

# ASIA CLEAN ENERGY FORUM 2025

Empowering the Future: Clean Energy  
Innovations, Regional Cooperation and  
Integration, and Financing Solutions

2–6 June | ADB Headquarters



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## DEEP DIVE WORKSHOP

# Towards a Cleaner Future: Accelerating Global Cooperation and Innovation for Sustainable Energy

Wednesday, 4 June 2025 | 2:00 p.m.–5:30 p.m.



ASIAN DEVELOPMENT BANK



KOREA ENERGY AGENCY

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ADB



## ADB–KEA Collaboration for a Low-Carbon and Resilient Asia-Pacific

**Aiming Zhou**

Deputy Country Director, PRC Resident  
Mission  
Asian Development Bank

# A Long-Standing Partnership

- ❖ 2012: MOU signed to develop joint programs in energy efficiency, renewable energy, and climate change
- ❖ ADB recognized KEA as a Center of Excellence
- ❖ MOUs renewed in 2016, 2019, and 2022, demonstrating continued commitment
- ❖ Build on shared goals in low-carbon development, innovations, and regional cooperation

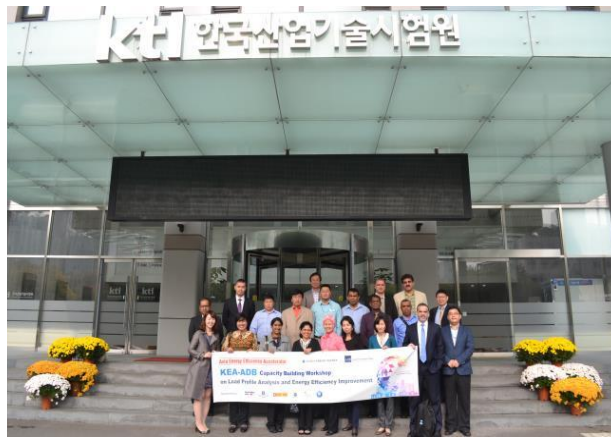




# Deepening Collaboration

- ❖ **Knowledge exchange:** workshops, brown bags, study tours
- ❖ **Energy audits:** investment-grade energy audits
- ❖ **Institutional support:** energy audit tool donation, training of energy auditors, development of application tool
- ❖ **Joint pilot projects:** solar-diesel hybrid power plant, e-trikes, smart street lighting
- ❖ **Regional knowledge platform:** ACEF co-organization





# Knowledge Exchange



- ◆ **October 2013:** Brown bag seminars in ADB Headquarters in Manila on (i) energy storage system application for RE and power frequency control, (ii) advanced battery energy storage system, and (iii) building energy efficiency
- ◆ **December 2013:** Capacity and knowledge sharing program in Korea for Lao PDR on energy efficiency policies and programs
- ◆ **October 2015:** ADB-KEA capacity building workshop in Korea for Indonesia, Mongolia, Sri Lanka, and Kazakhstan on load profile management, building energy efficiency, and energy efficiency labeling
- ◆ **February 2018:** Knowledge sharing workshop for Sri Lanka on energy storage system (ESS) and building energy management system (BEMS)
- ◆ **July 2019:** Knowledge sharing in Korea for Bhutan on renewable energy policy.
- ◆ **September 2019:** ADB-KEA knowledge sharing workshop in Korea for Bhutan, Bangladesh, and Sri Lanka on demand-side energy efficiency.
- ◆ **August 2019:** Technical visit to Korea for Viet Nam, Indonesia, and Myanmar on smart city
- ◆ **November 2023:** ADB-KEA knowledge sharing workshop in Korea on GHG emission reduction for Bangladesh



# Energy Audits

- ◆ **November 2013:** Investment-grade energy audit in **Lao PDR** for (i) Lao Brewery Co., (ii) Lao Tobacco Co., and (iii) Lao Cement Co.
- ◆ **October 2014:** Investment-grade energy audit in **Sri Lanka** for (i) the Bank of Ceylon Building, and (ii) Lady Ridgeway Hospital
- ◆ **November 2017:** Investment-grade energy audit in the **Maldives** for (i) STELCO Office Building, (ii) a regional hospital and a power house in Raa Ungoofaaru Island
- ◆ **February 2019:** Investment-grade energy audit in **Bhutan** for (i) Jigmi Dorgi Wangchuck National Referral Hospital in Thimphu and (ii) Gedu College of Business Studies in Gedu, Chukha.
- ◆ **December 2021:** Investment-grade energy audit in **Viet Nam** of Da Nang Women and Children Hospital.

