

# EWG 04 2019A:

## Exploring Co-Benefit Opportunities for Renewable Energy and Energy Efficiency Projects in the APEC Region

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APEC EGNRET Meeting

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Month 2020

# Exploring Co-Benefit Opportunities for RE/EE Projects in the APEC Region

- **Project overseer**
  - ✓ Department of Alternative Energy Development and Efficiency (DEDE)
- **Duration**
  - ✓ Aug 2019 – Oct 2021 (extension due to COVID-19 pandemic)
- **Contractor & Team members**
  - ✓ National Metal and Materials Technology Center (MTEC), Thailand
- **Co-sponsoring economies**
  - ✓ United States of America; Japan; Chinese Taipei; Hong Kong, China

# Project details

- Objectives

- ✓ To **share best practices** of successful **joint projects for RE&EE** implementation with co-benefit in power **generation and distribution, transport, and buildings sector**
- ✓ To develop **guideline with criteria** and framework for joint RE&EE projects with co-benefit technically and economically
- ✓ To share example of **cost benefit analysis (CBA)** on successful projects (e.g. RE&EE in transport sector - EV & biofuel)
- ✓ To **build capacity and network** for co-benefitting project developers in designing, planning and assessing potential RE&EE joint project

- Workshops & seminar

- ✓ 1<sup>st</sup> WS (1 day meeting & 1 day technical visit): Mar 2021 **held hybrid with online participation from abroad and in-person participation in Thailand**
- ✓ 2<sup>nd</sup> WS (1 day meeting & 1 day technical visit): Jun 2021 **held hybrid with online participation from abroad and in-person participation in Thailand**

- Outcomes

- ✓ Guideline for joint RE&EE project proposal evaluation with training materials to share example of conducting cost benefit analysis (CBA) on successful projects

# Extensive reviews of RE/EE projects

## Transportation

Low carbon buses - China



Electric bus project - South Korea



Smart park - Taiwan



Clean diesel action plan - China



Smart grid demonstration project - Japan



Electric vehicle smart charging



## Power

M5BAT Project - Germany



Hybrid energy storage & system - Europe



Hydrelia technology [Floating PV] - France



Landfill gas capture for electricity generation - China



Fukushima hydrogen energy research field - Japan



Smart grid/Micro grid - Thailand



## Building

APEC Nearly [Net] Zero Energy Building Program



ASEAN Energy Awards [AEA] - Green Buildings



Building and Construction Authority of Singapore [BCA]



Thai's Rating of Energy and Environmental Sustainability [TREES]



District Heating Network - China [Qingdao]



Renewable Power-to-heat

