

APEC Project Update Hong Kong, China

31 March 2022

**THE 58TH MEETING OF THE APEC EXPERT
GROUP ON ENERGY EFFICIENCY &
CONSERVATION**

HKC APEC Projects

A

Completed Project

1. APEC Funded Project on Energy Intensity Reduction in the APEC Region's Urbanised Cities [EWG 08 2019A]

B

Project In Progress

1. APEC Funded Project on Capacity Building Workshop on Retro-commissioning (RCx) [EWG 09 2020A]
2. APEC Funded Project on Promoting Energy Efficient and Resilient Data Centre in the APEC Region [EWG 05 2021A]
3. Capacity Building Workshop on APEC's Goals of Doubling the Renewable Energy Share in the Energy Mix and Reducing Energy Intensity [EWG 08 2021S]

C

Project Proposal for Session 1, 2022

1. Promoting Energy Modelling in APEC Region

Energy Intensity Reduction in the APEC Region's Urbanised Cities [EWG 08 2019A] – Completed

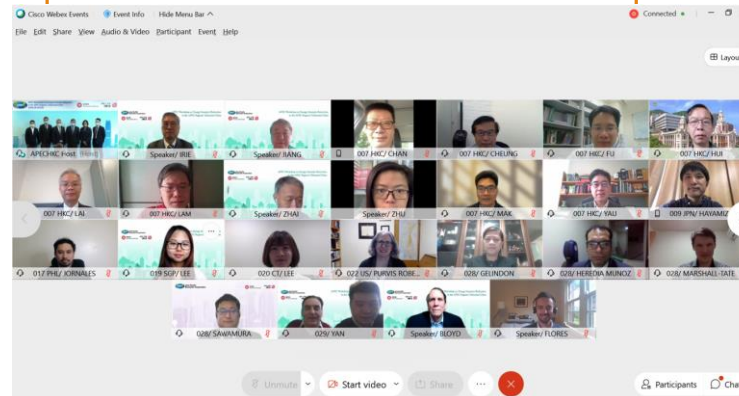
Project Status

Conceptual Study

- Conceptual study was completed and report was submitted on 24 AUG 2020.
- Energy intensity reduction performance in APEC member economies' urbanised cities was analysed.
- Seven cities in APEC region were shortlisted for the study.

Workshop

- Workshop was conducted on 23 MAR 2021
- over 100 participants from 12 APEC member economies and 7 organisations attended the Workshop



Final Study

- Final Study Report is submitted.
- Completion Report has been submitted to APEC.

APEC Capacity Building Workshop on Retro-commissioning (RCx) [EWG 09 2020A] – In Progress

Project Objectives

- Share the experience and best knowledge-based practices of Retro-commissioning
- Build capacity by collaborating with policy-makers, experts, academia, international organisations, practitioners and related stakeholders in developing RCx implementation frameworks, guidelines, and training programmes in pursuing facilitative measures that will expedite economic rebound.

Project Scopes

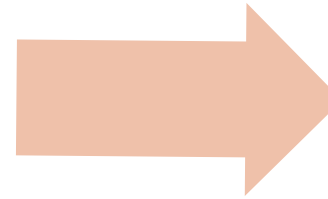
- Provide a platform for fostering the growing importance of RCx from the perspective of improving energy efficiency in driving progress toward meeting the energy intensity reduction goal of APEC and increasing employment opportunities and economic activities post COVID-19.
- Organize a capacity building workshop cum training to share retro-commissioning (RCx) guidelines and developments.

APEC forum:	EWG / EGEEC
Co-sponsoring economies:	Japan; Singapore; Thailand; The United States; Viet Nam
Expected Start Date:	May 2021
Project Completion Date:	June 2022
Project Cost:	USD 234,753

Project Status

Workshop cum Training

- The Event was conducted on 20-21 JAN 2022
- More than 100 experts and delegates from 11 APEC member economies are attending the workshop cum training to exchange knowledge on RCx.
- The RCx initiative serves as a timely check on the energy performance of an existing building to identify energy saving potential for operational improvements. Through tuning and adjusting building services systems and equipment, optimal operation efficiency can be achieved, thus saving energy and reducing carbon emissions.



Workshop Summary

- Workshop Summary is under preparation.



