



APEC Peer Review on Energy (APRE)

a) Continuation of PREE and CEEDS

APEREC Workshop at EWG 40

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Asia-Pacific
Economic Cooperation



Outline

APEC Peer Review on Energy (APRE)

- a) **Continuation of PREE** (Peer Review on Energy Efficiency) and **CEEDS** (Cooperative Energy Efficiency Design for Sustainability)
- b) **Follow-up PREE** *by Dr. Tran, APERC.*
- c) **Peer Review on Low-Carbon Energy Policies (PRLCE)**.
by Mr. Chandran, APERC.

APRE is designed to fulfill the APEC Energy Ministers' and Leaders' instructions by providing "*Peer Review Mechanisms*".



A-1 Three Main Activities under the APRE

A. APEC Peer Review on Energy (APRE)

1. Three Main Activities under the APRE

(a) Continuation of PREE/CEEDS, b) follow-up PREE, and c) PRLCE)

2. Preamble: *“APEC Peer Review Mechanisms”*

B. PREE (Peer Review on Energy Efficiency) and CEEDS (Cooperative Energy Efficiency Design for Sustainability)

1. Progress & Continuation of PREE

2. Progress & Continuation of CEEDS

CEEDS Phase 3: “Energy Efficiency Policies in the Transportation Sector”

3. Conclusion



A-2-1 Preamble: “*APEC Peer Review Mechanisms*”

APEC Energy Ministers’ 2007 Darwin Declaration:

“We directed the APEC Energy Working Group (EWG) to develop a ***Voluntary Energy Peer Review Mechanism***, with an initial focus on progress toward attaining energy efficiency goals”

APEC Leaders’ 2007 Sydney Declaration:

“We agreed on the two specific initiatives: 1) to facilitate and review progress through the *voluntary* APEC Energy Peer Review Mechanism, with a report back to APEC Leaders; and 2) to work towards achieving an APEC-wide goal of a reduction in energy intensity of **at least 25 percent by 2030** (with 2005 as the base year)”



A-2-2 “APEC Peer Review Mechanisms” for PREE and CEEDS

APEC Energy Ministers’ 2010 Fukui Declaration:

“We commend the **Peer Review on Energy Efficiency (PREE)** which has been successfully carried out for four APEC economies and urge additional economies to participate”.

“We Instruct the EWG and APERC to keep promoting energy efficiency through the **Peer Review on Energy Efficiency (PREE)** and the **Cooperative Energy Efficiency Design for Sustainability (CEEDS)**, and to consider **follow-up efforts** including capacity building activities, policy research support and **processes to gauge the success** of member economies’ efforts to implement the recommendations of these programs”.



A-2-3 “APEC Peer Review Mechanisms” for PRLCE

APEC Energy Ministers’ 2010 Fukui Declaration:

“We instruct the EWG to explore mechanisms to encourage economies to set individual goals and action plans for introducing *low-emission power sources**, with assistance from APERC and relevant technology expert groups”.

18th APEC Leaders’ 2010 Yokohama Declaration:

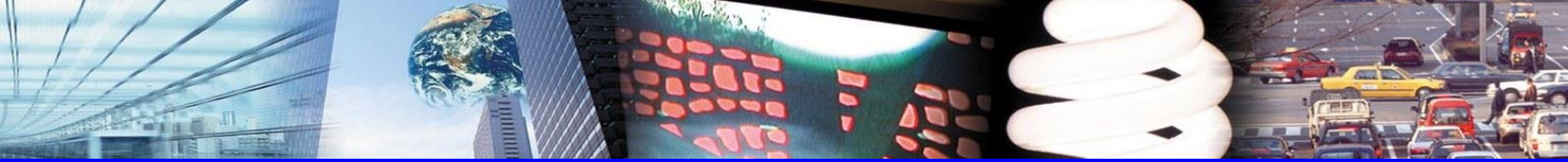
“We will promote *energy-efficient transport*”. “We will promote deployment of *low-emission power sources* – renewables, nuclear and fossil fuels with carbon capture and storage (CCS)- to make our energy supply cleaner. We will create *low-carbon communities* in the region”

* “*low-emission power sources*”: renewable energy, nuclear and CCS



A-2-4 Fundamental Goals of “APEC Peer Review Mechanisms”

To enable APEC economies to share experiences and knowledge, and learn “high –performance” strategies from their *peers* by *setting* goals, *formulating* action plans, and *improving* the effectiveness of current policies in promoting EE and Low Carbon Energies, as well as *providing* useful *recommendations* for voluntary EE and Low Carbon Energies, together with *alternatives* to overcome the impediments in the current plan towards a *more secure and sustainable energy future* for APEC.



