

Summary Report of APEC Forum on Capacity Building to Accelerate Investment on Energy Resilient Infrastructure towards APEC Energy Goals

Nuwong Chollacoop*, Project Overseer

Kampanart Silva, Alternate Project Overseer

Pidpong Janta, Assistant Researcher

Low Carbon Energy Research Group (LCRG)

National Energy Technology Center (ENTEC)

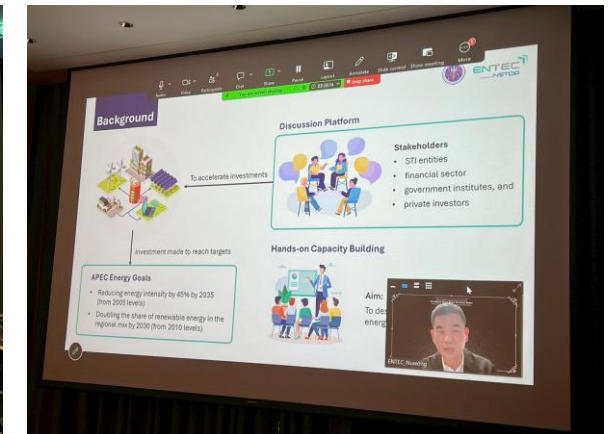
National Science and Technology Development Agency (NSTDA)

Ministry of Higher Education, Science, Research and Innovation (MHESI)

nuwong.cho@entec.or.th

About the Forum

- **Name:** APEC Forum on Capacity Building to Accelerate Investment on Energy Resilient Infrastructure towards APEC Energy Goals
- **Objectives of the forum**
 1. To align stakeholder expectations, and inform subsequent project implementation
 2. To strengthen collaborative engagement for EWG-PPSTI cross-fora cooperation
- **Venue, date and time:** Burirom Meeting room, Amari Bangkok Hotel on March 30, 2026, at 13:30-17:00
- **Co-hosts:** EGNRET Secretariat; Department of Alternative Energy Development and Efficiency (DEDE), Thailand; and National Energy Technology Center (ENTEC), Thailand
- **Number of participating participants and economies:** 20 participants from 6 economies



About the Project | PPSTI 103 2025A

- **Project Title:** Capacity Building to Accelerate Investment on Energy Resilient Infrastructure towards APEC Energy Goals
- **APEC Forum:** Policy Partnership on Science Technology and Innovation (PPSTI)
- **Co-Proposing Forum:** Energy Working Group (EWG)
- **Fund Source:** APEC Support Fund (ASF): Energy Efficiency, Low Carbon and Energy Resiliency Measures (EELCER)
- **Proposing Economy:** Thailand
- **Co-Sponsoring Economies:** Indonesia; Japan; Korea; Chinese Taipei; Viet Nam; (Chile)
- **Budget:** 92,448 USD (APEC Funding) + 14,000 USD (Self-Funding) = 106,448 USD

Background



To accelerate investments

investment made to reach targets

APEC Energy Goals

- Reducing energy intensity by 45% by 2035 (from 2005 levels)
- Doubling the share of renewable energy in the regional mix by 2030 (from 2010 levels)

Discussion Platform



Stakeholders

- STI entities
- financial sector
- government institutes, and
- private investors

Hands-on Capacity Building



Aim:

To design financially feasible energy infrastructure projects

Objective and Outputs

- **Objective**

- To accelerate **investment in resilient energy infrastructures** in APEC Economies to achieve APEC Energy Goals by building their **capacity to develop bankable resilient energy infrastructure projects** and co-design financial risk-pooling mechanisms.

- **Outputs**

- **Research report** on **potential energy infrastructures, investment and financial challenges, and possible policy measures.**
- **Two-day workshop** to **design bankable resilient energy infrastructure projects.**
- **Project report** "Capacity Building to Accelerate Investment on Energy Resilient Infrastructure towards APEC Energy Goals" which will include ways to design bankable resilient energy infrastructure projects and **recommendations to further accelerate investment for resilient energy infrastructure.**

Outcomes and Beneficiaries

- **Outcomes**

- **Strengthened capacity of APEC members** in designing bankable resilient energy infrastructure projects
- **Policy recommendations** to further accelerate investment on resilient energy infrastructure
- **Strengthened collaborations** to accelerate investment on resilient energy infrastructure

- **Beneficiaries**

- **Researchers or academicians** from STI institutes in respective APEC economies who have background in energy infrastructures
- **Practitioners in financial sectors**, e.g., from central banks, commercial banks, stock exchange, or researchers from financial technical support institutes
- **Policymakers from ministries or governmental entities** who are responsible for STI policies for resilient energy infrastructure

