APEC EGCFE Oil and Gas Meeting
9 March 2018
Tokyo

#### **EGEDA Data on Oil and Gas**

Edito Barcelona Energy Statistics and Training Office (ESTO) Asia Pacific Energy Research Centre (APERC)





#### **Outline**

### What is EGEDA?

### EGEDA data collection

- Annual oil and gas supply/demand data
- Quarterly oil and gas supply demand data
- Monthly oil and gas data (JODI)

# APEC energy database

### Conclusions



### What is EGEDA?

# EGEDA stands for Expert Group on Energy Data and Analysis

- Established in 1991 as Energy Data Expert Group during the 2<sup>nd</sup> APEC EWG meeting, responsible for managing and reviewing the operation of the APEC energy database
- Renamed Energy Data and Outlook Expert Group during the 12<sup>th</sup> APEC EWG meeting in 1996, with a new role of advising the Asia Pacific Energy Research Centre (APERC) in the preparation of its energy outlook and research activities
- The current name, EGEDA was obtained during the 18<sup>th</sup> APEC EWG meeting in 1999

#### The overall objectives of EGEDA are:

- to contribute to improve the quality of energy policies and decision-making in APEC member economies, and
- to enhance the efficiency of the regional energy market by improving the quality, availability and accessibility of energy data and projections and by analysing regional energy trends



#### What is EGEDA?

With members from 21 APEC economies

Holds one meeting, one workshop and two training courses on energy statistics per year

Chair: Mr. James Kendell, APERC Vice-president (from November 2017)

Vice-chair: Mr. Jen-yi Hou (Chinese Taipei)

Secretariat: Energy Statistics and Training Office (ESTO), Asia Pacific Energy Research Centre



#### **EGEDA** data collection

#### Annual data

- Deadline: December of the following year (usually)
- Energy supply and demand (energy balance table)
  - Supply, transformation, own-use and losses, consumption by sector and sub-sectors
- Energy prices (import, wholesale and consumer prices)
- CO<sub>2</sub> emissions from energy consumption
- Energy efficiency indicators

### Quarterly supply data

- Coal, crude oil and oil products, natural gas and electricity
- Production, imports, exports, stock change, and total primary energy supply



#### **EGEDA** data collection

#### Monthly data (JODI Oil)

- Indigenous production and refinery output
- Imports and exports
- Stock changes
- Transfers
- Stock closing and stock changes
- Refinery intake and Demand

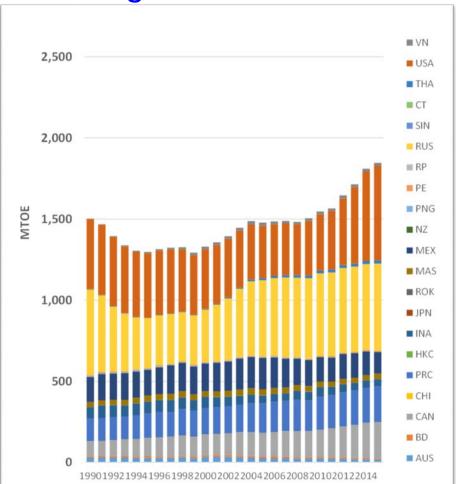
#### Monthly data (JODI Gas, million m<sup>3</sup> and TJ)

- Indigenous production
- Imports and exports
  - via pipelines and LNG (tons and TJ for LNG)
- Stock closing and stock changes
- Gross inland deliveries (observed)
- Consumption for electricity generation
- Imports/Exports by source/destination

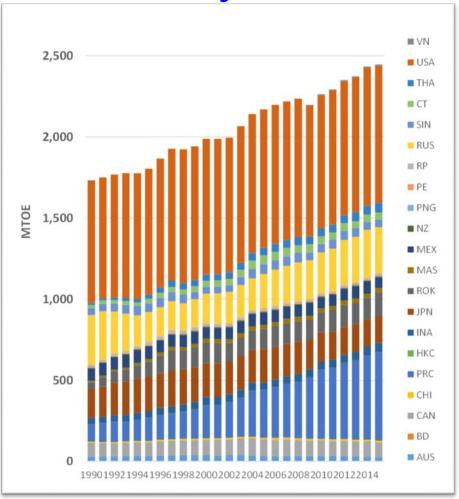


## **APEC Annual oil data**

#### **Indigenous Production**



#### **Refinery Intake**



APEC consumes more crude oil that it can produce although some economies are net exporters. China and the US are biggest importers while Russia is a major exporter