B-1-1 Current Progress of PREE

PREE (Peer Review on Energy Efficiency)

“Value-added” to volunteer economies

- Provide a *broad review* of EE policies and measures for more effective EE policies
- Provide *recommendations* on how implementation of action plans could be improved to achieve EE goals

Progress

- In 2009, the first four PREEs for **New Zealand, Chile, Viet Nam** and **Thailand** were undertaken. In 2010, the PREEs for **Chinese, Taipei** was conducted, then followed by **Peru** and **Malaysia** by early December 2010.
- The reports made a number of *recommendations* that have been welcomed by the participating economies, indentifying *barriers* – *financial, technical* (e.g. end-use data, experts, standards, monitoring and evaluation, product testing) and *political*.



B-1-2 Continuation of PREE

Continuation of PREE

- PREE will be continued to cover more economies as instructed by EMM9 in Fukui.
- The additional two PREEs will be conducted in 2011.
- Recently **Indonesia** has shown her interest to host the next PREE.

PREE reports are published on the APERC website (<http://www.iej.or.jp/aperc>)



NZ



Chile



Viet Nam



Thailand



Chinese, Taipei



B-2-1 Current Progress on CEEDS

CEEDS (COOPERATIVE EE DESIGN FOR SUSTAINABILITY)

“Value-added” to volunteer economies

- Supplementing to PREE, CEEDS provides an *in-depth* peer review of EE policies in a single sector for several economies through interactive workshops with a focus on how to overcome *barriers* to the implementation of EE policies in achieving APEC-wide EE goals.

Progress

- CEEDS Phase 1 focused on *Appliance EE Standards and Labeling* with 6 economies: Chile, China, Malaysia, Philippines, Thailand and Viet Nam hosted by Chinese Taipei and Japan with analysis on saving potential
- CEEDS Phase 2 hosted by Thailand and will be hosted by Hong Kong, China in Jan 2011, is in progress, focusing on *Building Energy Efficiency Codes and Labeling* with 5 economies: China, Indonesia, Malaysia, Mexico, and Vietnam.



