean energy applications.	The EWG will work with APEC Member Economies to collect and disseminate results of regional or economy-specific demonstration projects on cost-effective clean energy applications and undertake in other such activities to assess the real-world performance of clean energy technologies in different climates and applications. The work will commence with a workshop on biodiesel application experiences in 2015.	EWG	2015	2017

Facilitate improved reliability and stability in the provision of clean energy supply to meet demand.	The EWG will continue to undertake work on the integration of renewables into the grid and grid-related energy storage. On the Knowledge Sharing Platform's smart grid site, EWG members will post results of work on this issue within their economy or from international and regional activities in which they are involved. The EWG will encourage APEC Member Economies to actively share best practices and open their demonstrations to visits by APEC officials and students.	EWG	2014	2019
Prosperity through Trade, Investment and Economic Growth				
Study how the APEC region can improve economic competitiveness and achieve sustainable development, while at the same time addressing energy security and environmental concerns.	To this end, the APEC EWG and APERC will conduct in-depth analysis of changing energy landscape and energy prices on the competitiveness of both consuming and producing economies and identify policy recommendations. Workshops on energy and economic prosperity will be held to exchange views.	EWG	2015	2019
Identify significant barriers to energy trade and investment in the APEC region by seeking the business community's input on priority trade and investment barriers in the energy sector.	Working with the APEC Committee on Trade and Investment (CTI) and the APEC Business Advisory Council (ABAC), the EWG will seek to identify significant remaining barriers for consideration as appropriate by the CIT. Representatives from the EWG intend to attend an ABAC meeting in 2014 to kick off this process.	EWG, APEC CTI	2014	2019
Build APEC member capacity to address barriers to energy trade and investment.	The EWG will continue to work with other APEC groups on environmental goods and services (EGS) issues especially with the Market Access Group (MAG) through the EGEEC. The APEC Policy Partnership on Women and the Economy (PPWE) will be utilized to address gender barriers to energy trade and investment opportunities in 2014. The EWG will also continue to provide assistance as requested to the Automotive Dialogue on issues related to advanced energy efficient vehicles.	EWG, EGEEC, MAG PPWE	2014	2019
Promote accessibility and transparency in the formulation and administration of energy sector investment-related policies.	The EWG will invite the Investment Experts' Group (IEG) under the CTI to brief it on its activities; and to jointly develop a set of best practices for investment in energy, especially unconventional and renewable energy.	EWG, CTI/IEG	2015	2016
Enhance consistency of policies affecting energy trade and investment across the APEC region.	The EWG will remain open to requests for assistance from other APEC trade and investment forums.	EWG	2014	2019

<p>Support the development and commercialization of clean energy technologies so as to make them economically viable in a wide range of applications, and increase trade.</p>	<p>In 2015, the EWG will analyze the development of a band of cost ranges for renewable energies including wind, water, solar and geothermal to better understand progress towards commercialization. APEC demonstrations and capacity building projects and workshops will occur annually and, when possible, will be coordinated with the East Asia Summit's Renewable and Alternative Power Generation Workstream and ASEAN's Renewable Energy Sub-Sector Network that have similar goals for the region.</p>	<p>EGNRET</p>	<p>2014</p>	<p>2019</p>
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