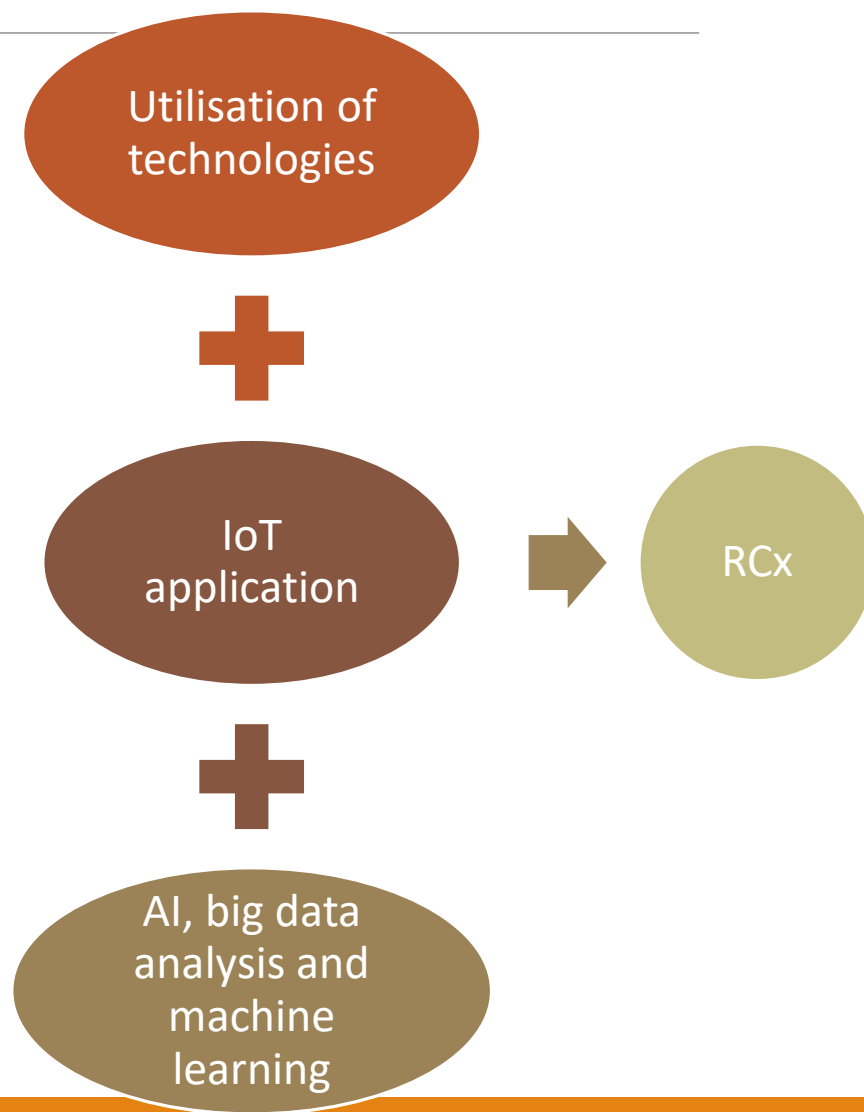
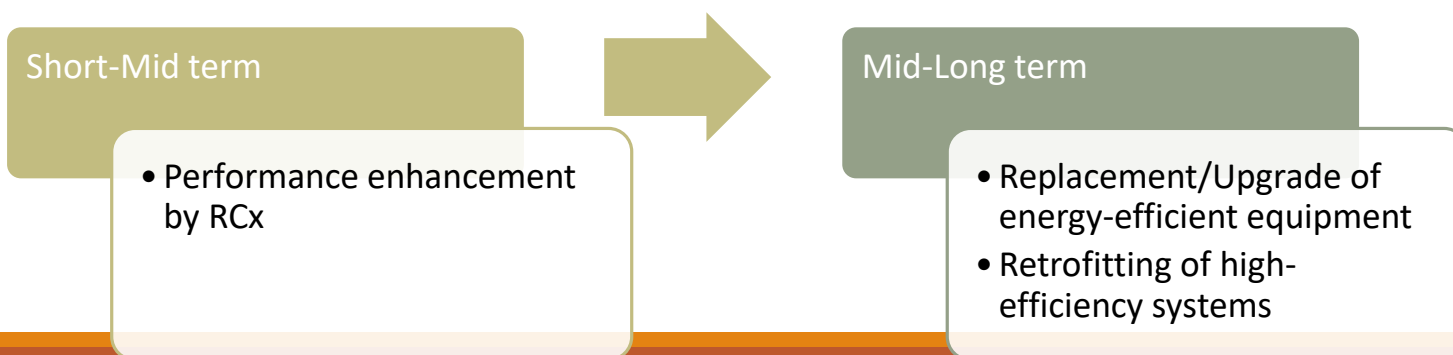
B1

Insights from the APEC Workshop cum Training on Retro-commissioning (RCx)

HKC has around 50% buildings aged more than 30. It is estimated that 70% of the buildings will have building aged more than 30 years after a decade.

RCx plays an important role in motivating the development of low carbon and high-performance buildings.

