



Work Progress Update in the EGNRET60

Jinlong MA

VP, APEC Sustainable Energy Center

Outline

1. **Activities Highlights and APEC Projects**
2. **APSEC Research: APEC Urban Energy Report**
3. **Progress on Policy Dialogue**

■ Attended the 66th APEC Energy Working Group Meeting




Work Progress Update in the EWG66

Li ZHU

President, APEC Sustainable Energy Center

- APSEC, as one of the entity research centers under APEC EWG mechanism, attended the **the 66th APEC Energy Working Group Meeting** and reported related progress in APEC Center Activities, in Bangkok, Thailand.

■ APSEC's report in the 67th APEC Energy Working Group Meeting



APSEC Sustainable Energy Center


Work Progress Update in the EWG67

LIZHU
President, APEC Sustainable Energy Center

Outline

- i. APEC Projects & Activities Highlights
- ii. <APEC Urban Energy Report> Progress
- iii. APSEC's Progress on Policy Dialogue
- iv. APSEC's Progress on ESCI 6
- v. Institution Building

The 67th APEC Energy Working Group and Associated Meetings, Lima, Peru, 24-26 Feb. 2024



APSEC Sustainable Energy Center

- With the support of the Lead Shepherd of EWG, APSEC requested the EWG Secretariat to report on important progress since the **67th APEC EWG Meeting in Lima, Peru**.
- APSEC's president's report discussed ongoing projects, the progress of the APEC Urban Energy Report, APSEC's contributions to Peru's policy dialogue, APSEC's contributions to ESCI; and updates to APSEC as an institution.

□ Data driven carbon neutral disaster resilient cities, APEC EWG 04 2022A

■ Summary

- Aim at accelerating the development towards carbon neutrality by increasing the number of APEC cities or municipalities having the **capacity to collect relevant data** and use a **multi-stakeholder dialogue** to become carbon neutral and energy inclusive;
- The project include **train local planning officers** of APEC municipalities to use a multistakeholder dialogue and to collect the specified data in cooperation with a local university;
- **A multi-stakeholder dialogue** will be used to elaborate 2050/2060 visions and for setting 2030 targets. The group of key stakeholders will include the energy poor populations of the lowest income quintile.

■ Progress

- **First event:** Online **training of trainers (ToT)** held on 22 – 23 August 2023, 65 participants, as well as from APEC bodies EGEDA, APSEC and from international organizations (IRENA, UCLG, ICLEI, CNCA, CDP, WCCD, WSCF) participated.
- Multistakeholder Dialogue approach elaborates a vision for carbon neutrality and disaster resilience in APEC cities and provinces.
- On local energy and climate data collection and elaborated best practices, collecting local energy and climate data.
- **Second event:** hybrid workshop **Multistakeholder Dialogue (MSD)** being held from 21-28 February 2024 in Manado, North Sulawesi Province, Indonesia.
- 106 participants from 11 member economies as well from international and inter-municipal organizations (IRENA, IIASA, CNCA) participate in the event.
- elaborates and adopts the Vision for Carbon Neutrality and Disaster Resilience for the Province of North Sulawesi.
- elaborates three 2030 targets for the Province of North Sulawesi. The targets are on energy intensity, carbon intensity and renewables share.
- Collected the relevant data and elaborated baseline scenarios as well as targets.

□ **EWG 05 2022S: Practical Experience and Prospect of Energy Access in APEC Region**

Project Information

- Information collection & analysis work been doing.
- Have found the funding for a workshop and is making preparation.

- ◆ At the earlier stage, APSEC had put forward proposals at the level of the APEC Energy Working Group to prepare a seminar on the theme of energy accessibility, which received attention and support from 21 economies in the APEC region.
- ◆ At present, a draft preparatory schedule for the seminar has been prepared. APSEC and National Industry-Education Platform of Energy Storage of Tianjin University will jointly hold the seminar. The arrangement is as follows.

May 2024: Issue a GI inviting economies to nominate experts, participants, and targeted invitations.

Sept 2024: To be held during the 10th anniversary of APSEC at a time to be determined.

