

# EGEDA Update

**The 60th Meeting of the APEC Expert Group on Energy Efficiency and Conservation (EGEEC60)**

**15-17 March 2023**

**Hong Kong, China**

Edito BARCELONA

Head, EGEDA Secretariat

Senior Research Fellow, Asia Pacific Energy Research Centre (APERC)



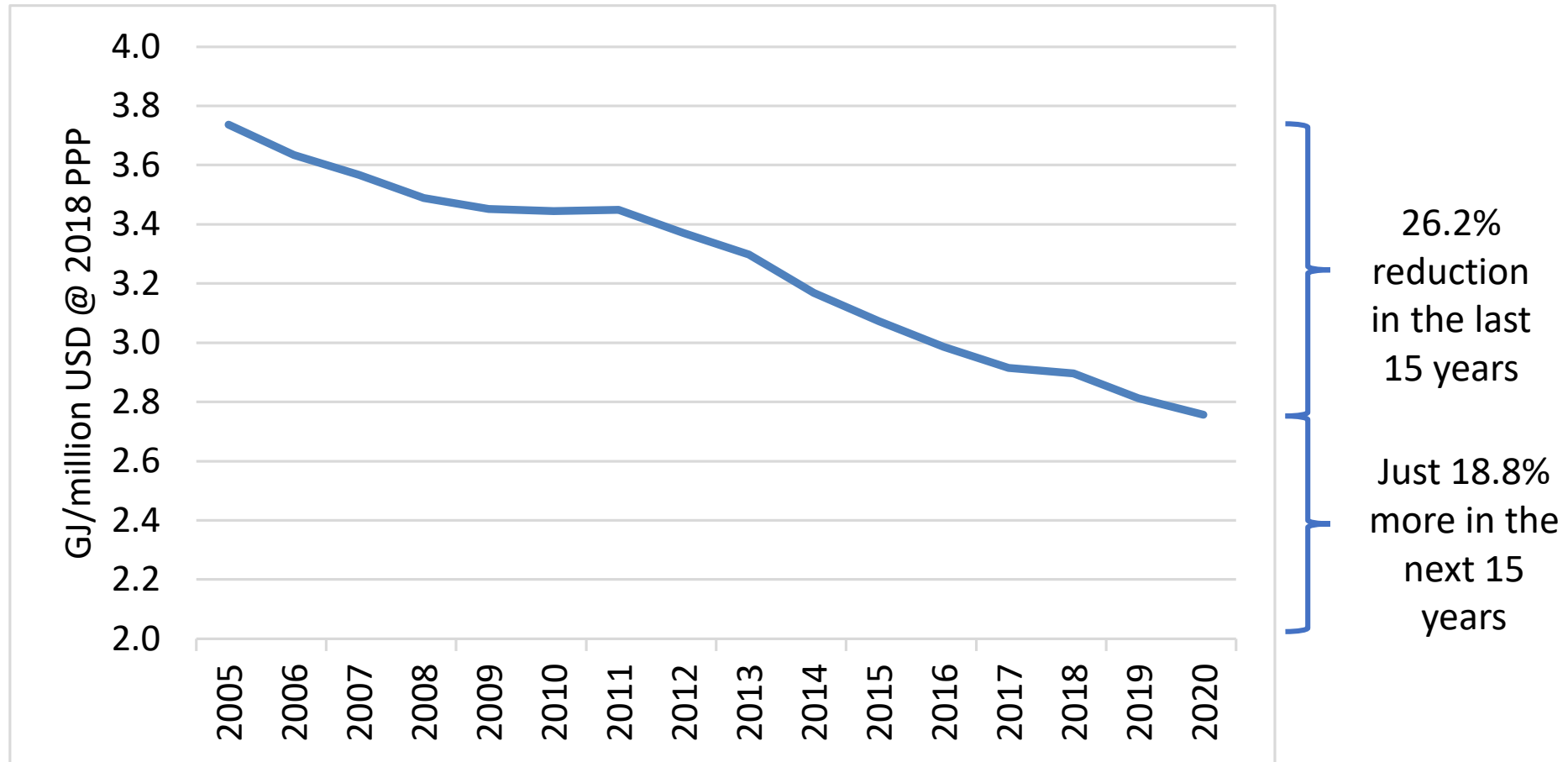
# Outline

- Regular APEC energy data collection
  - *Update on the APEC energy goals*
  - *Collection of energy efficiency indicators template*
- 20<sup>th</sup> and 21<sup>st</sup> APEC workshop on energy statistics
- EGEDA's training courses on energy statistics
- Secretariat's participation in international meetings
- 33<sup>rd</sup> and 34<sup>th</sup> EGEDA meetings

