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Energy End-Use Data Collection in APEC

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APEC (Asia Pacific Economic Cooperation)

- ✓ An economic forum for *21 Asia Pacific countries and regions (economies)*
- ✓ Established in 1989 in response to the economic growth in the Asia region in the late 80s
- ✓ The total amount of GDP in APEC is more than half of the world GDP
- ✓ Cooperative and voluntary actions
- ✓ An open framework for regional cooperation



■ 1989 ■ 1991 ■ 1993 ■ 1994 ■ 1998

FIGURE 1. APEC Member Economies classified based on their year of membership.

SOURCE: APEC at a Glance, 2012.

APEC EWG (Energy Working Group)

- One of the 15 working groups in APEC
- Launched in 1990
- *About 60 percent of world energy demand*
- Including four of the five largest energy users (China, USA, Russia, Japan)
- To strengthen domestic and regional energy security
- To lower the carbon intensity of energy supply and use
- assisted by information and data exchanges

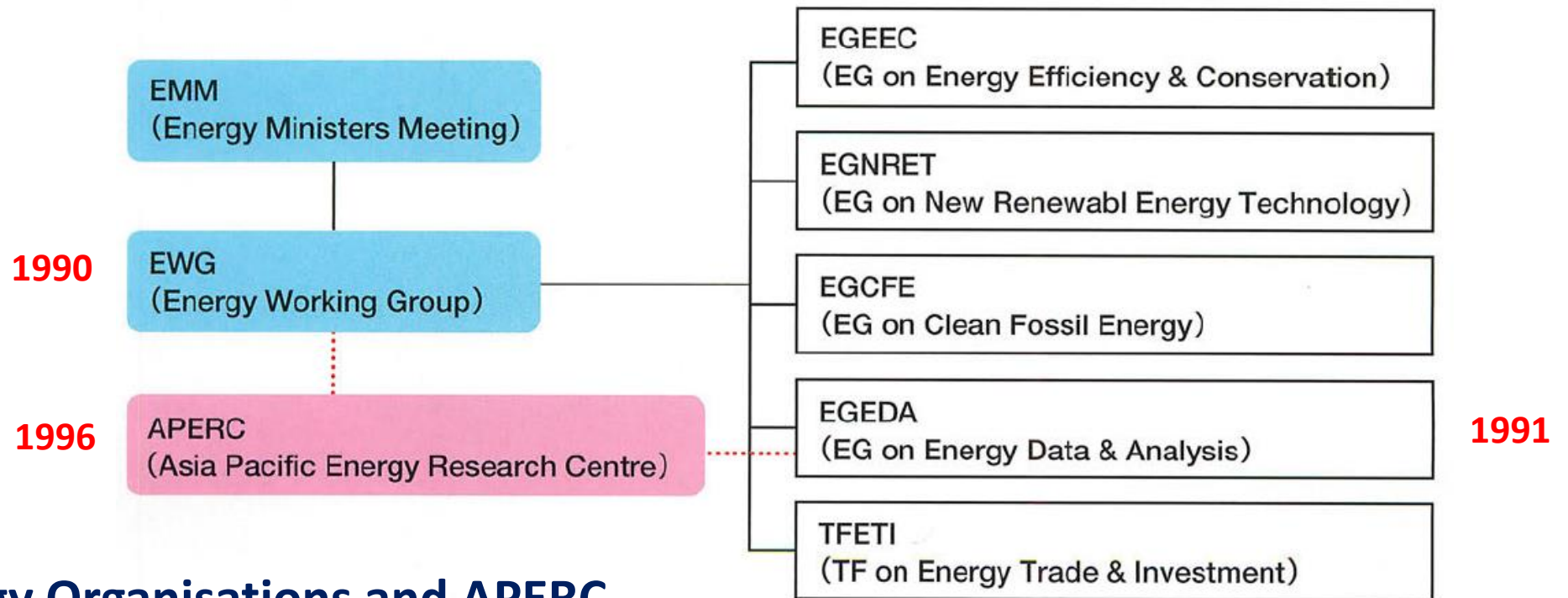
APERC (Asia Pacific Energy Research Centre)



- ✓ Established in 1996, as an affiliate of **IEEJ** (the institute of Energy Economics Japan)
- ✓ Supporting the activities in APEC EWG

EGEDA (Expert Group on Energy Data and Analysis)

