



APEC Energy End-Use Data Collection

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APEC: Asia Pacific Economic Cooperation (21 Economies)



- An open framework for regional economic cooperation among 21 member economies
- Cooperative and voluntary basis
- Activities for trade and investment liberalization, business facilitation, and economic and technical cooperation

Source: <http://apec2015.ph/about-apec/primer/>

Source: APERC Brochure (June 2015)

■ 1989
 ■ 1991
 ■ 1993
 ■ 1994
 ■ 1998
FIGURE 1. APEC Member Economies classified based on their year of membership.
SOURCE: APEC at a Glance, 2012.

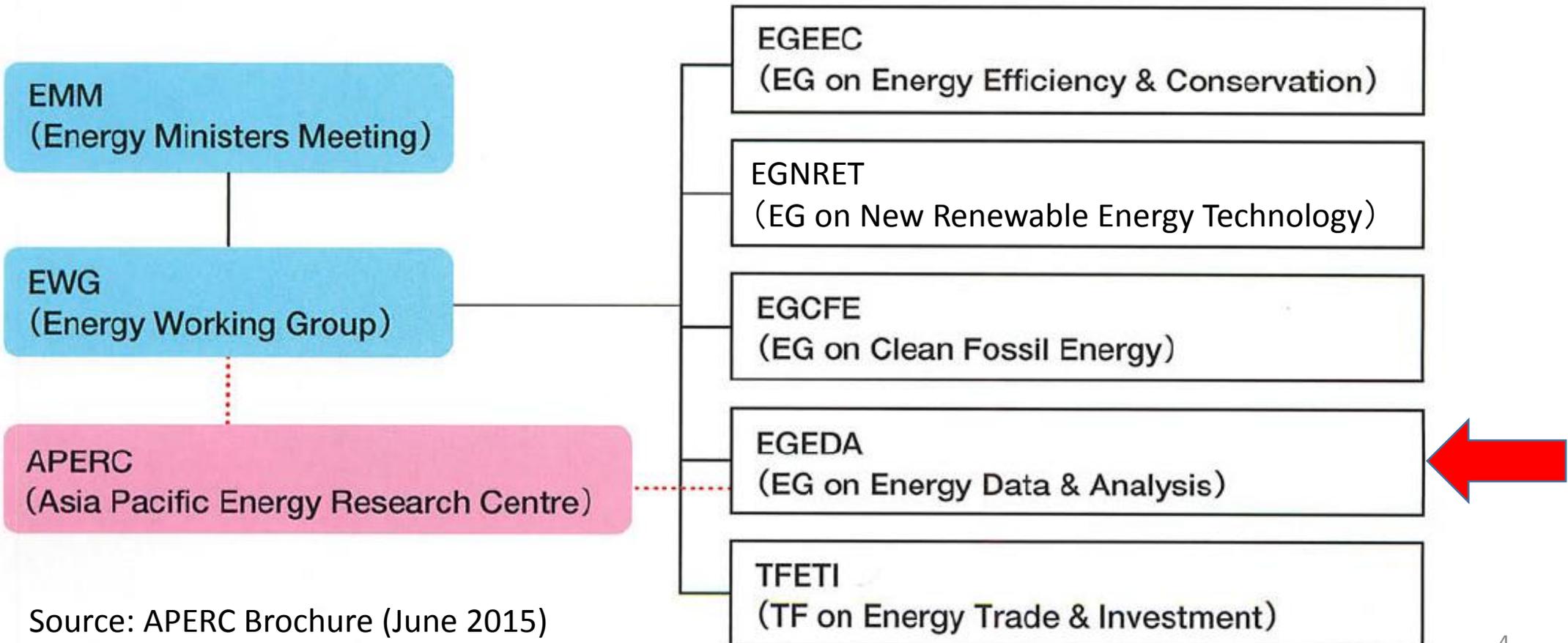


APEC Energy Working Group (APEC EWG)

- APEC Energy Working Group (EWG), as one of the 15 working groups under the APEC umbrella, was established in 1990.
- APEC EWG aims at:
 - Strengthening regional and domestic energy security and resilience;
 - Lowering the carbon intensity of energy supply and use;
 - Promoting the diversification of fuels and sources; and
 - Training a gender-inclusive energy workforce.
- APEC EWG, in recognition of the importance of energy data collection among member economies, created an Expert Group on Energy Data in 1991, which was renamed as an Expert Group on Energy Data and Analysis (EGEDA) in 1999.



Expert Group on Energy Data and Analysis (EGEDA)



Source: APERC Brochure (June 2015)



APERC ESTO (Energy Statistics & Training Office)

**ESTO=Coordinating Agency of EGEDA
(Expert Group on Energy Data and Analysis)**

- **Data collection**
- **Database management**
- **Publication of APEC Energy Statistics and Handbook**
- **Training**
 - Short-term (2 weeks)
 - Middle-term (2 months)



APEC Energy Database: Data Collection from Member Economies

Energy Data

- **Monthly** (Energy Supply and Demand)
Oil and gas (JODI: Joint Organisations Data Initiative)
- **Quarterly** (Energy Supply)
Coal, oil, petroleum products, gas and electricity
- **Annual** (Energy Supply and Demand)
Coal, oil, petroleum products, gas, electricity/heat, new&renewables

Other Data (Annual Energy Related Data)

Energy prices, CO2 emission

Oil/gas reserves and producing/refining capacity

Energy Intensity Goal in the APEC region

Darwin Declaration (2007)

Achieving Energy Security and Sustainable Development through Efficiency, Conservation and Diversity

APEC Leaders agreed to:

- work towards achieving an APEC-wide aspirational goal of a reduction in energy intensity of at least 25 percent by 2030 (with 2005 as the base year);
- facilitate and review progress through the voluntary APEC Energy Peer Review Mechanism with a report back to APEC Leaders in 2010, and
- promote policies that advance the deployment of low and zero emission energy uses.

