



Asia-Pacific
Economic Cooperation



F.3. Report on the 21st APEC workshop on energy statistics

The 35th meeting of APEC Expert Group on Energy Data and Analysis (EGEDA)

17-19 January 2024 (UTC+8) – Hong Kong, China

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Outline

- ❑ Workshop Objective and Agenda
- ❑ Session 1-6 Recap
- ❑ Evaluation by Participants

21st APEC workshop on energy statistics

- **12-14 September 2023** in Tokyo
- **Objective:** Enhance participants' knowledge of **hydrogen, district cooling, grid-scale electricity storage, electric vehicles (EVs)** and other emerging new energy technologies, in order to facilitate data collection.
- **Participants**
 - No. of participants – **57**
 - No. of economies – **14** (BD, CHL, PRC, HKC, INA, JPN, MAS, PNG, PE, PHL, CT, THA, USA, VN);
 - EGs/Fora – **EGCFE, EGNRET, APERC**
 - Experts and Speakers – **IEA, IRENA, APEC TPTWG, UNEP and METI**



- **Agenda**
 - Data requirements for energy transition
 - Hydrogen/ammonia/e-fuels
 - District cooling
 - Grid-scale electricity storage
 - Electricity consumption of EVs and PHEVs
 - Fugitive GHG emissions / carbon transport & storage

Session 1 – Data requirements for energy transition

Points of consensus

- Member economies acknowledge that new and emerging technologies will play a significant role in energy transition and meeting carbon neutrality goals.
- Having reliable and complete data is important for decision-making processes.
- Data collection templates need to be modified to capture new and emerging technologies.

Open issues

- Increasing amount of data available, yet the frameworks/guidance for collection and reporting lag.
- Legal frameworks that require mandatory collection and reporting of energy statistics of existing technologies are lacking.

Next steps

Member economies will continue collaborating with international fora (IEA, APERC, APEC Working Groups, UNEP, etc) to identify gaps and opportunities for improving data collection and reporting for existing and emerging technologies.

Session 2 – Hydrogen, ammonia and e-fuels

Points of consensus

- Participating member economies agree on collecting hydrogen data at this workshop.
- EGEDA, IEA and EUROSTAT will continue to work together to improve their hydrogen data collection templates.

Open issues

- EGEDA secretariat need to continue to improve the proposed hydrogen data collection template.
- Plan to collect by energy source and process, including CCS.

Next steps

EGEDA Secretariat will send the finalized version of the hydrogen data collection template by the end of 2023 along with a reporting instruction manual.

Session 3 – District cooling system

Points of consensus

- Cooling data in energy statistics would provide better information for analysis of the potential for energy efficiency improvement, increasing renewable energy share and expanding district cooling supply.
- District cooling data to be collected includes energy inputs, chilled water output, and quantity sold.

Open issues

- Some member economies that introduced the District Cooling System (DCS) have yet to report their data and are considering how to collect them.
- Legal frameworks that require mandatory data collection will be effective in collecting these data by collaborating with DC producer enterprises.

Next steps

Inclusion of district cooling data in the Energy Balance Table and updates discussed with international fora will be shared by the EGEDA secretariat to the members.

Session 4 – Grid-scale electricity storage development in APEC

Points of consensus

- All members agree on the importance of electricity storage in addressing risks in grid stability and for clean energy transition.

Open issues

- Different member economies/organizations/institutions have different definitions and methods for reporting data. Some economies are still behind on the regulatory framework despite having already implemented electricity storage systems.

Next steps

- Member economies shall continue to work with local authorities and power provider enterprises for effective data collection and standardization in the future.

For the collection of 2022 annual data, EGEDA secretariat will revise the annual electricity and heat questionnaire to collect electricity storage and capacity data.

Session 5 – Energy consumption of EVs, PHEVs and FCEVs

Points of consensus

- Economies plan to increasingly electrify road transport. Some are considering the use of advanced meter infrastructure (AMI), including smart meters collection of EV charging.
- The methodology in estimating EV consumption introduced by APERC and Chinese Taipei could be used to estimate electricity consumption in the road sector.