# Regular APEC energy data collection

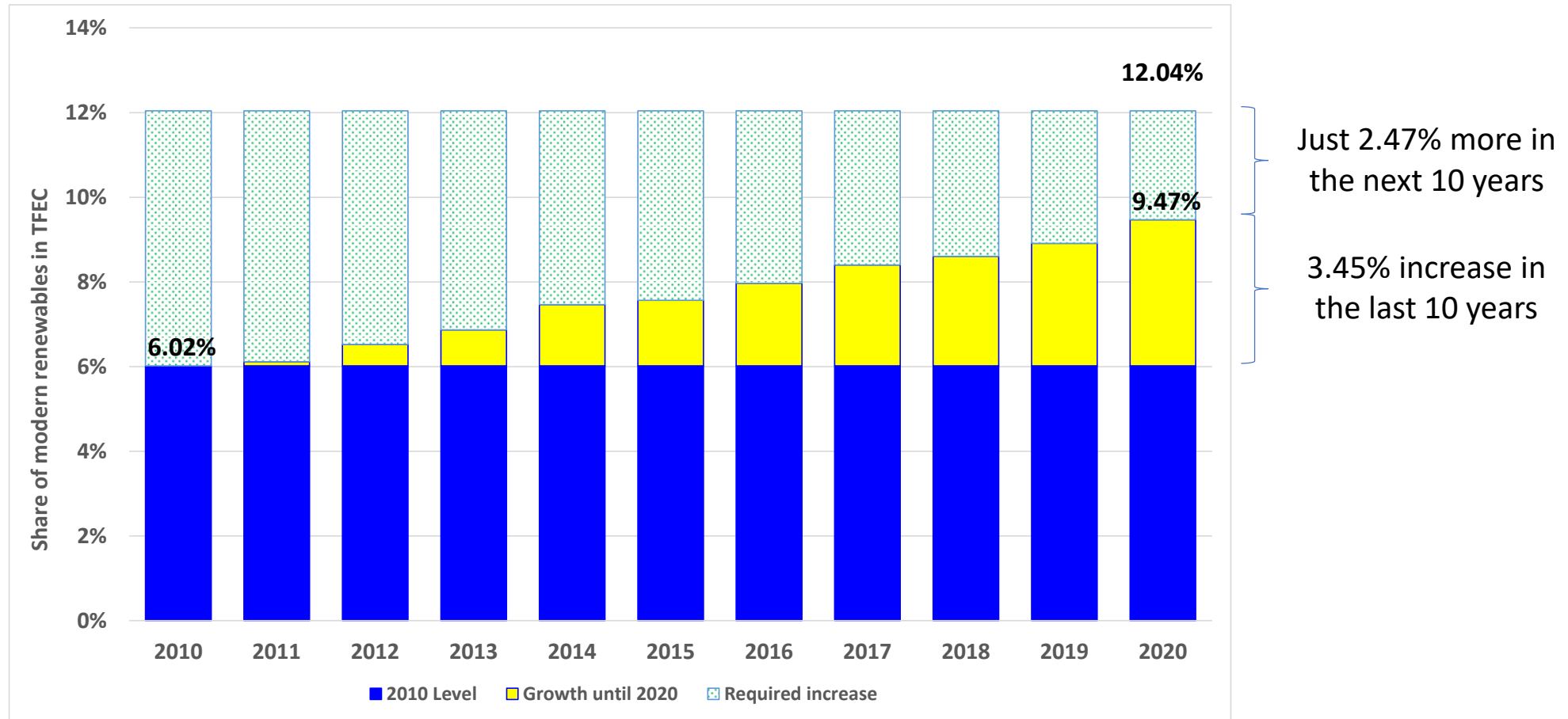
- ❑ The secretariat completed the collection the of **annual energy supply and demand data for the year 2020**
  - Data have been processed and the **APEC Energy Statistics 2020** and **APEC Energy Handbook 2020** will be released by the end of March 2023
  - Energy balances until 2020 with preliminary 2021 data are now uploaded in the APEC Energy Database
- ❑ **Annual energy supply and demand data for the year 2021** are now being collected
- ❑ Other data collections continue
  - Annual energy prices
  - Annual CO<sub>2</sub> emissions from energy combustion
  - Energy efficiency indicators
  - Monthly oil and gas supply and demand (JODI)
  - Quarterly energy supply