Fukui Declaration (2010)

Low Carbon Paths to Energy Security: Cooperative Energy Solutions for A Sustainable APEC:

APEC Leaders agreed to:

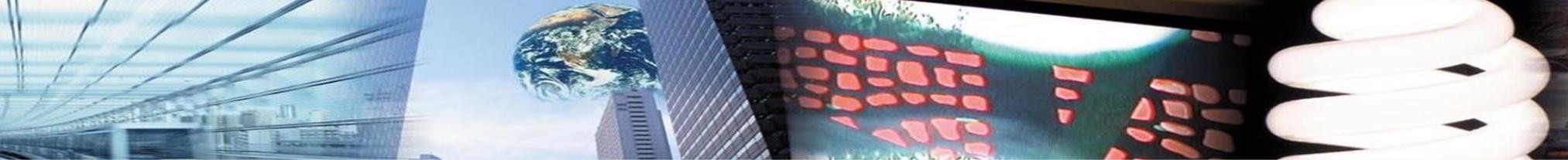
- Improving energy efficiency is one of the quickest, greenest and most cost-effective ways to address energy security, economic growth and climate change challenges at the same time;
- Intensify the analysis of the potential for further energy intensity improvement as the aspirational energy intensity reduction goal by at least 25 percent from 2005 levels by 2030, will be far surpassed if recent trends continue.

Honolulu Declaration (2011)

Toward a Seamless Regional Economy:

APEC Leaders and members agreed to work together for greater economic cohesion and security to promote green growth goals:

- Rationalise and phase out inefficient fossil-fuel subsidies that encourage wasteful consumption, while recognising the importance of providing those in need with essential energy services, and set up a voluntary reporting mechanism on progress, which we will review annually;
- Aspire to reduce APEC's aggregate energy intensity by 45% percent by 2035;"



Energy Intensity Trend in the APEC region

	2005-2014	Trend to 2035
Primary Energy Intensity	-15.1%	-42.0%
Final Energy Intensity	-13.8%	-39.0%
Final Energy Intensity (excluding non-energy)	-14.9%	-41.6%



EGEDA's Trial End-Use Data Collection: Milestone

- **December 2014:**
Introduction of Energy Efficiency Template
- **December 2015:**
Sent Questionnaire and User Manual
- **March to April 2016:**
Data collection from APEC member economies
- **May to June 2016:** Data evaluation



APEC Energy Efficiency Template 1

Contents: Residential Sector

- Space Heating
- Space Cooling
- Water Heating
- Cooking
- Lighting
- Refrigerators / Freezers
- Dish Washers
- Clothes Washers / Clothes Dryers
- Television/Home entertainment
- PC/Information & communication technology
- Other Appliances
- Total Energy Use in Residential Sector

RESIDENTIAL				
Space Heating				
Oil & Petroleum Products		PJ		
Natural Gas		PJ		
Coal & Coal Products		PJ		
Combus. Renewables & Waste		PJ		
Heat		PJ		
Electricity		PJ		
Other		PJ		
Space Cooling				
Oil & Petroleum Products		PJ		
Natural Gas		PJ		
Coal & Coal Products		PJ		
Combus. Renewables & Waste		PJ		
Heat		PJ		
Electricity		PJ		
Other		PJ		
Water Heating				
Oil & Petroleum Products		PJ		
Natural Gas		PJ		
Coal & Coal Products		PJ		
Combus. Renewables & Waste		PJ		
Heat		PJ		
Electricity		PJ		
Other		PJ		



APEC Energy Efficiency Template 2

Contents: Commercial Sector

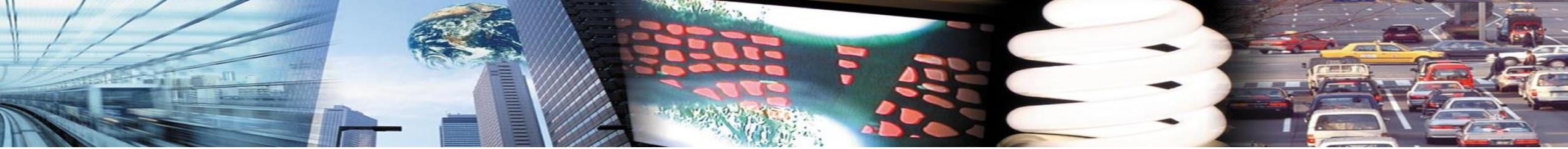
- Space Heating
- Space Cooling
- Water Heating
- Lighting
- Other Building Energy Use
- Non-Building Energy Use
- Total Energy Use in Commercial Sector

	Unit	2011	2012	2013
COMMERCIAL				
Space Heating				
Oil & Petroleum Products	PJ			
Natural Gas	PJ			
Coal & Coal Products	PJ			
Combust. Renewables & Waste	PJ			
Heat	PJ			
Electricity	PJ			
Other	PJ			
Space Cooling				
Oil & Petroleum Products	PJ			
Natural Gas	PJ			
Coal & Coal Products	PJ			
Combust. Renewables & Waste	PJ			
Heat	PJ			
Electricity	PJ			
Other	PJ			
Lighting				
Electricity	PJ			
Other	PJ			



EGEDA's Trial End-Use Data Collection: Future Steps

- **November 2016:**
Feedback from APERC/ESTO at the 28th EGEDA Meeting (Putrajaya, Malaysia)
- **April 2017:**
Exchanges at 15th APEC Workshop on Energy Statistics (Tokyo, Japan)



APERC ESTO is looking forward to working with you.

Thank you very much for your kind attention

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



**Asia-Pacific
Economic Cooperation**



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