

The 46<sup>th</sup> APEC Expert Group on Energy Efficiency and Conservation Meeting Cebu, Philippines, 31 August – 1 September 2015

# PREE Update - Trial Energy Efficiency Policy Workshop and policy compendium

Martin Brown-Santirso
Researcher, Asia Pacific Energy Research Center





## **APERC Background**

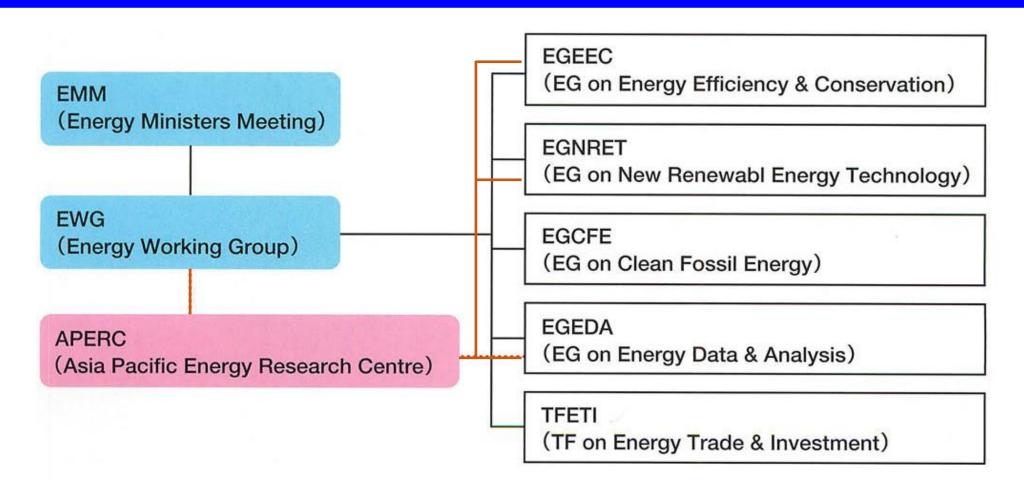
APERC was established in Tokyo in 1996 after the Osaka APEC leaders meeting in 1995

### Primary Objectives:

- Understanding of APEC Supply and Demand trends
- Energy infrastructure development
- Energy regulatory reform
- Advocates rational policy making
- Enhance capacity building



## **APERC Background**





## **APERC Background**

### **APERCs key activities:**

- APEC Energy Demand and Supply Outlook
- APEC energy overview
- Cooperative Energy Efficiency Design for Sustainability (CEEDS)(Discontinued)
- Peer Review on Energy Efficiency (PREE)
  - Energy Efficiency Policy Compendium
  - Energy Efficiency Policy Workshop
- Low Carbon Model Town (LCMT)
- Peer Review on Low-Carbon Energy Policy (PRLCE)
- Oil and Gas Security Initiative (OGSI)



## **CEEDS Background**

- Initiated by the Energy Ministers in the 2010 Fukui declaration, the project aims to improve capacity on energy efficiency policy for developing economies
- Cooperative Energy Efficiency Design for Sustainability (CEEDS) project:
  - Two capacity building workshops concentrating on a single topic
  - Resource intensive
  - Inconvenient for attendees

### ➤ Energy Efficiency Policy Workshop as a part of PREE

- Focus on single topic
- Deliver concentrated learning
- Reduced burden for APERC and attendees



## **PREE in 2015**

- From 2015 PREE will include three components:
  - Peer review or Follow-up peer review for travel eligible economies
  - Energy Efficiency Policy Workshop
  - Energy Efficiency Policy Compendium
- In 2015 Thailand had a Follow-up PREE Presentation to follow
- Energy Efficiency Policy Workshop in Singapore
- Compendium process begins in September
- APERC is looking for volunteers to host PREE in 2016
  - PREE China, Mexico, Papua New Guinea, Russia
  - Follow-up PREE Chile, Indonesia, Malaysia, Peru



- Held in Singapore, 23 March 2015
- Self-funded by APERC
- Hosted in conjunction with EGEE&C 45
- Focusing on energy efficiency policy basics: EE Policy and Funding