Agenda

Time	Session
13:00 – 13:30	Networking & Registration
13:30 – 13:35	Welcome Remarks <i>by DEDE, Thailand</i>
13:35 – 13:40	Opening Remarks <i>by EGNRET Chair</i>
13:40 – 13:45	Group Photo
13:45 – 14:05	Thailand’s Renewable Energy Policy Direction <i>by DEDE, Thailand</i>
14:05 – 14:25	Capacity Building to Accelerate Investment on Energy Resilient Infrastructure towards APEC Energy Goals (PPSTI 103 2025A) – Project Overview <i>by ENTEC, Thailand</i>
14:25 – 14:50	Energy Sector Resilience: An overview of the IEA's ongoing work on energy sector resilience <i>by Hugh Hopewell, Senior Energy Analyst, IEA (Virtual)</i>
14:50 – 15:10	Coffee Break
15:10 – 15:35	Investment on Energy Resilience – A case Study of Phi Suea House <i>by Sebastian Justus Schmidt, Phi Suea House, Thailand</i>
15:35 – 16:00	Vietnam’s Energy Transition: Green Financing for Transmission Infrastructure <i>by Dr. Nguyen Linh Dan, Hanoi University of Science and Technology (HUST), Viet Nam (Pre-recorded)</i>
16:00 – 16:25	Strengthening Grid Resilience through Smart Grid Investment in Chinese Taipei <i>by Mr. Tommy Chen, ITRI, Chinese Taipei</i>
16:25 – 16:50	Discussion: Brainstorming on ideas to accelerate investment on resilient energy infrastructure and case studies <i>by ENTEC, Thailand</i>
16:50 – 17:00	Closing Session & Next Steps <i>by ENTEC, Thailand</i>

Thailand's Renewable Energy Policy Direction (DEDE, Thailand)

- Renewable energy can contribute to resilience of the energy system, especially at economy level.
- Thailand is trying to enhance resilience against disasters and climate change.

PPSTI 103 2025A – Project Overview (ENTEC, Thailand)

- The project aims to link experts and practitioners in energy sector to those financial sector.
- It covers the whole value chain of energy system (production, transmission, distribution, end use).

Energy Sector Resilience: IEA's ongoing works (IEA)

- Activities in IEA covers wide interpretation of resilience (with focus on climate resilience at this stage).
- There is a necessity to enhance resilience at economy level (or even regional level).

Investment on Energy Resilience – A Case Study of Phi Suea House (Thailand)

- Phi Suea House connects renewable energy with the concept of resilience at facility level.
- It plans to introduce local energy management system to enhance digital resilience.
- They installed solar panels facing different directions for sunlight at various time (resilience > efficiency)

Viet Nam's Energy Transition: Green Financing for Transmission Infrastructure (HUST, Viet Nam)

- Resilience of transmission lines against various disruptions needs to be enhanced.
- There are various solutions, e.g., regulatory reforms, new technology adoption, ODA.

Strengthening Grid Resilience through Smart Grid Investment in Chinese Taipei (ITRI, Chinese Taipei)

- Grid resilience against outage risks needs to be considered at economy level.
- Smart grid, VPP, and AMI can enhance resilience and flexibility (especially with high % of renewables).

Findings from Presentations

Discussion Ideas to accelerate investment on resilient energy infrastructure and case studies

- As the project focuses on linking energy sector to financial sector, resilience can be discussed from various **dimensions** (climate, disaster, geopolitics, digital, etc.) of **different parts of the value chain** (production, transmission, distribution, end use) at different scale (facility, economy, region).
- Key conditions for accelerating investment were confirmed (**comprehensive assessment, proposed measures, and evaluation of economic feasibility**). Additional conditions might be needed, e.g., **financing solutions, enabling regulations**.
- It is **difficult to demonstrate bankability** of energy efficiency projects (and so with resilience projects) – if conditions to make projects bankable can be identified, opportunities for resilience investment may arise.

Matrix	[Energy Value Chain] Production – Transmission – Distribution – End use
[Dimensions] Climate & disaster Digital Geopolitics ...	



Future Expectation from EGNRET and EWG



Feedback on research and project reports

Suggestions and contributions on **relevant case studies**

Nomination of participants and speakers to the **onsite workshop**

Thank You

for your attention

Nuwong Chollacoop*, Project Overseer

Kampanart Silva, Alternate Project Overseer

Pidpong Janta, Assistant Researcher

Low Carbon Energy Research Group (LCRG)

National Energy Technology Center (ENTEC)

National Science and Technology Development Agency (NSTDA)

Ministry of Higher Education, Science, Research and Innovation (MHESI)

nuwong.cho@entec.or.th