# Tracking the APEC energy intensity reduction goal



*In 2020, which is halfway between 2005 and 2035, APEC has reduced energy intensity by 26.2%, needing to reduce by just 18.8% more in the next 15 years (2020 to 2035)*

# Tracking the APEC renewable energy doubling goal



*In 2020, which is halfway between 2010 and 2030, APEC has increased RE share in final energy consumption by 3.45%, needing to increase by just 2.47% more in the next 10 years (2020 to 2030)*

# Energy efficiency indicators template

- ❑ Low response rate from non-OECD member economies due to unavailability of end-use energy consumption data and several activity data
- ❑ EGEDA secretariat sought the assistance of EGEEC members in providing data for the template
- ❑ EGEDA secretariat also hired a consultant to:
  - Conduct data gaps analysis and identify possible sources of data
  - Develop models for end-use energy consumption data estimation
  - The consultant's outputs were presented during EGEDA's 20<sup>th</sup> workshop on energy statistics that was held online on 15-17 November 2022
  - The consultant was also asked to teach her models to EGEDA members during the short-term course on energy statistics held on 6-16 February 2023

# Data collected (General)

I. Activity & Structure Indicators		
	Total Population	10 <sup>6</sup> pers
	Total Dwellings	10 <sup>6</sup> dw
	Occupied Dwellings	10 <sup>6</sup> dw
	New Dwellings	10 <sup>6</sup> dw
Expand/ hide	Refurbished Dwellings (with insulation) - <b>VOLUNTARY</b>	10 <sup>3</sup> dw
	<i>Share of refurbished dwellings with insulated window/wall</i>	%
	<i>Share of refurbished dwellings with insulated roof</i>	%
Expand/ hide	Share of occupied dwellings by primary heating system - <b>VOLUNTARY</b>	%
	<i>Share of occupied dwellings heated by oil products</i>	%
	<i>Share of occupied dwellings heated by gas</i>	%
	<i>Share of occupied dwellings heated by biofuels</i>	%
	<i>Share of occupied dwellings heated by district heating</i>	%
	<i>Share of occupied dwellings heated by electricity</i>	%
	Share of occupied dwellings with cooling system - <b>VOLUNTARY</b>	%
	Household Occupancy	pers/dw
	Total Dwelling Area (Residential Floor Area)	10 <sup>6</sup> m <sup>2</sup>
	New Dwelling Area (Residential Floor Area) - <b>VOLUNTARY</b>	10 <sup>3</sup> m <sup>2</sup>
	Annual Heating Degree-Days	dd°C
	Annual Cooling Degree-Days	dd°C
	U.S. Dollar Exchange Rate (national currency per USD)	1 USD =
	Purchasing Power Parity	N.C./USD
	Consumer Prices Index (2015=100)	index
	Total Employment	10 <sup>6</sup> pers
	Services Employment	10 <sup>6</sup> pers
	Total Services Floor Area	10 <sup>6</sup> m <sup>2</sup>
	New Services Floor Area	10 <sup>6</sup> m <sup>2</sup>

# Data collected (General)

<b>II. Gross Domestic Product</b> (from OECD Annual National Accounts - Comparative tables based on e	
	at current prices and current exchange rates
	at the price levels and exchange rates of 2015
	at current prices and 2015 exchange rates
	at current prices and current PPPs
	at the price levels and PPPs of 2015
<b>billions of US dollars</b>	
<b>III. GDP deflator 2015=100</b>	
	Deflator for GDP at market prices
<b>IV. Value-added in USD PPP 2015 \$ (at the price levels and PPPs of 2015)</b>	
ISIC Rev.4 Division	
01 - 03: Agriculture, forestry and fishing	
05 - 09: Mining and quarrying	
10 - 32: Manufacturing	
10 - 12: Manufacture of food products, beverages, tobacco products	
13 - 15: Manufacture of textiles, wearing apparel, leather and related products	
16: Manufacture of wood and of products of wood and cork, except furniture; manufactur	
17: Manufacture of paper and paper products	
18: Printing and reproduction of recorded media	
17 - 18: Paper & Printing	
19: Manufacture of coke and refined petroleum products	
20 - 21: Manufacture of chemicals and chemical products & basic pharmaceutical produc	
22: Manufacture of rubber and plastics products	
23: Manufacture of other non-metallic mineral products	
24: Manufacture of basic metals	
Class 2410+2431: Manufacture + Casting of iron and steel	
Class 2420+2432: Manufacture + Casting of precious and non-ferrous metals	
25 - 28: Manufacture of fabricated metal products, machinery and equipment	
29 - 30: Manufacture of motor vehicles, trailers, other transport equipment	
31 - 32: Manufacture of furniture & Other manufacturing	
35 -36: Electricity, gas, steam, air conditioning, and water supply	
41 - 43: Construction	
33 - 99: Services	
Total gross value added at basic prices	
<b>EEL statistical discrepancy</b>	
<b>GDP USD PPP 2015 \$ (at the price levels and PPPs of 2015)</b>	
<b>billions of 2015\$ PPP</b>	