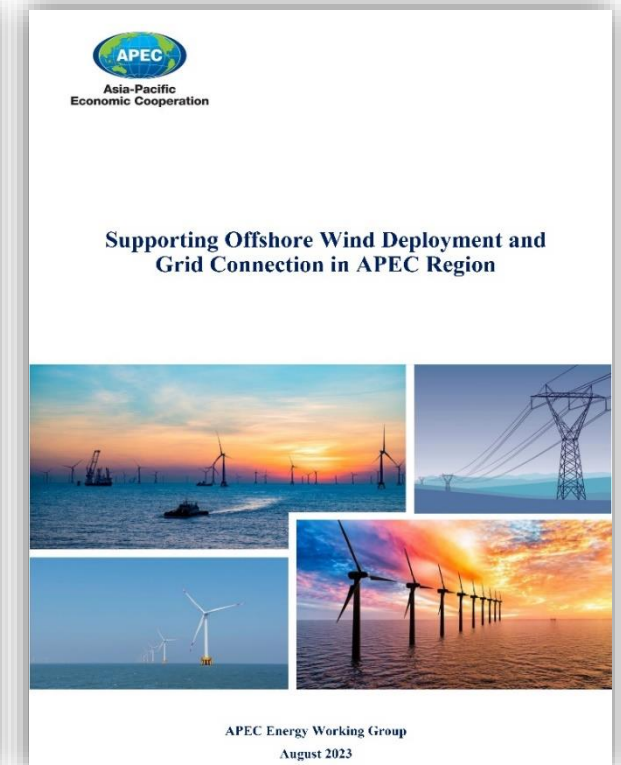
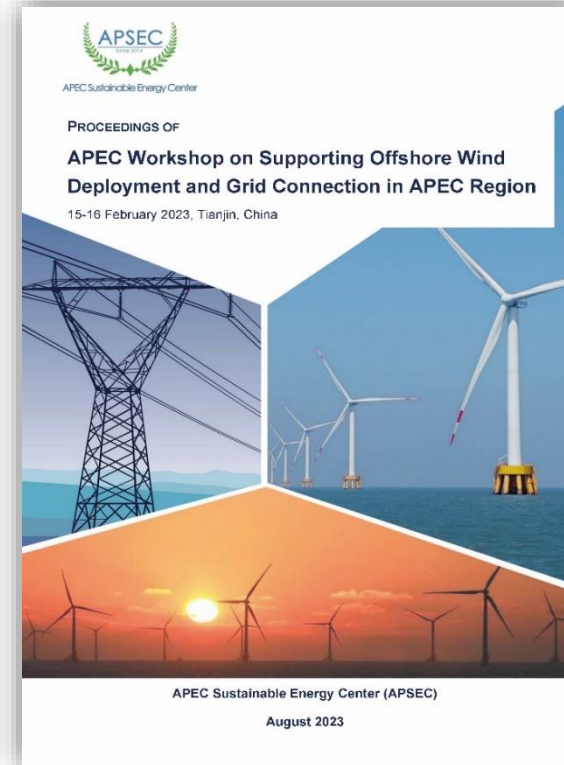
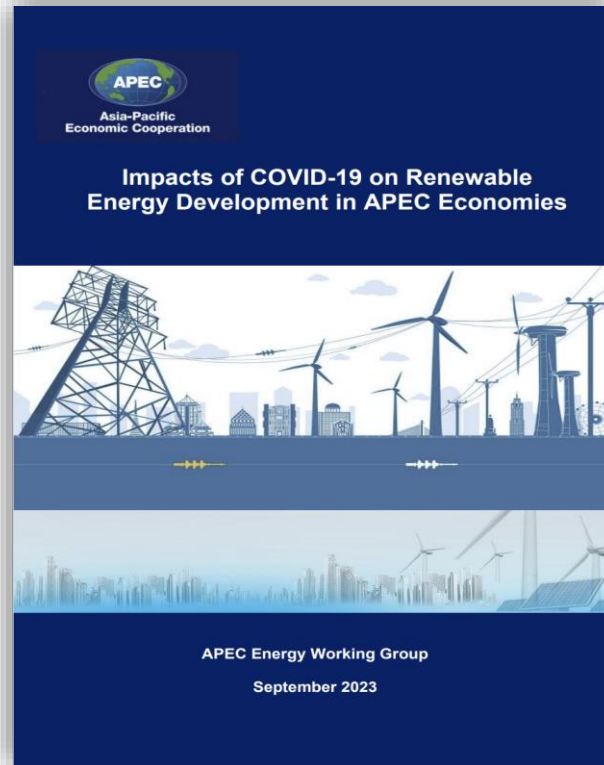
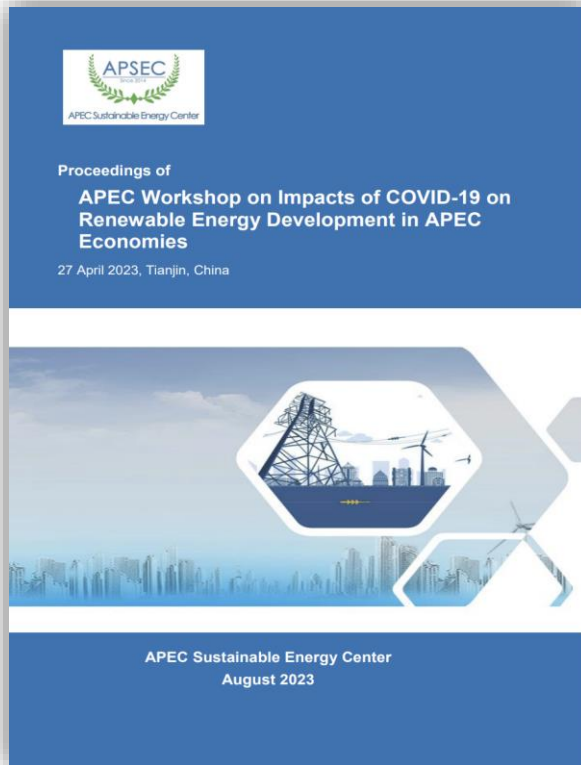
Theme of the seminar: *Technical Innovation and Equipment Products for Improving Energy Access in APEC region*