B-2-2 Continuation of CEEDS

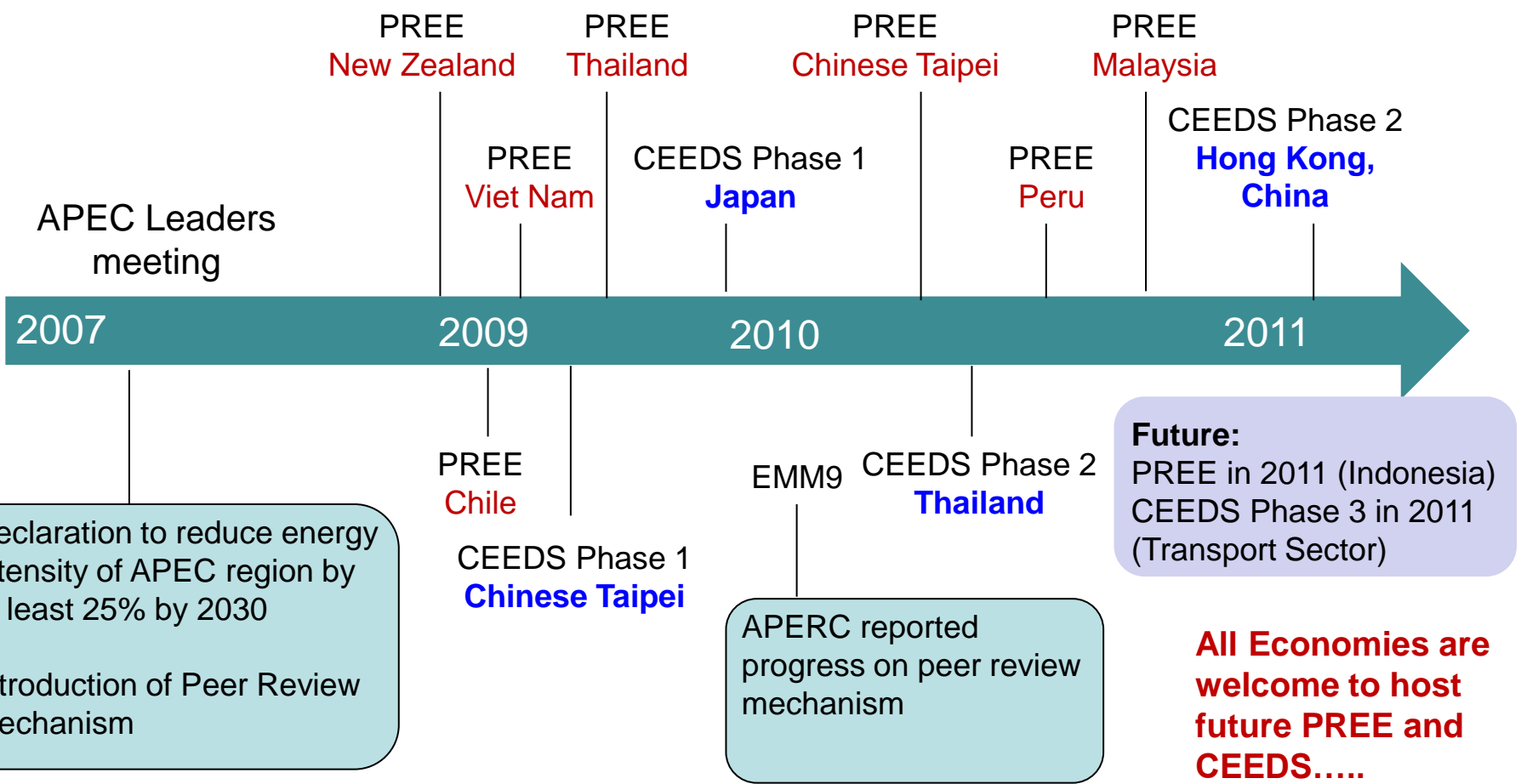
Continuation of CEEDS

- CEEDS Phase 3 is planned to deal with “***Energy Efficiency Policies in the Transportation Sector***” in APEC Economies, as guided by **2010 APEC Leaders Meeting in Yokohama**.
- A more specific focus, such as *vehicle fuel efficiency standards and labeling; transit-oriented urban design including bus transport services, traffic management, road pricing; as well as truck transport, rail modernization and reform, and intercity passenger transport* will be determined in consultation with prospective host economies.
- The first CEEDS Phase 3 workshop is tentatively scheduled in *September 2011** , with the second workshop tentatively scheduled in early 2012.

* preferably back-to-back to the 1st Joint Energy and Transport High Official Meeting in San Francisco



B-3-1 Conclusion: PREE and CEEDS Activities so far..





B-3-2 Conclusion: APEC Peer Review on Energy (APRE)

- To facilitate APEC economies to develop **goals for promoting EE and Low Carbon Energy (LCE)** and formulate **action plans**, through *APEC Peer Review Mechanisms* (e.g. PREE, Follow-up PREE, CEEDS, PRLCE) for the achievement of the APEC-wide goal of EE and RE improvement, as instructed by APEC Ministers and LEADERS.
- To serve the need of volunteer economies in identifying ***effective policies and best practices for promoting EE and LCE*** as well as ***barriers***, and carefully providing ***policy recommendations*** on alternatives to overcome existing impediments in their current plan.

To call for action, an ***“APEC-wide EE and LCE Implementation Now”***
is urgently needed..



b) FOLLOW – UP PEER REVIEW ON ENERGY EFFICIENCY

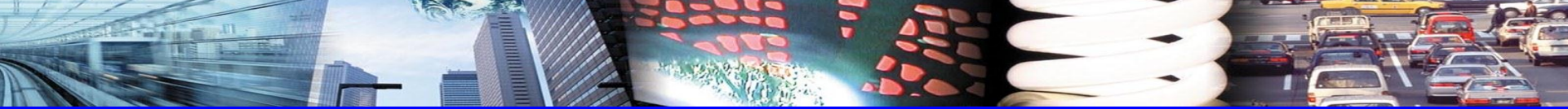
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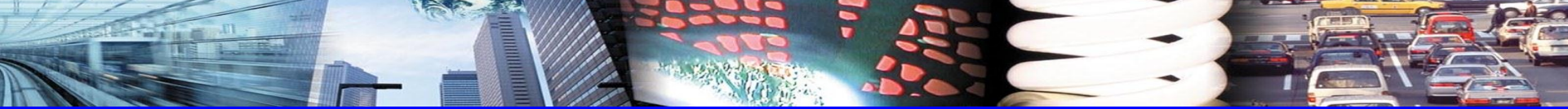
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Background (1)

➤ **The follow up PREE project responds directly to the APEC EMM9 declaration in Fukui, Japan**