Values are also requested to be reported in

- national currency and
- USD market exchange rate (MER) 2015 USD



# Data collected (Commodities)

17	17: Manufacture of paper and paper products	
	Pulp	Mt
	Chemical pulp	Mt
	Mechanical pulp	Mt
	Recovered Paper	Mt
	Inked	Mt
	De-inked	Mt
	Paper and paperboard	Mt
	Household + Sanitary Paper	Mt
	Newsprint	Mt
	Printing + Writing Paper	Mt
	Wrapping + Packaging Paper + Paperboard	Mt
	Other	Mt

23	23: Manufacture of other non-metallic mineral products	
	Cement	
	Clinker production	Mt
	Cement production	Mt

20 - 21	20 - 21: Manufacture of chemicals and chemical products & basic	
	Ethylene	Mt
	Propylene	Mt
	BTX	Mt
	Ammonia (NH <sub>3</sub> )	Mt
	Butadiene	Mt
	Caustic Soda	Mt

24	24: Manufacture of basic metals	
	Crude Steel	Mt
	Basic Oxygen Furnace production	Mt
	Electric Arc Furnace production	Mt
	Direct Reduced Iron	Mt
	Bauxite	Mt
	Alumina refining	Mt
	Aluminium	Mt
	Primary production	Mt
	Recycled production	Mt

# Data collected (Industry)

Energy Use based on ISIC Rev.4 Division	
<b>01 - 03</b>	<b>01 - 03: Agriculture, forestry and fishing</b>
	Oil & Oil Products PJ
	Natural Gas PJ
"	Coal & Coal Products PJ
"	Biofuels & Waste PJ
"	Heat PJ
"	Electricity PJ
"	Other PJ
"	<b>Total Energy Use PJ</b>
<b>05-09</b>	<b>Mining and Quarrying</b>
<b>10-12</b>	<b>Manufacture of Food, beverages and tobacco</b>
<b>13-15</b>	<b>Manufacture of textile, wearing apparel, leather and related prods</b>
<b>16</b>	<b>Manufacture of wood and wood products and cork except furniture</b>
<b>17 &amp; 18</b>	<b>Manufacture of paper and paper product</b>
	Of which pulp
	Of which paper
	Printing and reproduction of recorded media
<b>19</b>	<b>Manufacture of coke and refined petroleum products</b>
<b>20-21</b>	<b>Manufacture of chemicals and chemical products</b>
<b>22</b>	<b>Manufacture of rubber and plastic products</b>

<b>23</b>	<b>Manufacture of other non-metallic mineral products</b>
	Of which cement
	Of which clinker
<b>24</b>	<b>Manufacture of basic metals</b>
	Casting of iron and steel
	Of which BOF (basic oxygen furnace)
	Of which EAF (electric arc furnace)
	Manufacture + casting of precious and non-ferrous metals
	Of which aluminum
<b>25-28</b>	<b>Manufacture of fabricated metal products, machinery and equipment</b>
<b>29-30</b>	<b>Manufacture of vehicles, trailers other transport equipment</b>
<b>31-32</b>	<b>Manufacture of furniture and other manufacturing</b>
<b>35-36</b>	<b>Electricity, gas, steam, air conditioning and water supply</b>
<b>41-43</b>	<b>Construction</b>