- 49 attendees
- 12 APEC economies :
  - China, Thailand, US, Mexico, Peru, Philippines, Russia, New Zealand, Indonesia, Singapore, Vietnam, and Korea
- Delivered by expert consultant
  - Concept Consulting (NZ)
- Included 5 international speakers:
  - Castlerock Consulting Scaling up Investment in EE
  - Katarina Uherova Hasbani Super ESCO
  - Dr. Ponpang Vorasayan Thailand Experience
  - Mr Kwek Chin Hin Singapore Industrial EE Experience
  - Ms Wendy Li Singapore Experience with Buildings



- Prototype Workshop
  - Length
  - Dynamics
  - Topic
  - General Interest
- Good Response
  - High ratings
  - Continued interest
  - Constructive feedback
- Strong interest on follow ups

Relevance	1.91
Applicability	1.95
Delivery	1.95
Pace	2.18
Instructor	1.91
Material	1.82
Further WS	1.64



- APERC gathered feedback
  - Future topic selection
    - Leveraging international funding
    - Leveraging private and green funds
    - Measuring policy impacts
    - Applying behavioural economics to EE
  - Workshop dynamics
    - Explore topics in more depth
    - More discussion time

Funding Mechanisms for EE Theory and Practice – Advanced Super ESCO - Expert management - Buildings - Intermediate EM in industrial sector Strategies and action plans Leveraging PS in EE programme design - INT Cost-effective energy saving potential by sector per economy - INT Funding mechanisms - AVD Private sector engament (funding, tech, implementation) - INT **APEC** experiences Policy instruments for EE in transport sector - INT Policy Evaluation - ADV Green financing - ADV **Energy Management Policy - ALL Levels** Fuel economy regulation - ALL levels Collaborating with international forums - INT Leveraging international resources to finance EE - ADV Policy impact measurement - INT Earmarked taxes specific discussion - pros cons, how etc. -ADV MV&E for EESL programmes - ADV Behavioural economics + EEP - INT Developing best practice for business cases for EEP investment - INT development of S and L Super ESCO from Banking persepective - INTRO Super ESCO from company overview



## Next steps

- Next Energy Efficiency Policy Workshop
  - Aligned with EGEE&C 47 on the first half of 2016
  - One day workshop Topic still to be determined
  - Incorporate feedback from last workshop
  - APERC will continue to gather feedback to keep EEP relevant



### **Energy efficiency policies**

### Regulations

- **MEPS**
- energy audits & mar
  - **Utility obligations**

#### Fiscal measures

- Grants, subsidies, tax incentives
- Direct procurement of EE

#### Promotional / market transform

- Info campaigns
- Labelling / certification

#### Financial remediation

- Revolving funds
- Contingent financing

### Capacity building

- Creation of ESCOs
- Training programmes

### Pricing mech.

Tiered tariffs

#### Tech dev't

Research, dev't & demonstration

### Foundations for energy efficiency

Enabling frameworks

Institutional arrangements

Co-ordination mechanisms

Laws and decrees

Implementing agencies

Governmental co-ordination

Strategies and action plans

Resourcing requirements

**Targets** 

Role of energy providers

Stakeholder engagement

Monitoring & evaluation

Funding mechanisms

Public-private cooperation

International assistance

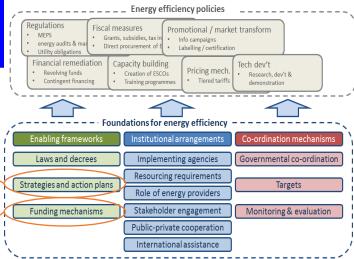


### Strategies and action plans

- Key elements
- Differences between strategies & action plans
- Learnings from overseas
- Best practice policy development
- EE barriers / policy justification
  - 'Classical' economics
  - Behavioural economics
  - Rebound / take-back

## Funding mechanisms

- Description of options
- Advantages and disadvantages
- Learnings from overseas