Suggestions to form a **RCx Resources Hub** for further collaboration and knowledge transfer





An online platform for different economies

- Share Technical knowledge and new technologies
- Legal Framework on RCx
- Registration Scheme
- Political incentive for RCx
- Promotion and Publicity

Co-learning cross boundary



Contact us for information sharing:



rcx@emsd.gov.hk

Promoting Energy Efficient and Resilient Data Centres in the APEC Region [EWG 05 2021A] – In Progress

Background

- New normal, including working from home, e-learning, e-commerce and e-shopping, has created the need for more use of IT and data centre services.
- In accordance with IEA Data Centre and Data Transmission Network Tracking Report in June 2020, the global internet traffic surged by almost 40% between Feb and Apr 2020. This growth comes on top of the rising demand for digital services over the past decade. However, rapid improvements in energy efficiency have helped limit energy demand growth from data centres and data transmission networks, which accounted for around 1% of global electricity use in 2019.
- Under “Digital Economy and Technology” of the APEC 31st Ministerial Meeting 2020, SOM instructs Senior Officials to accelerate the implementation of the APEC Internet and Digital Economy Roadmap (AIDER) and welcome the APEC Roadmap on Digital Financial Inclusion.

Project Scope

- Analyse the energy efficiency and resilience policies, international guidelines and standards, practices and the deployment of I&T technologies for the data centre enable the “Digital Economy and Technology”.
- Organise a one-day capacity building workshop in June 2022 tentatively to share the pre-workshop study findings such as strengths of various energy forecast models and the experiences and practices of APEC economies on their use of energy models. A workshop summary of this project will serve as a valuable reference to promote APEC member economies on utilising energy modelling to put toward APEC goals.

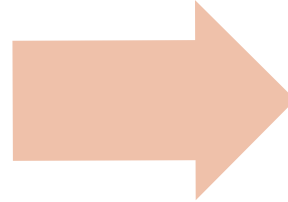
APEC forum:	EWG / EGEEC
Co-sponsoring economies:	People’s Republic of China; Indonesia; Singapore; Thailand; the United States
Expected Start Date:	October 2021
Project Completion Date:	December 2022
Project Cost:	USD 276,944

Promoting Energy Efficient and Resilient Data Centres in the APEC Region [EWG 05 2021A] – In Progress

Project Status

Pre-workshop research

- Research is under processing.
- Best practices, certification schemes for data centres in each APEC member economies;
- New and Renewable energy applications in data centres;
- Applied I&T technologies; and
- Case study of energy efficiency green data centres.
- Email for survey will be issued to APEC member economies in this month.



Workshop

- Tentative to be held virtually in June 2022 at Hong Kong, China.
- GI circular will be circulated to member economies once ready.

Capacity Building Workshop on APEC's Goals of Doubling the Renewable Energy Share in the Energy Mix and Reducing Energy Intensity [EWG 08 2021S]

Background

- In August 2021, the Intergovernmental Panel on Climate Change Report estimated that unless there are immediate, rapid and large-scale reductions in greenhouse gas emissions, limiting warming to close to 1.5°C or even 2°C will be beyond reach in the next decades.
- With the United Nations Climate Change Conference 26th annual submit (COP26) due to take place in November 2021 and APEC members have announced carbon neutral goals, Hong Kong, China will collaborate with EGEE&C and EGNRET to organise a capacity building workshop to report and project the APEC regional goals progress, promote the effective energy intensity reduction and renewable energy policies and best practices, highlight new EE & RE policy and framework that helps to accelerate the progress toward achieving the APEC goals in combating the climate challenges.

Project Scope

- Organise a one-day / two half-day capacity building workshop alongside EGEEC/EGNRET joint meeting in October 2022 tentatively . The workshop will consist of 4 sessions:
 - ✓ Sharing of APERC's analysis on Energy Demand and Supply Outlook and COP26 Outcomes
 - ✓ Promoting new policy and initiatives per COP26 and net-zero plans to progress toward the APEC goals
 - ✓ Sharing key drivers of APEC economies
 - ✓ Promoting emerging innovative low-carbon and renewables technologies to meeting the APEC goals

APEC forum:	EWG / EGEEC/EGNRET
Co-sponsoring economies:	Singapore; Thailand; the United States
Expected Start Date:	November 2021
Project Completion Date:	June 2023

Promoting Energy Modelling in APEC Region [APEC Funded Project for Session 1, 2022]

Background

- The 2021 APEC Leader's Declaration acknowledges the need for urgent and concrete actions to transit to a climate-resilient future worldwide economy and appreciates carbon neutrality commitments in this regard. It is crucial for APEC member economies to implement effective green policies and substantially monitor against the achievements.
- Energy modelling is an indispensable instrument for forecasting energy consumption and tracking low carbon transition progress.

Project Scope

- This project will organise a one-day capacity building workshop to share the pre-workshop study findings such as strengths of various energy forecast models and the experiences and practices of APEC economies on their use of energy models. A workshop summary of this project will serve as a valuable reference to promote APEC member economies on utilising energy modelling to put toward APEC goals.

Status

- Concept Note is submitted.

APEC forum: EWG / EGEEC, EGEDA & APERC

Co-sponsoring economies: China, Australia, Singapore, Japan and USA

Expected Start Date: October 2022

Project Completion Date: February 2024

Project Cost: USD 160,395

THANK YOU!