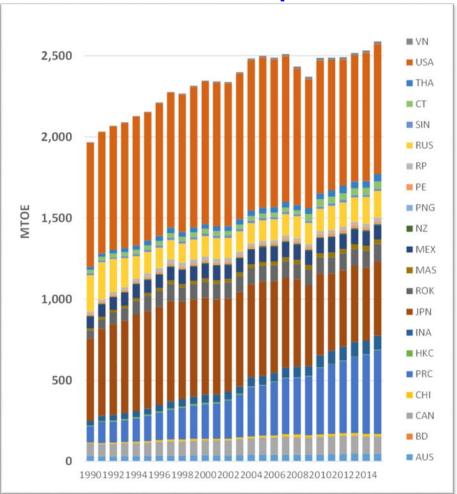


### Annual oil data

#### **Indigenous Production**

#### **■** VN 2,500 USA ■ THA CT ■ SIN 2,000 RUS ■ RP ■ PE PNG MTOE 1,500 ■ NZ ■ MEX MAS ■ ROK 1,000 ■ JPN ■ INA ■ HKC ■ PRC CHI **■** CAN BD **AUS**

#### **Total Consumption**



APEC consumes more oil that it can produce. Despite the annual increase in production of 3.2% from 2008 to 2015 and the only 0.9% annual growth in total consumption, only 71% can be met by APEC production in 2015.



# Quarterly Supply Data

#### **Dates of submission of data**

	2015					2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Deadline	Jul-15	Oct-15	Jan-16	Apr-16	Jul-16	Oct-16	Jan-17	Apr-17	Jul-17	Oct-17	Jan-18	Apr-18	
AUS	Sep-15	Sep-15	Jan-16	May-16	Aug-16	Aug-16	Jan-17	Apr-17	Jul-17				
BD	Jul-15	Oct-15	Jan-16	Apr-16	Aug-16	Nov-16	Feb-17	Apr-17	Aug-17	Oct-17			
CAN													
CHI	Oct-15	Oct-15	Jan-16	Apr-16	Feb-17	Feb-17	Feb-17	Apr-17	Apr-17	Oct-17	Jan-18		
PRC	Aug-15	Oct-15	Jan-16	Apr-16	Aug-16	Oct-16	Jan-17	Apr-17	Jul-17				
НКС	Jul-15	Oct-15	Jan-16	Apr-15	Jul-16	Oct-16	Jan-17	Apr-17	Jul-17	Oct-17	Jan-18		
INA													
JPN	Jul-15		Feb-16	Apr-16									
ROK	Jul-15	Oct-15	Feb-16	Apr-16	Aug-16	Oct-16	Jan-17		Aug-17				
MAS													
MEX	May-15	Jul-15	Nov-15	Feb-15	May-16	Sep-16	Jan-17		Jul-17	Oct-17			
NZ	Jul-15	Oct-15	Jan-16	Apr-16	Jul-16	Oct-17	Oct-17	Oct-17	Oct-17	Oct-17			
PNG													
PE	Aug-16	Aug-16	Aug-16	Aug-16	Aug-16	Nov-16	Jan-17	Apr-17					
RP	Jun-16	Jun-16	Jun-16	Jun-16	Aug-16	Aug-16	Feb-17	May-17					
RUS	Jul-15	Nov-15	Feb-16	Apr-16	Jul-16	Oct-16	Jan-17	Apr-17	Jul-17	Oct-17			
SIN	Jul-15	Oct-15	Jan-16	May-16	Jul-16	Oct-16	Jan-17	Apr-17	Aug-17	Oct-17	Jan-18		
СТ	Jul-15	Oct-15	Jan-16	Apr-15	Jul-16			Apr-17	Jul-17		Jan-18		
THA	Jun-15	Aug-15	Jan-16	Apr-16	Oct-16	Oct-16	Jan-16	May-17	Jul-17				
USA	Aug-15	Oct-15	Jan-16	Apr-16	Jul-16	Oct-16	Feb-17	May-17	Jul-17	Oct-17			
VN	Aug-15	Aug-15	Jul-16	May-16	Sep-16	Sep-16							



### Monthly oil data

#### JOINT OIL DATA INITIATIVE

Closing minus opening level	
Positive number corresponds to stock build,	negative number corresponds to stock draw