# Data collected (Services)

Total Energy Use in Services Sector		For information
Oil & Oil Products		PJ
Natural Gas		PJ
Coal & Coal Products		PJ
Biofuels & Waste		PJ
Heat		PJ
Electricity		PJ
Other		PJ
Total		PJ
Floor area		10 <sup>6</sup> m <sup>2</sup>

	Space heating	PJ
	Space cooling	PJ
	Lighting	PJ
	Other building energy use in the services sector	PJ
	Non-building energy use (please specify, e.g. street lighting)	

	Sewerage, waste collection and remediation activities	PJ
	Wholesale and retail trade	PJ
	Warehousing, support activities for transportation, postal services	PJ
	Accommodation and food services	PJ
	Information and communication	PJ
	Financial, insurance, real estate, scientific, and administrative activities	PJ
	Public administration, excluding defence	PJ
	PC/information & communication technology	PJ
	Education	PJ
	Health and social work	PJ
	Arts, entertainment and recreation	PJ
	Other services activities	PJ

# Data collected (Residential)

Total Energy Use in Residential Sector		For information
	Oil & Oil Products	PJ
	Natural Gas	PJ
	Coal & Coal Products	PJ
	Biofuels & Waste	PJ
	Heat	PJ
	Electricity	PJ
	Other	PJ
	Total	PJ
	<b>Space heating</b>	<b>PJ</b>
	<b>Space cooling</b>	<b>PJ</b>
	<b>Water heating</b>	<b>PJ</b>
	<b>Cooking</b>	<b>PJ</b>
	<b>Lighting</b>	<b>PJ</b>
	<b>Other building energy use in the residential sector</b>	<b>PJ</b>

	<b>Refrigerators</b>	<b>PJ</b>
	<b>Freezers</b>	<b>PJ</b>
	<b>Refrigerator/freezer combinations</b>	<b>PJ</b>
	<b>Dish washers</b>	<b>PJ</b>
	<b>Clothes washers</b>	<b>PJ</b>
	<b>Clothes dryers</b>	<b>PJ</b>
	<b>Television/home entertainment</b>	<b>PJ</b>
	<b>PC/information &amp; communication technology</b>	<b>PJ</b>
	<b>Other appliances</b>	<b>PJ</b>
	<b>Appliance diffusion</b>	<b>Unit/dw</b>
	Refrigerators	Unit/dw
	Freezers	Unit/dw
	Refrigerator/freezer combinations	Unit/dw
	Dish washers	Unit/dw
	Clothes washers	Unit/dw
	Clothes dryers	Unit/dw
	Television/home entertainment	Unit/dw
	PC/information & communication technology	Unit/dw
	<b>Appliance stock</b>	<b>10<sup>6</sup></b>

# Data collected (Transport, 1)

Activity & Structure indicators		
<b>Passenger transport [passenger-kilometres]</b>		
	Cars, SUV and personal light trucks	10 <sup>9</sup> pass-km
	gasoline and other spark ignition engines	10 <sup>9</sup> pass-km
	diesel (compression ignition) engine	10 <sup>9</sup> pass-km
	battery and plug-in hybrid electric - <b>voluntary</b>	10 <sup>9</sup> pass-km
Expand/hide	Of which cars - <b>VOLUNTARY</b>	10 <sup>9</sup> pass-km
Expand/hide	Of which SUV and personal light trucks - <b>VOLUNTARY</b>	10 <sup>9</sup> pass-km
	Motorcycles (2-4 wheelers < 400 kg)	10 <sup>9</sup> pass-km
	Buses	10 <sup>9</sup> pass-km
	Passenger Trains	10 <sup>9</sup> pass-km
	Of which metro and light rail - <b>voluntary</b>	10 <sup>9</sup> pass-km
	Of which conventional rail - <b>voluntary</b>	10 <sup>9</sup> pass-km
	Of which high-speed rail - <b>voluntary</b>	10 <sup>9</sup> pass-km
	Domestic passenger airplanes	10 <sup>9</sup> pass-km
	Domestic passenger ships	10 <sup>9</sup> pass-km
	<b>Total Passenger Transport</b>	<b>10<sup>9</sup> pass-km</b>
	Electric bikes and other micromobility - <b>voluntary</b>	10 <sup>9</sup> pass-km
<b>Freight transport [tonne-kilometres]</b>		
	Freight & Commercial road transport	10 <sup>9</sup> tonne-km
	Of which Light Commercial Vehicle (<3.5 t) - <b>voluntary</b>	10 <sup>9</sup> tonne-km
	Of which Medium Freight Trucks ( 3.5 t -12 t) - <b>voluntary</b>	10 <sup>9</sup> tonne-km
	Of which Heavy Freight Trucks (> 12 t) - <b>voluntary</b>	10 <sup>9</sup> tonne-km
	Freight trains	10 <sup>9</sup> tonne-km
	Domestic freight airplanes	10 <sup>9</sup> tonne-km
	Domestic freight ships	10 <sup>9</sup> tonne-km
	<b>Total Freight Transport</b>	<b>10<sup>9</sup> tonne-km</b>