Venue: The St. Regis Tianjin

Meeting size: 30-50 persons

- Support Offshore Wind Deployment and Grid Connection in APEC Region (EWG 06 2021A)

- Impacts of COVID-19 on Renewable Energy Development in APEC Economies (EWG 07 2021A)



All tasks finished; finalizing the CRs.

APEC Urban Energy Report : 2023

Driving Cities toward carbon neutrality

- Focus on 'Urban Energy' in APEC region, jointly driving cities through the low carbon transition
- Technologies, policies, tools
- Database and indicators
- Historical trend
- Simulation, case studies and best practices
- Policy recommendations
- Two reports: Chinese and English versions have been completed
- Currently, in the final steps of the reports publishing



APEC Urban Energy Report: 2024

Storage Enables Transition

Role of energy storage in the changing energy landscape

- Improve power quality and provide reliable power to customers;
- Enhancing the stability of transmission and distribution systems ;
- Reduce the curtailment and and support renewable energy grid integration;
- Raise the value of renewable energy generated;
- Support the exploitation of distributed renewable energy resources;
- Increase the usage of existing facilities in the system, postpone or downsize the costly upgrading or expansion programs;
- Reduce energy supply costs through adjusting and shifting the pattern of energy-use.

Energy storage technologies

- Diversity of technologies;
- The new energy storage technology represented by electrochemical energy storage has the advantages of short construction cycle, fast response speed, high adjustment accuracy, flexible configuration, etc.

New energy storage technology: one of the foundations and cores for cities to cope with the increasing higher proportion of variable renewable energy and volatile loads in the system.

❑ Satisfying the urban energy demand

Energy storage technology can realize efficient supply and usage and achieve flexible scheduling of urban energy, balancing energy demand in different periods.

❑ Improve urban energy management

Energy storage technology, combined with advanced IT and telecommunication technologies such as the Internet of Things, big data and AI, can contribute to achieve smart urban energy management, including remote monitoring and data analysis of energy system, accurate prediction and optimal scheduling of urban energy consumption, and improve the efficiency of urban energy management.

❑ Improve the resilience of urban energy systems

Energy storage technology can be used as a "buffer" of the urban energy system, providing backup energy, ensuring the normal operation of key facilities, and improving the resilience and safety of the urban energy system.