Country

Month \_\_\_\_\_ Unit : \_\_\_\_\_

						Petroleum Products								
	Crude Oil	NGL	Other	<b>Total</b> (1)+(2)+(3)		LPG	Naphtha	Gasoline	Total Kerosene	Of which: Jet Kerosene	Gas/ Diesel Oil	Fuel Oil	Other Products	Total Products (5)+(6)+(7) +(8)+(10) +(11)+(12)
	(1)	(2)	(3)	(4)		(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
+ Production				0	+ Refinery Output									0
+ From Other sources				0	+ Receipts									0
+ Imports				0	+ Imports									0
- Exports				0	- Exports									0
+ Products Transferred + /Backflows				0	- Products Transferred									0
- Direct Use				0	+ Interproduct Transfers									0
- Stock Change		·		0	- Stock Change									0
- Statistical Difference				0	- Statistical Difference									0
= Refinery Intake				0	= Demand									0
Closing stocks				0	Closing stocks									0

#### **Automatic Checks**

Total sum

Statistical Difference

Stat. Diff./Refinery Intake

**Products Transferred** 

Negative Products Transferred

Blocked out cells

Negative Stock Values

Refinery Losses

#### **Automatic Checks Petroleum Products**

Total Products sum

Statistical Difference

Stat. Diff. /Demand

Negative Products Transferred

Interproduct transfers

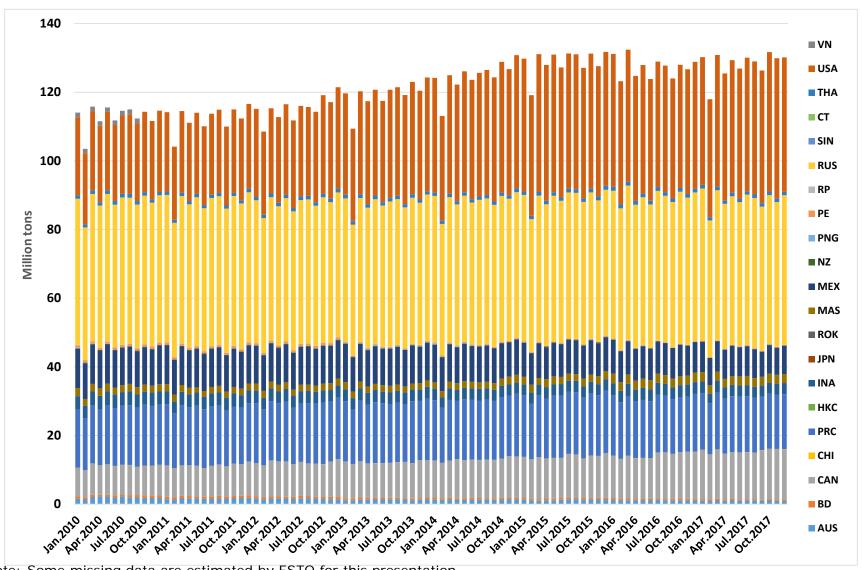
Jet Kerosene

Negative Stock Values

126 data points – 11 products & 9 flows



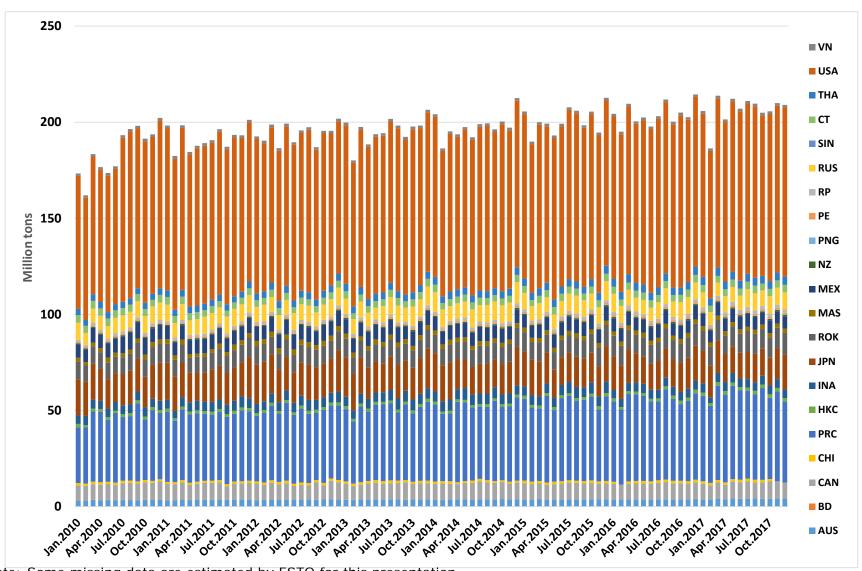
### Monthly oil production data



Note: Some missing data are estimated by ESTO for this presentation



### Monthly oil demand data



Note: Some missing data are estimated by ESTO for this presentation

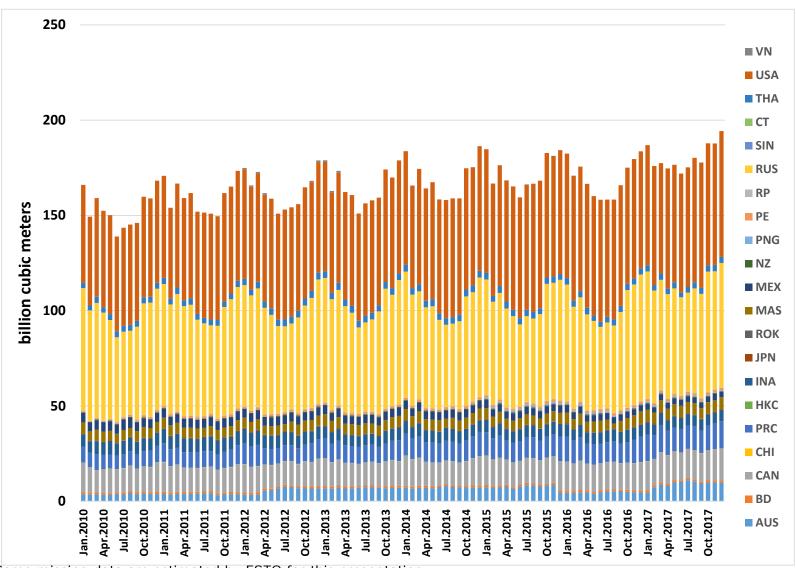


# Monthly gas data

Monthly Gas Data Collection						
Withing Gas Data Concetion						
Member Economy:						
Month:						
Year:						
rear:						
	Natural Gas	Natural Gas	of which:LNG	of which:LNG	of which wing line	of which wingling
	Million m <sup>3</sup>			TJ	of which: pipeline Million m <sup>3</sup>	of which: pipeline TJ