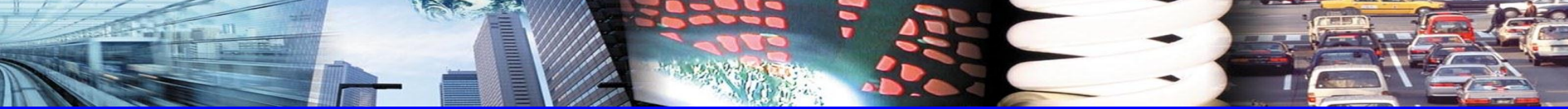
“The EWG and APERC to keep promoting energy efficiency through the Peer Review on Energy Efficiency (PREE) and the Cooperative Energy Efficiency Design for Sustainability (CEEDS), and to consider follow-up efforts, including capacity building activities, policy research support and processes to gauge the success of member economies’ efforts to implement the recommendations of these programs”.



Background (2)

➤ **Lessons learned from PREEs**

- 1. Need for monitoring and evaluation of progress toward the goals of the energy efficiency action plans.*
- 2. Several APEC economies lack the analytical methods and human capacity to monitor and evaluate the implementation of their action plans.*
- 3. Need for a project to assist the APEC developing economies to implement the recommendations by the PREE review team.*



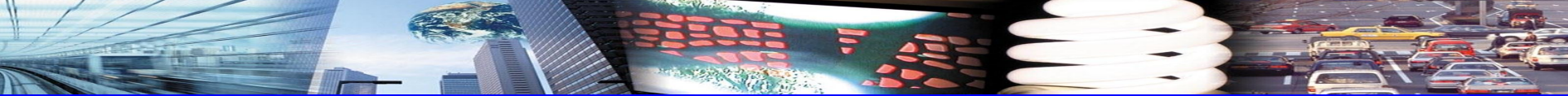
Objectives

➤ **General objective**

Assist one former PREE host economy in implementing the recommendations of the PREE review teams

➤ **Key objective of the 1st follow up PREE**

1. Assist the APEC economies by establishing the analytical methods for evaluating and monitoring the implementation of their existing energy efficiency action plans.
2. Transfer know-how on the analytical methods.



Relevance

➤ Why should APEC undertake this project?

- 1. By achieving the key objective, the follow up PREE will fill the gap between the implementation of EE action plans and the monitoring and evaluation of those plans in the APEC economies*
- 2. The project will contribute to strengthening APEC economies' efforts in promoting energy efficiency improvement that envisaged by APEC leaders.*



Methodology (1)

➤ How do you plan to implement the project ?

- 1. Establish the analytical methods and reporting mechanism to monitor and evaluate energy efficiency plans/strategy.*
- 2. Work with one volunteer economy (i.e. Viet Nam in 2010) to transfer know how and apply the analytical methods.*
- 3. Organize the Workshop on know how transfer through the training program.*



Methodology (2)

➤ **The analytical tools include:**

- 1. Training materials: Decomposition method; issues related to evaluation and monitoring; reporting mechanism, best practices for E&M; etc.*
- 2. Practice in use of software for decomposition method*

➤ **Expected project timelines**

The project timelines and major milestones (next slide)



Timelines

	Actions	Month (fiscal year)											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Prepare, establish analytical methods and reporting mechanism												
2	Visit economy to transfer know how												
3	Draft final report to EWG												
4	Publish the report on website												



Beneficiaries and Stakeholders

➤ **The project's target audience and relevant stakeholders (APEC and non-APEC)**

The target participants for the workshop: 15-20 participants from host economy (policy makers, planners) who are involved in the design and implementation of EE policies and programs.

Expert speakers from APEC and non-APEC economies

1. Output of the project

2. *A Report on the workshop*

3. *A package of methods for the monitoring and evaluation*

These output will be published on the APEC as well as APERC website.



Linkage of PREE, CEEDS and Follow up PREE

PEER REVIEW
- REVIEWS IN VOLUNTEERED ECONOMIES
- REVIEW REPORTS WITH RECOMMANDATIONS

CEEDS

Follow-up PREE

EE on Appliances & Equipment (S&L)

EE in Buildings (Building codes)

EE in Transportation

Monitoring and Evaluation

Topic selection
(based on recommendations by peer review Teams and request by the host economy)