### **Energy efficiency policies**

### Regulations

- MEPS
- energy audits & mar
  - Utility obligations

#### Fiscal measures

- Grants, subsidies, tax incentives
- Direct procurement of EE

#### Promotional / market transform

- Info campaigns
- Labelling / certification

#### Financial remediation

- Revolving funds
- Contingent financing

### Capacity building

- Creation of ESCOs
- Training programmes

### Pricing mech.

Tiered tariffs

#### Tech dev't

Research, dev't & demonstration

### Foundations for energy efficiency

**Enabling frameworks** 

Laws and decrees

Strategies and action plans

Funding mechanisms

Institutional arrangements

Implementing agencies

Resourcing requirements

Role of energy providers

Stakeholder engagement

Public-private cooperation

International assistance

Co-ordination mechanisms

Governmental co-ordination

Targets

Monitoring & evaluation



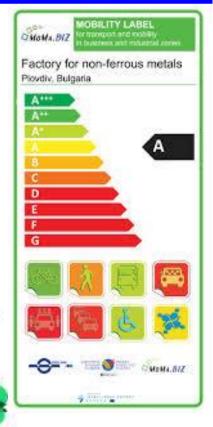
## Compendium 2015

- The Compendium was set up as part of PREE to
  - compile and maintain a compendium of energy efficiency policy measures and action plans of all APEC member economies under a common format:

http://aperc.ieej.or.jp/publications/reports/compendium.php

In 2014, PREE was not carried out as budget bid was unsuccessful

The Compendium will be updated again in 2015





## **Compendium 2015 Process**

Information Request

(Sept 2015)

Data gathering

(4-6 Weeks)

Compilation and review

(4 Weeks)

Publication

(December 2015)



## **Compendium 2015 Process**

- Information request sent to EWG and EGEEC delegates
- Two key items:
  - Update prior economy chapter
- Update table
- Example: Australia 20 pages

\*While improvement of energy efficiency (EE) can be achieved through a number of means, such as goals to reduce CO<sub>2</sub> emissions, this

Summary Table for Compendium of Energy Efficien

### AUSTRALIA

#### GOALS FOR EFFICIENCY IMPROVEMENT

#### 1.1. Overall Energy Efficiency Improvement Goals

Policies and measures to improve energy efficiency in Australia are undertaken at Australian Government and State level and are outlined below. Coordination of cross-jurisdictional policies and programs occurs through the National Strategy on Energy Efficiency (NSEE).

The Australian Government released the Energy White Paper 2012, Australia's energy transformation, on 8 November 2012. The Energy White Paper (EWP) sets out a strategic policy framework to address the challenges in Australia's energy sector and position the country for a long term transformation in the way it produces and uses energy.

Economy	Overall goals	Goal year	Base year	Sectoral goals	Goal year	Base year	
Australia	Overall 20% renewable energy	2020					Action plans The National Strategy for Energy Efficiency (NSEE) is the overarching program of work for promoting energy efficiency in Australia. The Clean Energy Furture Package, which includes a carbon price scheme and other support programs, came into effect in July 2012.  Measures Industry: 1) Businesses using more than 0.5 PJ of energy a year are required to conduct an energy efficiency opportunities assessment and report the results publicly; 2) Increasing skills through training; 3) Assistance for energy intensive business.  Transport: 1) Fuel consumption labelling standards; 2) Plans to develop standards to improve the fuel efficiency of the Australian vehicle fleet.  Residential: 1) Establishment of the Greenhouse and Energy Minimum Standards Act 2012 to implement nationally Minimum Energy Performance Standards (MEPS) and Labelling for appliances and equipment; 2) Energy Star endorsement labelling; 3) Phasing out of inefficienct light bulbs and hot water systems to be replaced with high efficiency solar, gas or electric heat pump systems; 4) Introduction of higher house energy efficiency rating and higher building standards from 2011.  Commercial: 1) Significantly increase over time the stringency of energy efficiency provisions for all commercial buildings starting in 2010; 2) Mandatory disclosure of up to date energy efficiency ratings of commercial buildings where most sellors or lessors have office space of 2000 squared meters or more.  Power: Generator Efficiency Standards program (in partnership with the Australian Government).  Government: Improving the operational performance of buildings leased by the government.  Other: 1) National Energy Efficiency Skills Initiative (NEESI); 2) Plans to strengthen energy audit and assessment capabilities; 3) Tax measures-expenditure on capital equipment, which may improve energy efficiency, is generally deductible under capital allowance provisions, 4) Subsidies for Low Carbon Communities provided to support local councils and operators of community facilitie



## Next steps

APERC requests your kind cooperation to:

Find appropriate respondents
Ensure responses are timely
Provide feedback for Workshop topic
Consider volunteering for PREE



## Thank you for your kind attention

http://aperc.ieej.or.jp