



## Result of the Pre-workshop survey

Joint APEC-IEA Training Workshop on End-use Energy Consumption Data and Energy Efficiency Indicators-Part 2 20<sup>th</sup> APEC Workshop on Energy Statistics

15 - 17 November 2022 (Virtual Event)

Risa Pancho, ESTO/APERC



#### **Outline of the questionnaire**

#### **□Objectives of the questionnaire are:**

- To identify the data availability regarding end-use energy consumption and energy efficiency indicators
- To understand the energy information system of economies
- To explore the perceived value of international collaboration
- **□**The survey was conducted in June 2022.
- **□7** economies answered this questionnaire.



#### **Contents of the questionnaire**

## □Part I – Current data collection process and data availability for end-use energy consumption and related activity

- ●I-A/ Institutional arrangements
- ●I-B/ Data collection and data availability of end-use energy consumption and related activity

# □Part II – International collaboration for end-use energy consumption and related activity

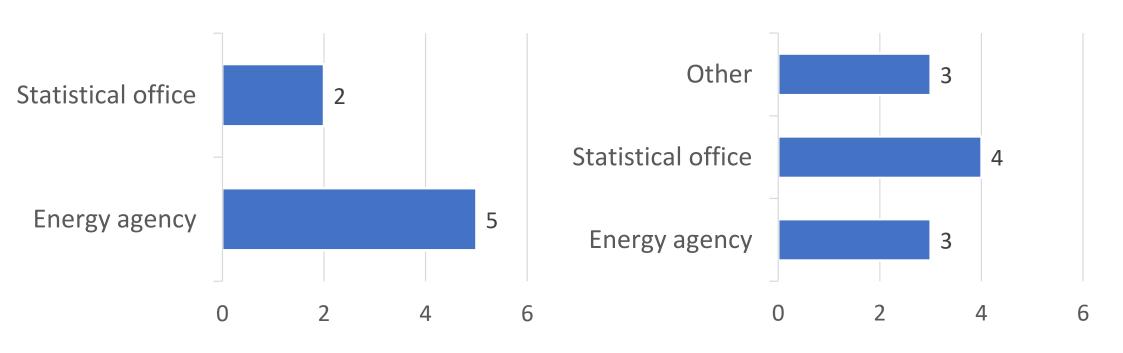
- •II-A/ International reporting
- ●II-B/ Areas of focus



#### Institutions responsible for the data collection of end use energy consumption

#### Mainly responsible for collection

#### **Involved in process**

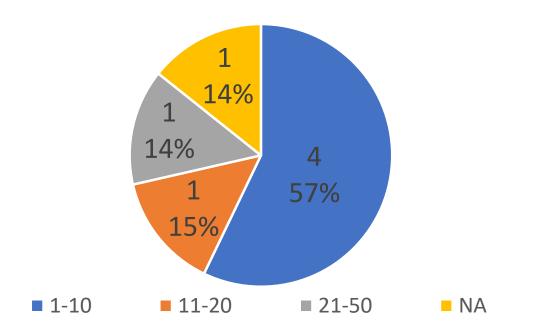


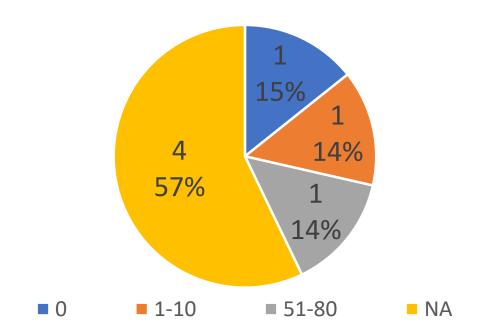


#### The number of full-time employees (FTEs)

## The data collection of end-use energy consumption

#### **Energy efficiency in your institution**







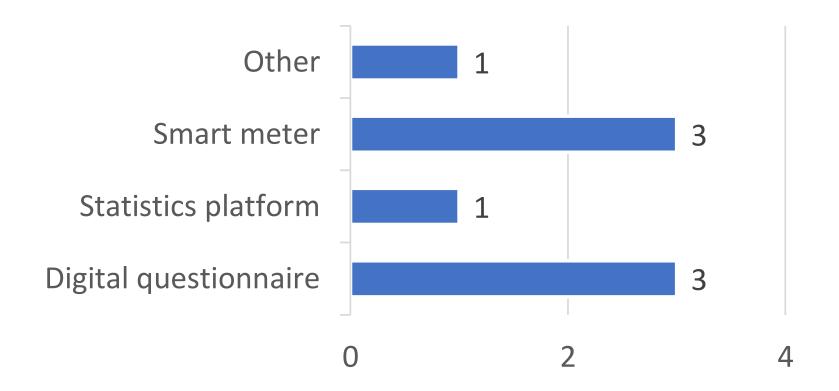
#### The main use of the data collection of end-use energy consumption