<b>Vehicle kilometres</b>		
	Cars, SUV and personal light trucks	10 <sup>9</sup> vkm
	- gasoline and other spark ignition engines	10 <sup>9</sup> vkm
	- diesel (compression ignition) engine	10 <sup>9</sup> vkm
	- battery and plug-in hybrid electric - <b>voluntary</b>	10 <sup>9</sup> vkm
	Motorcycles (2-4 wheelers < 400 kg)	10 <sup>9</sup> vkm
	Buses	10 <sup>9</sup> vkm
	Passenger Trains	10 <sup>9</sup> vkm
	Domestic passenger airplanes	10 <sup>9</sup> vkm
	Domestic passenger ships	10 <sup>9</sup> vkm
	Freight & Commercial road transport	10 <sup>9</sup> vkm
	Freight trains	10 <sup>9</sup> vkm
	Domestic freight airplanes	10 <sup>9</sup> vkm
	Domestic freight ships	10 <sup>9</sup> vkm
<b>Vehicle stocks (number of vehicles in use)</b>		
	Cars, SUV and personal light trucks	10 <sup>6</sup>
	- gasoline and other spark ignition engines	10 <sup>6</sup>
	- diesel (compression ignition) engine	10 <sup>6</sup>
	- battery and plug-in hybrid electric - <b>voluntary</b>	10 <sup>6</sup>
Expand/hide	Of which cars - <b>VOLUNTARY</b>	10 <sup>6</sup>
Expand/hide	Of which SUV and personal light trucks - <b>VOLUNTARY</b>	10 <sup>6</sup>
	Motorcycles (2-4 wheelers < 400 kg)	10 <sup>6</sup>
	Buses	10 <sup>6</sup>
	Passenger Trains	10 <sup>6</sup>
	Of which metro and light rail - <b>voluntary</b>	10 <sup>6</sup>
	Of which conventional rail - <b>voluntary</b>	10 <sup>6</sup>
	Of which high-speed rail - <b>voluntary</b>	10 <sup>6</sup>
	Domestic passenger airplanes	10 <sup>6</sup>
	Domestic passenger ships	10 <sup>6</sup>
	Freight & Commercial road transport	10 <sup>6</sup>
	Of which Light Commercial Vehicle (<3.5 t) - <b>voluntary</b>	10 <sup>6</sup>
	Of which Medium Freight Trucks ( 3.5 t -12 t) - <b>voluntary</b>	10 <sup>6</sup>
	Of which Heavy Freight Trucks (> 12 t) - <b>voluntary</b>	10 <sup>6</sup>
	Freight trains	10 <sup>6</sup>
	Domestic freight airplanes	10 <sup>6</sup>
	Domestic freight ships	10 <sup>6</sup>

# Data collected (Transport, 2)

## Energy use

Cars, SUV and personal light trucks	
Motor Gasoline (including biofuels)	PJ
Automotive Diesel (including biofuels)	PJ
LPG (Liquefied Petroleum Gas)	PJ
Natural Gas	PJ
Electricity	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>
<b>Of which cars - VOLUNTARY SUBMISSION</b>	
Motor Gasoline (including biofuels)	PJ
Automotive Diesel (including biofuels)	PJ
LPG (Liquefied Petroleum Gas)	PJ
Natural Gas	PJ
Electricity	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>
<b>Of which SUV and personal light trucks - VOLUNTARY SUBMISSION</b>	
Motor Gasoline (including biofuels)	PJ
Automotive Diesel (including biofuels)	PJ
LPG (Liquefied Petroleum Gas)	PJ
Natural Gas	PJ
Electricity	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>