	(at 15°C, 760 mm Hg)	TJ (Gross Calor. Value)	1000 ton	(Gross Calor. Value)	(at 15°C, 760 mm Hg)	
Indigenous Production	(at 15 C, 760 min ng)	(Gross Calor, Value)		(Gross Calor, Value)	(at 15 C, 760 Hilling)	(Gross Calor, Value)
•						
Imports						
Exports						
Stock Changes (+ or -)						
Gross Inland deliveries (calculated)	0.00	0.00				
Statistical Difference						
Gross Inland deliveries (observed)						
of which: Power Generation						
Total Stocks on National Territory- Opening						
Total Stocks on National Territory- Closing						
AVERAGE GROSS CALORIFIC VALUES:	Unit: KJ/cubic m					
	Natural Gas					
Indigenous Production	#DIV/0!					
Imports	#DIV/0!					
Exports	#DIV/0!					
Average	#DIV/0!					
CONVERSION FACTOR OF LNG(MASS TO VOLUM						
	LNG					
CONVERSION FACTOR						



### Monthly gas production data



Note: Some missing data are estimated by ESTO for this presentation



### The APEC energy database



The APEC energy database can be accessed at:

http://www.egeda.ewg.apec.org/



### Important notes

Data submission by EGEDA members are not mandatory but fortunately, 20 of 21 all member economies provide annual data

Not all member economies are also able to provide stock level data

Four member economies are not submitting quarterly data and several economies submit after the deadline. Also, several economies are not able to submit complete data

For monthly oil and gas data, one economy had not submitted since October 2010.

The EGEDA secretariat, Energy Statistics and Training Office (ESTO) of the Asia Pacific Energy Research Centre (APERC) will continue to encourage member economies to submit complete and timely data

Should EGCFE need data, please don't hesitate to use the APEC energy database. It can be accessed at: <a href="http://www.egeda.ewg.apec.org">http://www.egeda.ewg.apec.org</a>





# Thank you for your kind attention

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