Workshop , Meeting, etc.
(APERC consults with the host economy)



c) Peer Review on Low-Carbon Energy Policies(PRLCE

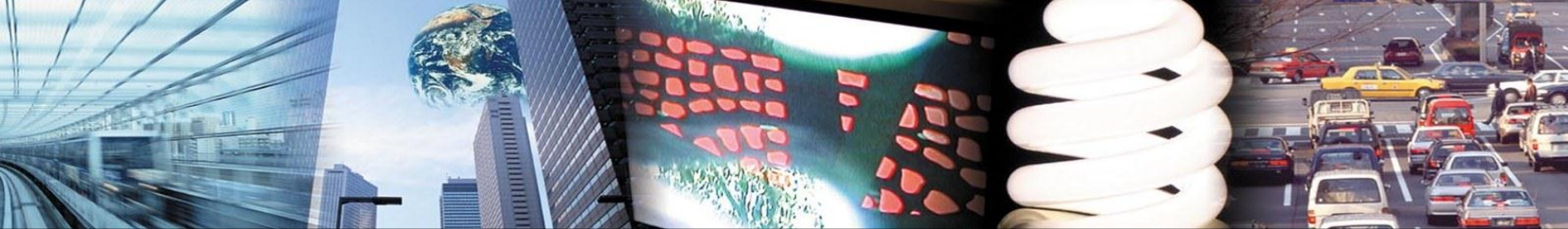
by

Chandran Sundaraj

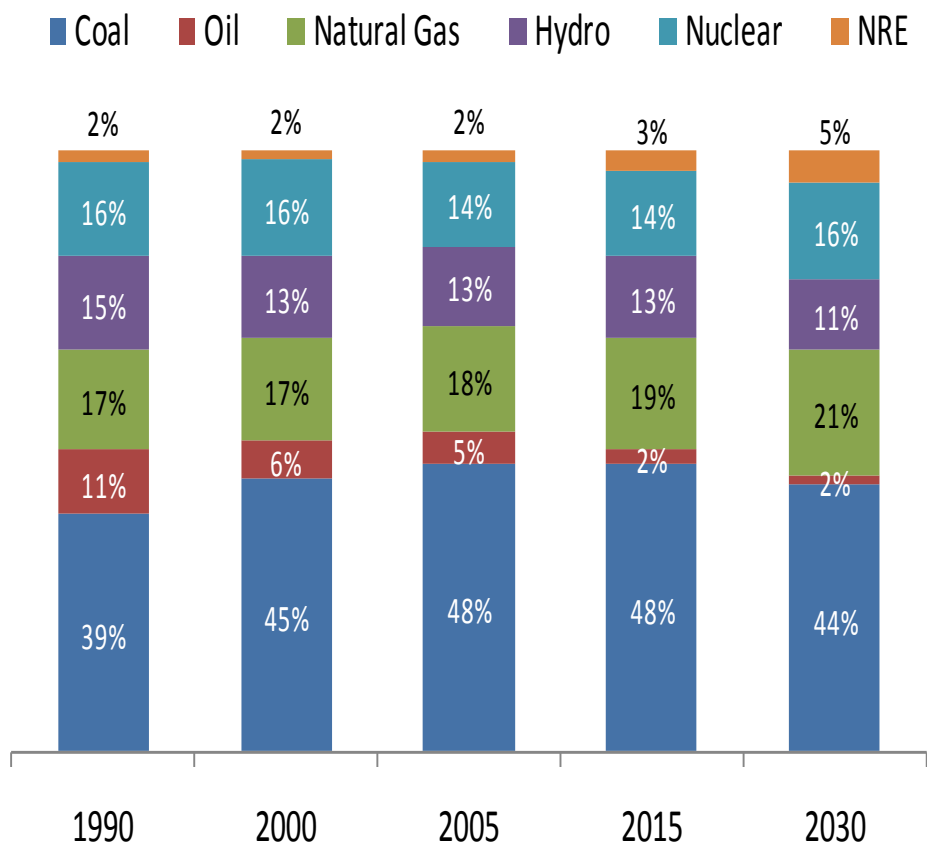
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Background



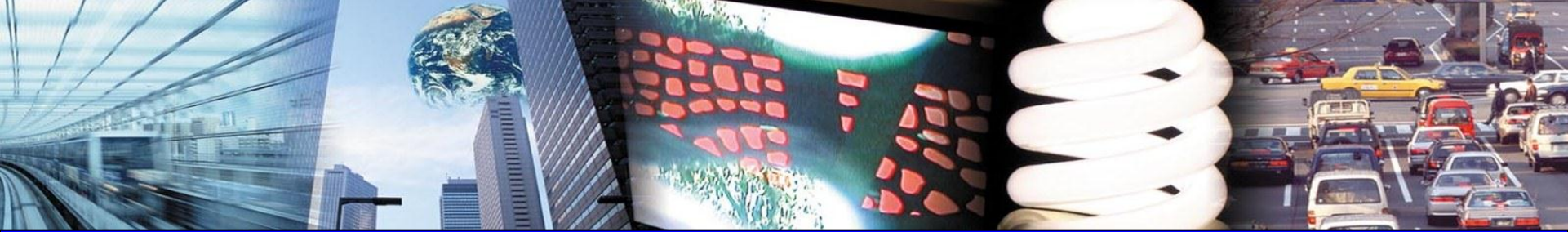
The fuel-mix of generated electricity in APEC region (source: APERC, 2009)

In 2005, fossil fuels, coal, oil & natural gas, accounted for 71% of power generation in APEC region.