Motorcycles (2-4 wheelers < 400 kg)	
Motor Gasoline (including biofuels)	PJ
Electricity	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>
<b>Buses</b>	
Motor Gasoline (including biofuels)	PJ
Automotive Diesel (including biofuels)	PJ
LPG (Liquefied Petroleum Gas)	PJ
Natural Gas	PJ
Electricity	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>
<b>Passenger Trains</b>	
Diesel & Light Fuel Oil	PJ
Electricity	PJ
Coal & Coal Products	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>
<b>Of which metro and light rail - VOLUNTARY SUBMISSION</b>	
<b>Total</b>	<b>PJ</b>
<b>Of which Conventional trains - VOLUNTARY SUBMISSION</b>	
<b>Total</b>	<b>PJ</b>
<b>Of which high-speed rail - VOLUNTARY SUBMISSION</b>	
<b>Total</b>	<b>PJ</b>

# Data collected (Transport, 3)

## Energy use

Domestic passenger airplanes	
Jet Fuel & Aviation Gasoline	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>
Domestic passenger ships	
Motor Gasoline (including biofuels)	PJ
Diesel & Light Fuel Oil	PJ
Heavy Fuel Oil	PJ
Natural Gas	PJ
Coal & Coal Products	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>

Freight & Commercial road transport	
Motor Gasoline (including biofuels)	PJ
Automotive Diesel (including biofuels)	PJ
LPG (Liquefied Petroleum Gas)	PJ
Natural Gas	PJ
Electricity	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>
Of which Light Commercial Vehicles (<3.5 t) - VOLUNTARY SUBMISSION	
Motor Gasoline (including biofuels)	PJ
Automotive Diesel (including biofuels)	PJ
LPG (Liquefied Petroleum Gas)	PJ
Natural Gas	PJ
Electricity	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>
Of which Medium Freight Trucks ( 3.5 t -12 t) - VOLUNTARY SUBMISSION	
Motor Gasoline (including biofuels)	PJ
Automotive Diesel (including biofuels)	PJ
LPG (Liquefied Petroleum Gas)	PJ
Natural Gas	PJ
Electricity	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>
Of which Heavy Freight Trucks (> 12 t) - VOLUNTARY SUBMISSION	
Motor Gasoline (including biofuels)	PJ
Automotive Diesel (including biofuels)	PJ
LPG (Liquefied Petroleum Gas)	PJ
Natural Gas	PJ
Electricity	PJ
Other	PJ

# Data collected (Transport, 4)

## Energy use

<b>Freight trains</b>	
Diesel & Light Fuel Oil	PJ
Electricity	PJ
Coal & Coal Products	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>
<b>Domestic freight airplanes</b>	
Jet Fuel & Aviation Gasoline	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>
<b>Domestic freight ships</b>	
Motor Gasoline (including biofuels)	PJ
Diesel & Light Fuel Oil	PJ
Heavy Fuel Oil	PJ
Natural Gas	PJ
Coal & Coal Products	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>
<b>Energy Use in Freight Transport</b>	
Motor Gasoline (including biofuels)	PJ
Diesel & Light Fuel Oil	PJ
LPG (Liquefied Petroleum Gas)	PJ
Heavy Fuel Oil	PJ
Jet Fuel & Aviation Gasoline	PJ
Natural Gas	PJ
Electricity	PJ
Coal & Coal Products	PJ
Other	PJ
<b>Total</b>	<b>PJ</b>



# 20<sup>th</sup> APEC workshop on energy statistics

- ❑ Held on **15-17 November** (online, postponed from July 2022)
- ❑ Purpose: improve member knowledge about **end-use data collection and estimation** processes and how best to use published data
- ❑ Phase II of the joint training workshop with IEA
- ❑ Agenda
  - Data gaps analysis
  - Modeling sectoral end-use energy consumption
  - Hands-on exercises on data estimation
  - Resolving data gaps at the economy level

# 21<sup>st</sup> APEC workshop on energy statistics

- Planned to be held in-person in **June or July 2023**
- Purpose:
  - To discuss **hydrogen data collection** starting with 2022 annual data
  - To understand the challenges faced by member economies in the **collection of district cooling data**
- Agenda
  - Data gaps analysis
  - Modeling sectoral end-use energy consumption
  - Hands-on exercises on data estimation
  - Resolving data gaps at the economy level

# EGEDA's training courses (2022)

- All physical courses scheduled in 2022 were postponed to the first quarter of 2023
  - Short term: two weeks course (**6-16 February 2023**)
  - Special one-week course for Viet Nam (**27 February to 3 March 2023**)
  - Middle term: 8 weeks of on-the-job training (**may start in June or July 2023**)