Open issues

- In most economies, electricity charging is not yet separated from the electricity consumption of the sector where the EVs are charged. Consumption of electric bicycles that are charged in the residential sector are also not accounted in the transport sector.
- EVs as storage technologies was not discussed in the workshop.

Next steps

EGEDA secretariat requests member economies to submit the electricity consumption data (measured or estimated) for EVs.

Session 6 – Fugitive methane emission and CO₂ sequestration

Points of consensus

- The EGEDA secretariat revised the data collection template to include methane, nitrous oxide emissions and transport and storage of CO₂, in response to the proposed new APEC goals of a 50% reduction in methane emission and increasing the shared of zero-carbon electricity.
- For economies that do not submit data, the secretariat will estimate emissions using energy balance data.

Open issues

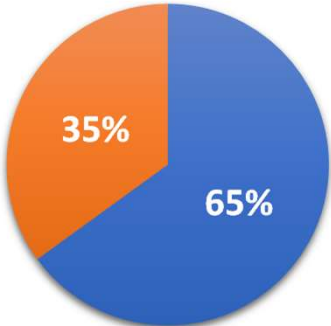
- There are considerable uncertainties in the calculation of fugitive GHG emissions. There are also significant differences between fugitive methane emissions calculated via IPCC Tier 1 methodology and the fugitive emissions submissions from some APEC economies.

Next steps

The EGEDA secretariat will request that economies submit additional data: CH₄, N₂O and transport/storage of CO₂.

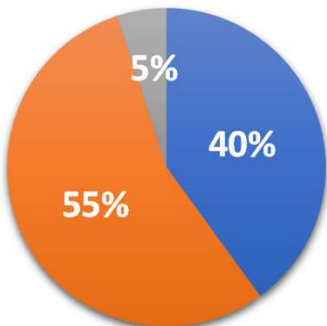
Evaluation by participants

Workshop achieved its objective



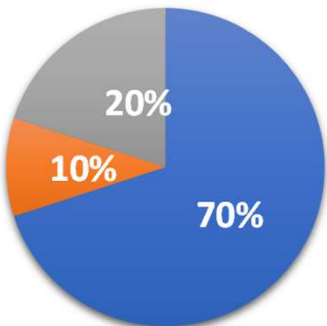
■ Strongly Agree ■ Agree ■ Disagree

Sufficient time allocation



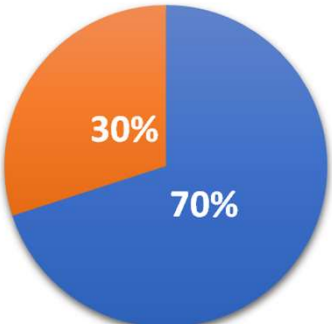
■ Strongly Agree ■ Agree ■ Disagree

Level of knowledge & skills improvement



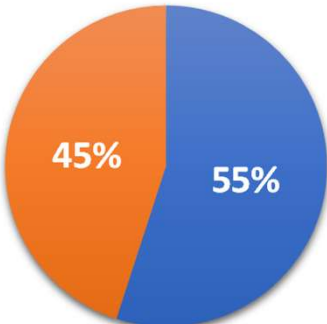
■ Improved 1 level ■ Improved 2 levels ■ Remain High/Very High

Relevance of agenda items and topics



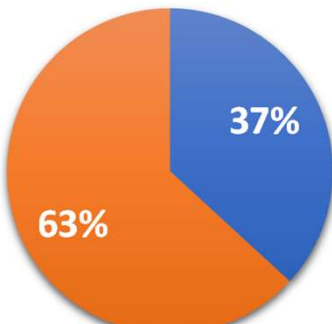
■ Strongly Agree ■ Agree ■ Disagree

Workshop well-organized & easy to follow



■ Strongly Agree ■ Agree ■ Disagree

Gender balance



■ Female ■ Male



Thank you.

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