❑ Address the urban environmental issues and sustainable development

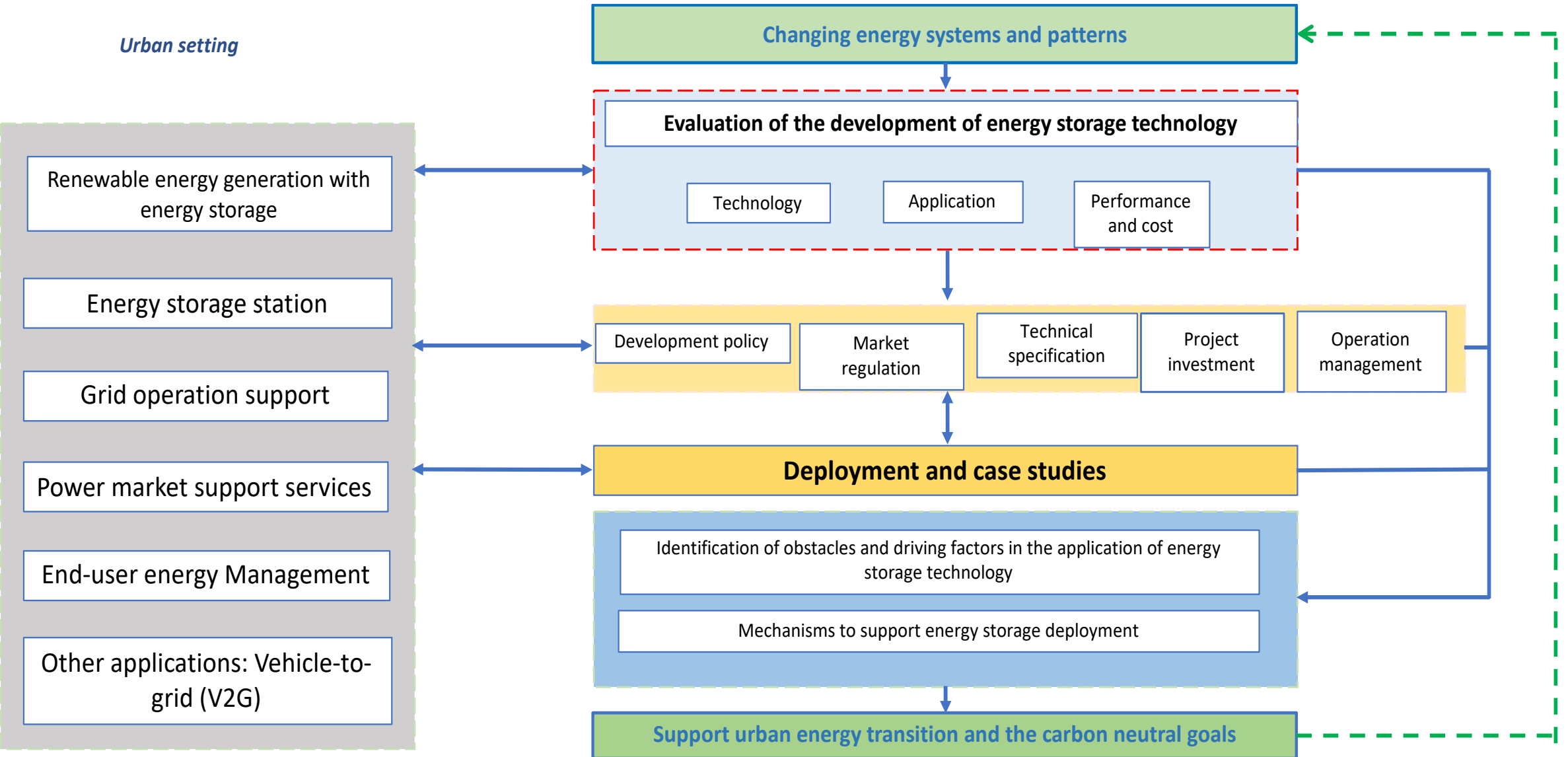
Energy storage technology supports the optimization of the urban energy structure, reduces the consumption of fossil energy and pollutant emissions, and promotes the sustainable development of the city.

❑ Promote innovation and development of urban industries

The development and application of energy storage technology will drive the improvement and upgrading of the relevant industrial chain, including the manufacturing, engineering, and technical services, which will incentivize industrial innovation and development, and promote the transformation and upgrading of the economy.

Urban Energy Report 2024 – Storage enables transition

Urban setting



- *Participation and involvement in the research are welcome.*
- *Please be in touch!*

Green hydrogen advisory team

APSEC has set up a green hydrogen advisory team consisting of 9 scholars and experts covering the fields of industry, academia and research.

- APEC Sustainable Energy Center
- College of Management and Economics, Tianjin University
- State Grid Energy Research Institute Co., Ltd (SGERI)
- New Energy Technology Research Institute of China Energy Group

Meeting with Ministry of Foreign Affairs and Ministry of Energy and Mines of Peru

- 10 January 2024, online
- Topic and scope of the policy dialogue
- Areas and activities of the collaboration

Feedback and advice about the Policy Dialogue Concept Note

- APSEC feedback about the Policy Dialogue Concept Note 'Green and Low-Carbon Hydrogen as an Enabler of the Energy Transition.'
- Tianjin University and the National Energy Storage Platform also attach great importance to this matter and look forward to contributing to the policy dialogue theme of "green and low hydrocarbon as a driver of energy transformation".

Research

- Participate in the green hydrogen policy research, mention the development roadmap, promote China's experience, and deeply discuss the cooperation and development opportunities between China and Peru.
- Cooperate with Peru to carry out technical exchanges on market mechanisms, technological innovation and infrastructure construction related to green and low-carbon hydrogen in the APEC region.
- Promote cooperation between capital and technology and transform technological achievements.

THANK YOU !

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