- The fossil fuels' shares are projected to reach 67% by 2030 under a 'business-as-usual' scenario.

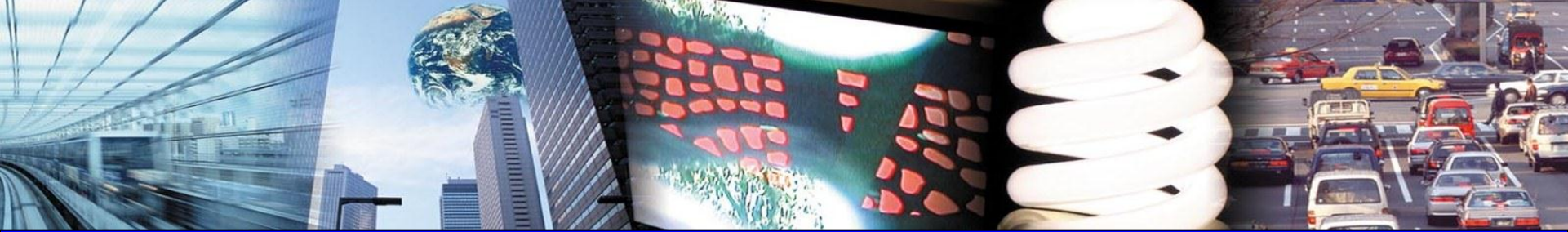
- Factors such as security of supply, cost, and availability will continue the use of the fossil fuels.

- Decarbonisation by increasing the share of low-carbon sources will lead to a sustainable energy path



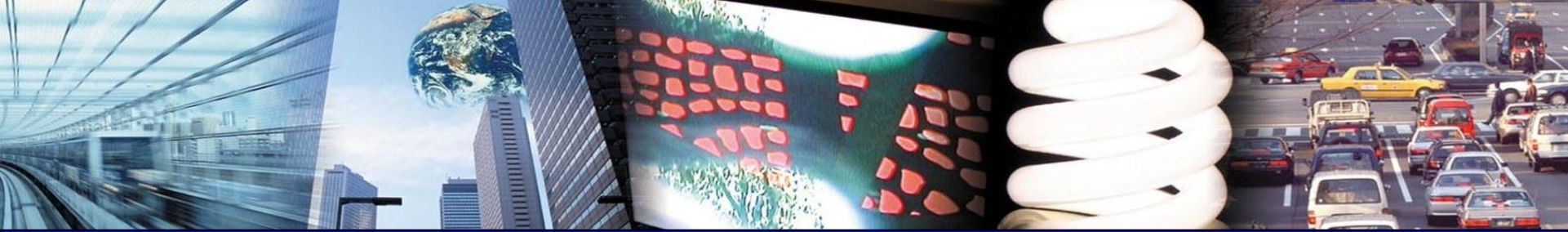
Background

- APEC Energy Ministers at their 9th Meeting in Fukui, Japan in 2010 instructed EWG to explore mechanisms to encourage APEC economies to set individual goals and action plans for introducing low-emission power sources.
- The Ministers also wanted EWG with assistance from APERC and relevant technology expert groups to use the success of Peer Review on Energy Efficiency (PREE) as the guidance.