\*including climate related



## The technologies are used (or planned to be used) to collect end-use energy consumption





### **Industry and AFF (Agriculture, Fisheries and Fishing)**

#### **End use energy consumption**

		The method(s) of collection							
		Survey	Admin. sources	Measuring	Modelling	Mixed sources	Don't know	NA	
	Ferrous metals	1	2	0	0	0	1	2	
	Non-ferrous metals	2	3	0	0	0	1	1	
	Non-metallic minerals	2	3	0	0	0	1	1	
	Chemicals	2	3	0	0	0	1	1	
	Transport equipment	2	2	0	0	0	1	2	
	Machinery	2	2	0	0	0	1	2	
End use	Food, beverages & tobacco	2	2	0	0	0	1	2	
energy	Pulp, paper & printing	2	2	0	0	0	1	2	
consumption	Wood & wood products	2	2	0	0	0	1	2	
	Textile and leather	2	3	0	0	0	1	1	
	Total manufacturing	2	3	0	0	1	1	0	
	Mining & quarrying.	2	3	0	0	0	1	1	
	Construction	1	2	0	0	1	1	1	
	Total industry	1	3	0	0	1	1	1	
	AFF	1	2	0	0	0	1	3	



#### **Commercial/Services**

#### **End use energy consumption/Activity**

			The method(s) of collection								
		Survey	Admin. sources	Measuring	Modelling	Mixed sources	Don't know	NA			
	Space heating	2	0	0	1	0	0	4			
End use	Space cooling	3	0	0	1	0	0	3			
energy	Cooking	3	0	0	1	0	0	3			
consumption	Lighting	3	0	0	1	0	0	3			
	Total commercial	3	2	0	1	1	0	1			
Activity	Floor area	0	1	0	0	1	1	3			



#### **Residential -1**

### **End use energy consumption**

		The method(s) of collection							
		Survey	Admin. sources	Measuring	Modelling	Mixed sources	Don't know	NA	
	Space heating	3	1	0	1	0	0	2	
	Space cooling	4	1	0	1	0	0	1	
	Water heating	4	1	0	1	0	0	1	
	Cooking	4	1	0	1	0	0	1	
End use	Lighting	4	1	0	1	0	0	1	
energy	Refrigerators &								
consumption	freezers	4	1	0	1	0	0	1	
	Other kitchen	4	1	0	1	0	0	1	
	Laundry	4	1	0	1	0	0	1	
	TV PC entertainment	4	1	0	1	0	0	1	
	Total residential	2	3	0	1	2	0	0	



#### **Residential -2**

### **Activity**

		The method(s) of collection								
		Survey	Admin. sources	Measuring	Modelling	Mixed sources	Don't know	NA		
	Dwellings	1	3	0	0	1	0	1		
Activity	Floor area	1	1	0	0	0	1	3		
	HDD / CDD*	1	1	0	1	0	2	3		



### **Transport -1**

#### **End use energy consumption**

		The method(s) of collection						
		Survey	Admin. sources	Measuring	Modelling	Mixed sources	Don't know	NA
	Road	1	3	0	0	0	0	3
End use	Rail	0	4	0	0	0	0	2
energy	Aviation	0	4	0	0	0	0	2
consumption	Navigation	1	2	0	0	0	0	3
	<b>Total transport</b>	1	4	0	0	1	0	1



### **Transport -2**

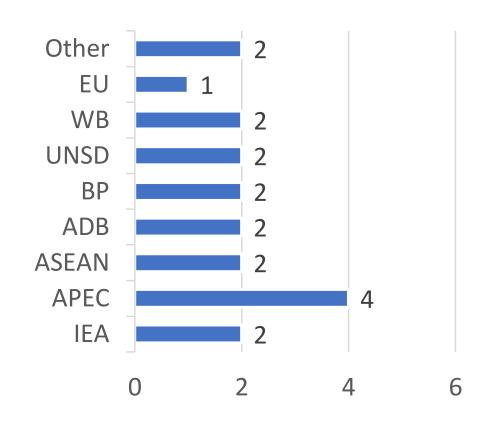
### **Activity**

		The method(s) of collection							
		Survey	Admin. sources	Measuring	Modelling	Mixed sources	Don't know	NA	
	Pkm – Total	0	2	0	0	1	1	2	
	Pkm – by vehicle type	0	2	0	0	1	1	2	
	Tkm – Total	0	0	0	0	1	1	4	
	Tkm – by vehicle type	0	0	0	0	1	1	4	
Activity	Vkm – Total	0	2	0	0	1	1	2	
Activity	Vkm – by vehicle type	0	2	0	0	1	1	2	
	Stock – Passenger total	0	2	0	0	1	1	2	
	Stock – Passgr. by vehicle type	0	2	0	0	1	1	2	
	Stock – Freight total	0	1	0	0	1	1	3	
	Stock – Freight by vehicle type	0	1	0	0	1	1	3	



#### International collaboration -1

# International organisation which economies are reporting the end-use energy consumption data





#### **International collaboration -2**

## Workshops/trainings organized by or with an international organization that your team/institution participated (in the past 3 years)

- IEA Energy Statistics Training Course
- Seminar on Energy Supply and Demand Outlook
- APEC Workshop on Energy Statistics
- APEC Energy Modeling Seminar (APERC)
- EGEDA training course on energy statistics
- Others (organised by ACE, ERIA, IAEA, IPCC, IRENA and others)



#### **Findings**

- □ Some of the economies are facing a shortage of full-time employees(FTEs) for the data collection of end-use energy consumption and Energy efficiency.
- ☐ Compared to End use energy consumption in sectors of Commercial, Residential, and Transport, **Activity data** in these have not been collected much.
- **Survey** or **Admin. sources** are the common methods to collect the data for all sectors.
- ☐ If you have any questions for this slides, please email us: **esto@aperc.or.jp**







## Thank you for your kind attention.

https://aperc.or.jp