# Secretariat's participation in international meetings

- JODI Inter-Secretariat Working Group (ISWG) meeting on **7 June 2022**
  - Discuss organization updates, technical issues and cooperation with private stakeholders
- Monthly meetings of the Task Team for the Revision of Standard International Energy Classification (TT-SIEC) under International Energy Statistics Working Group (InterEnerStat)
  - Discuss revisions to SIEC with the ongoing revisions of Central Product Classification (CPC) and International Standard Industrial Classification (ISIC)
  - Last online meetings in April 2023
- IEA's Energy Statistics Development Group (ESDG, **9-10 November 2022**)
  - EGEDA secretariat to share plans for data collection of hydrogen data in APEC in 2023-2024;
  - Suggested collection of district cooling data and
  - Reported on energy efficiency indicators data collection in APEC

# 33<sup>rd</sup> EGEDA meeting

- Held in **the Philippines** on **26-28 October 2022**
- Agenda items include:
  - Report on the **20<sup>th</sup> APEC workshop on energy statistics** and directives from **EWG62** and **EWG63**
  - Data collection report by the secretariat
  - Overview of APEC **2020 energy supply and demand**
  - Progress toward the two **APEC energy goals**
  - Global update on **JODI**
  - **Hydrogen** and **district cooling** data collection
  - APERC research activities
- No site visit; key results from the *APERC Energy Demand and Supply Outlook 8<sup>th</sup> edition* were presented on Day 3

# 34<sup>th</sup> EGEDA meeting

- ❑ To be held in **Honolulu, Hawaii, the USA** on **4-5 April 2023**
- ❑ **A joint meeting with EGNRET58**

Draft Agenda (As of February 2, 2023)	
Time	April 4
09:00-09:10	Official Welcome by Host Economy
09:10-09:20	Opening Remarks by EGEDA and EGNRET Chairs
09:20-09:30	Adoption of Agenda
09:30-10:00	Host Economy Presentation
10:00-10:10	Group Photo
10:10-10:20	Coffee Break
10:20-10:35	APEC Secretariat Updates
10:35-10:50	EWG Updates
10:50-11:05	EGNRET Activities
11:05-11:20	EGEDA Activities
11:20-11:50	EGEEC Updates
11:50-12:05	Lunch Break
12:05-13:30	APERC Updates
13:30-14:00	EGEDA Secretariat: Overview of APEC Energy Situation (including tracking of APEC energy goals)
14:00-14:30	IRENA: World Energy Transition Outlook
14:30-15:00	Coffee Break
15:00-15:30	IRENA: Energy Statistics
15:30-16:00	EIA – USDOE Presentation
16:00-17:00	Round-table discussion: Members' methodology on RE data collection and reporting
17:00-17:05	Adjourn

# 34<sup>th</sup> EGEDA meeting

- To be held in **Honolulu, Hawaii, the USA** on **4-5 April 2023**

	April 5
	Joint meeting
09:00-10:00	EGEDA Secretariat: Update on Hydrogen Data Collection Template
10:00-10:30	EGEDA Secretariat: Report JODI Data Submissions in APEC
10:30-10:50	Coffee Break
10:50-11:00	Progress/Status of Current EGNRET Projects & Project Submission Process
11:00-11:30	EGNRET Project Report
11:30-12:00	Meeting Theme: Economy Movement toward Carbon Free Electricity
12:00-13:30	Lunch Break
13:30-14:00	Meeting Theme: Economy Movement toward Carbon Free Electricity
14:00-14:20	HNEI Presentation
14:20-14:40	APERC: Presentation on Research Study on Renewable Energy Certificates (REC) In APEC
14:40-15:00	Discussion: APEC energy goals by EGEDA and EGNRET Chairs (EGEEC)
15:00-15:20	Coffee Break
15:20-16:00	Discussion: Further Areas of Collaboration between Two Expert Groups
16:00-16:15	Meeting Summary
16:15-16:25	EGNRET-Administration & Operations - Next Expert Group Meeting - Other Business
16:25-16:35	EGEDA - Administration & Operations - Next Expert Group Meeting - Other Business
16:35-16:45	Closing Remarks
16:45-16:50	Adjourn

**Thank you.**

**<https://aperc.or.jp>**