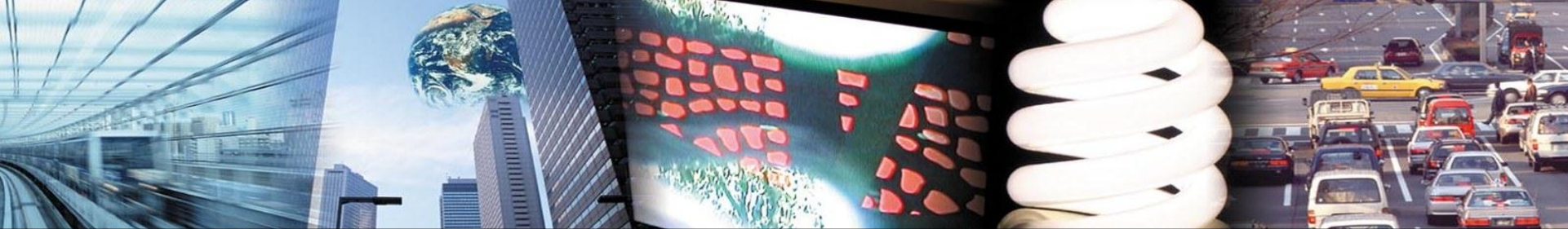
Objectives

- ❑ Share experiences and knowledge of APEC member economies in promoting low-emission power sources by goals and action plans setting;
- ❑ Encourage APEC economies to set individual goals to promote more power supply from low-emission sources and to formulate actions to achieve the goals by recommending a set of diversified possible strategies that suits the circumstances of individual member economies; and
- ❑ Provide voluntary expert recommendations to enhance existing strategy and improve existing action plans to promote low-emission power sources.

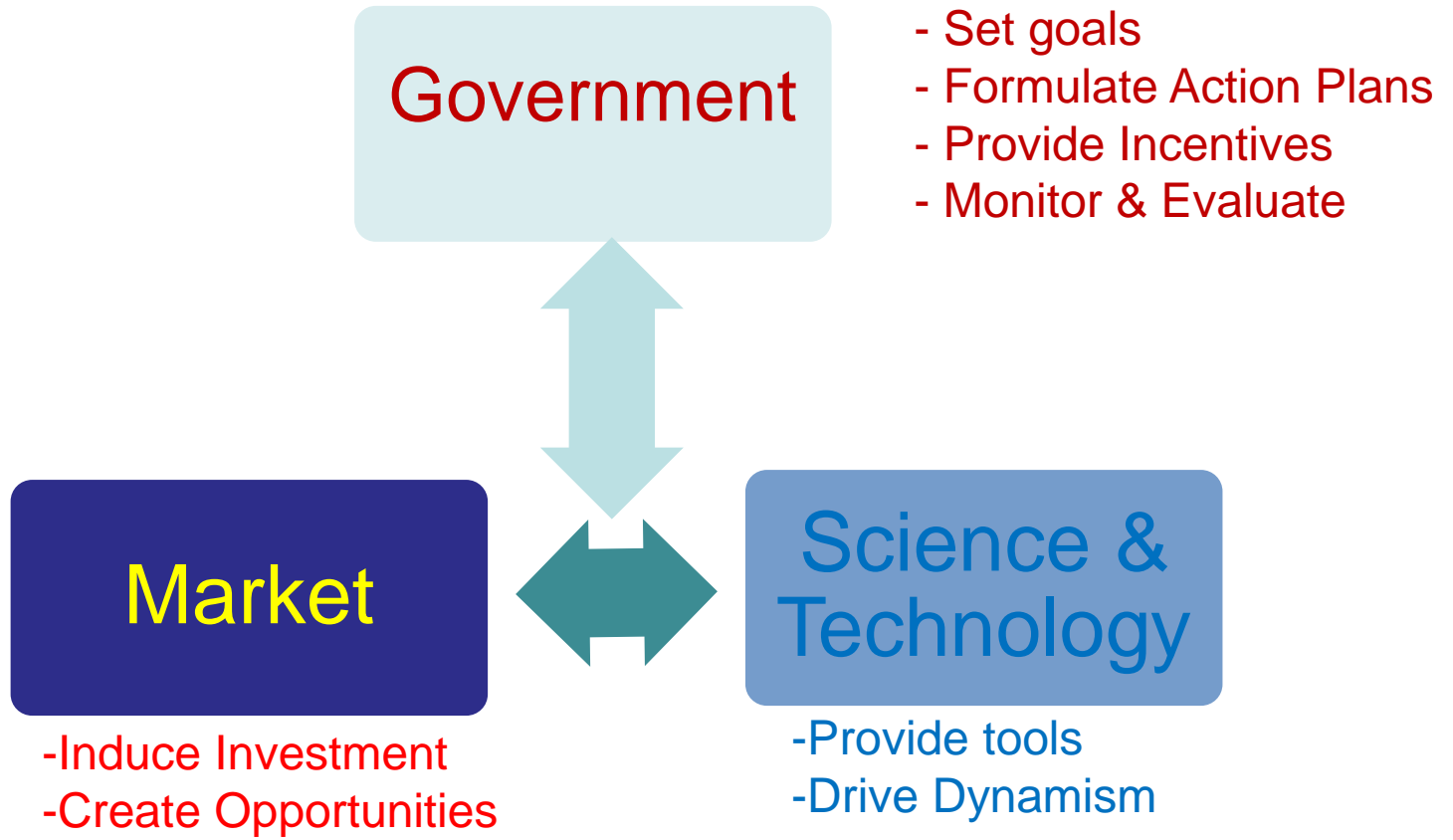


Relevance

- The development of low-emission power sources is strongly depending upon government supports through economic and regulatory policies. As such, the importance of goals and action plans are:
 - to create a clear policy framework on low-emission power sources promotion ;
 - to define adequate and proper allocation of resources;
 - to identify the responsibilities and level of contributions; and
 - to monitor and evaluate the effectiveness and efficiency of policy tools.