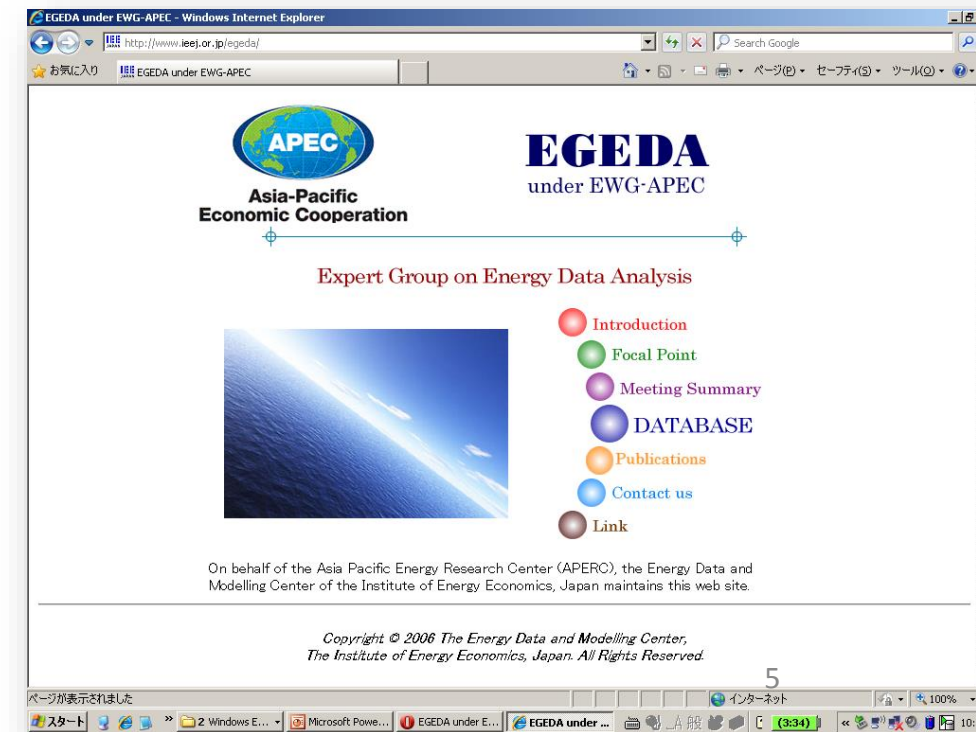
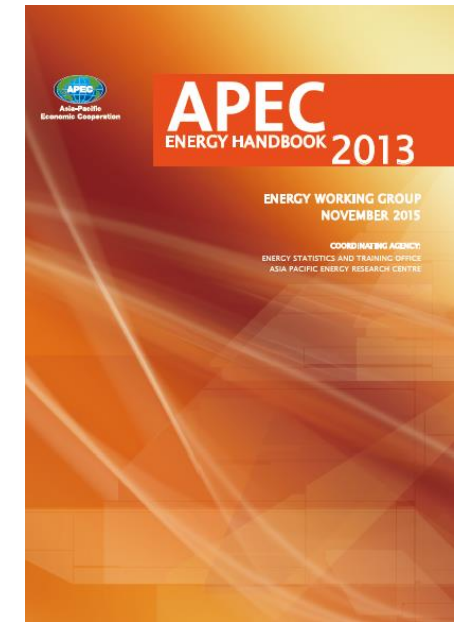
- ✓ APEC EWG is assisted by some Expert Groups, one of which is EGEDA
- ✓ responsible for providing policy relevant energy information to APEC and the wider community
- ✓ Collecting energy data, managing energy Data Base



APEC Energy Organisations and APERC

The Coordinating Agency of EGEDA / **APERC ESTO** (Energy Statistics and Training Office)

- Data collections
 - Monthly JODI
 - Quarterly(Energy Supply),
 - Annual (Energy Demand; Coal, Oil, Petroleum, Gas, Electricity, Heat, New and Renewables)
 - Other (CO2, Energy Prices, Oil/gas reserves and producing/refining capacity)
- Database management
- Publication
- Training
 - Short-term (2 weeks in Summer)
 - Medium-term (2 months in Autumn)



Improving energy efficiency – the most economic way of achieving the goals like reducing CO2 emissions

Detailed End use data needed to look for energy efficiency indicators for a sector (like in the IEA energy indicators pyramid)

27th EGEDA meeting (Chinese Taipei, Sep. 2015)

the agreement to have a trial data collection for energy efficiency

- ✓ A template with a user manual (Dec.2015)
- ✓ After revisions, the questionnaire sent to the economies for a trial data collection (Feb.2016)
- ✓ Collecting the questionnaires with 2014 data (Apr.2016)

The Questionnaire of Energy Consumption in Commercial/Public Service Sector

Items in this sector

- Space Heating
- Space Cooling
- Lighting
- Other Building Energy Use
- Non-Building Energy Use

Energy

- Petro. Products Gas
- Coal Renewables
- Heat Electricity
- Other

		Unit	2008	20
		(PJ or ktoe)	ktoe	
Energy Consumption in Commercial and Public Services Sector (Annual)				
Space Heating				
1	Oil & Petroleum Products	ktoe		
2	Natural Gas	ktoe		
3	Coal & Coal Products	ktoe		
4	Combus. Renewables & Waste	ktoe		
5	Heat	ktoe		
6	Electricity	ktoe		
7	Other	ktoe		
Space Cooling				
8	Oil & Petroleum Products	ktoe		
9	Natural Gas	ktoe		
10	Coal & Coal Products	ktoe		
11	Combus. Renewables & Waste	ktoe		
12	Heat	ktoe		
13	Electricity	ktoe		
14	Other	ktoe		
Lighting				
15	Electricity	ktoe		
16	Other	ktoe		
Other Building Energy Use in Commercial and Public Services Sector				
17	Oil & Petroleum Products	ktoe		
18	Natural Gas	ktoe		
19	Coal & Coal Products	ktoe		
20	Combus. Renewables & Waste	ktoe		
21	Heat	ktoe		
22	Electricity	ktoe		
23	Other	ktoe		
Non-Building Energy use (please specify) (e.g. Street lighting)				
24	Oil & Petroleum Products	ktoe		
25	Natural Gas	ktoe		
26	Coal & Coal Products	ktoe		
27	Combus. Renewables & Waste	ktoe		
28	Heat	ktoe		
29	Electricity	ktoe		
30	Other	ktoe		

A similar questionnaire for Residential sector

Items in Residential Sector

Space Heating
Space Cooling
Water Heating
Cooking
Lighting
Kitchen
Laundry
TV/PC/Entertainment
Other Appliances

Energy

Petro. Products	Gas
Coal	Renewables
Heat	Electricity
Other	

The 28th EGEDA meeting (Malaysia, Nov. 2016)

- ✓ A status report by the CA
- ✓ feedback from the economies

The 15th APEC Workshop on Energy Statistics (Tokyo, 4-6 Apr. 2017)

“Sharing of experiences in end-use energy data collection for energy efficiency indicator analysis” is going to be one of the main objectives

The questionnaires (Commercial/Residential) will be expanded to include non-energy data for the 2nd data collection.