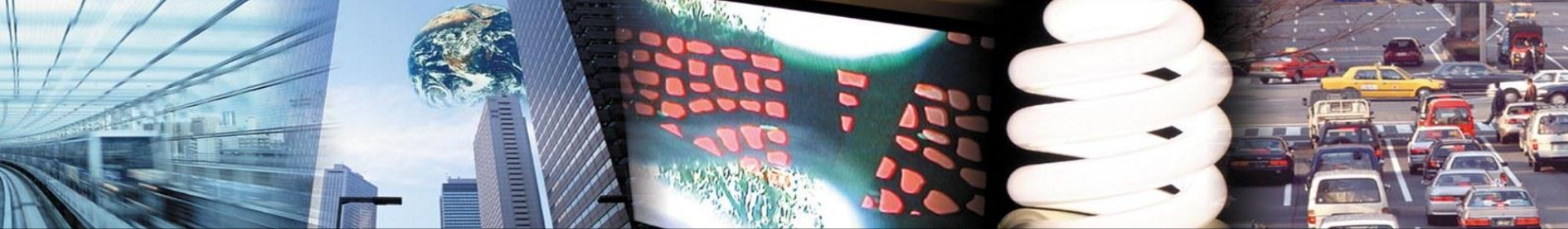
Goals and Action Plans Setting





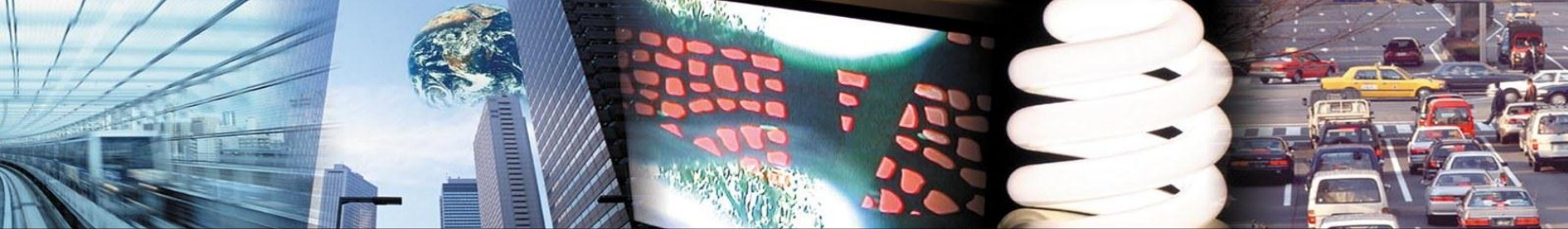
Methodology

- ❑ The peer review mechanism is built upon the idea that APEC economies can be guided to a sustainable energy future by sharing and informing their peers' efforts to achieve a sustainable energy future.
- ❑ The review will be designed to bring as many as possible of peers' experiences and knowledge of promoting low-emission power sources by setting goals and action plans.
- ❑ The review process criteria and guidelines will be prepared by APERC with experts from member economies and endorsed by EWG.



Key Events and Timelines

No	Actions	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
1	Peer review mechanism												
1.1	Prepare peer review guidelines	■	■	■									
1.2	Seek endorsement on the guidelines				■								
1.3	Preparation for peer reviews (in a fiscal year)												
1.3.1	Economy 1 (● indicates review visit)					■	■	■	●				
1.3.2	Economy 2 (● indicates review visit)						■	■	■	●			
1.4	Finalise reports and seek endorsement										■	■	
1.5	Publish the reports on websites												■



Beneficiaries and Stakeholders

Project Participants	Roles and Responsibilities
APEC Member Economies	Beneficiaries of the project. APEC economies would cooperate with APERC to provide the relevant data and information for the project
EWG	Stakeholder of the project. EWG would review and endorse the outputs of the project
APERC	Coordinator and implementor of the project



Thank You

***PREE Reports
Compendium Report
CEEDS Phase 1 and 2 Reports
Report on Pathway to Sustainability***

are available in APERC website

<http://www.ieej.or.jp/aperc/>