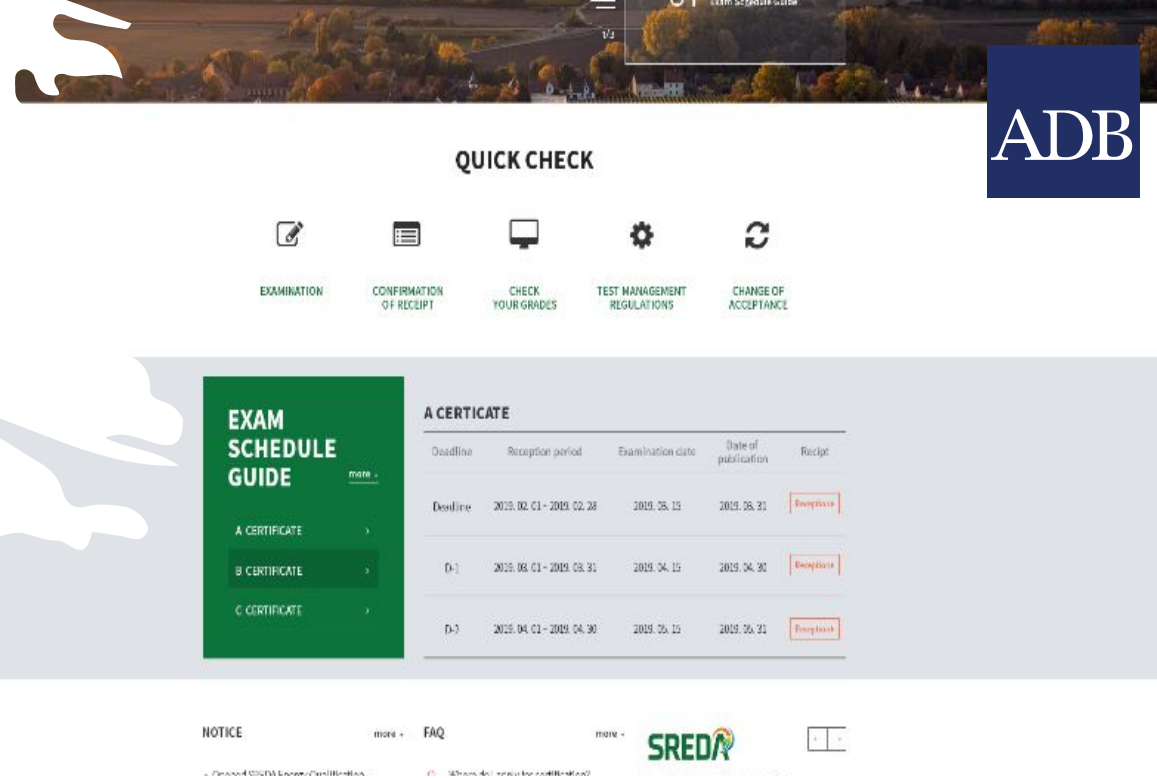


Helped identify actionable EE measures over a dozen large buildings and facilities, enabling DMCs to prioritize investments.



# Institutional Support

- ❖ **March 2019:** KEA donation of a set of new energy audit equipment to the Sustainable and Renewable Energy Development Authority of Bangladesh
- ❖ **March 2019:** Development of online application platform for energy auditor tests for the Sustainable and Renewable Energy Development Authority of Bangladesh
- ❖ **November 2019:** Intensive Training in Korea for Bangladesh Trainers of Energy Auditors





# Pilot Project: Cobrador Island in the Philippines

- ◆ **March 2016:** ADB, KEA, the Philippine National Electrification Administration (NEA), and Romblon Electric Cooperative, Inc.(ROMELCO) jointly completed and commissioned the Cobrador Island solar-diesel hybrid power plant, comprising a 30kW of solar PV array, a 15kW diesel generator, and a 180 kWh lithium-ion energy storage system, with a total capital cost of \$416,000
- ◆ **Development Impact:**
  - **Extended electricity access** from 8 hours to 24 hours per day for the entire island
  - **Increased household connection** from 161 to 260 homes
  - **Improved affordability:** electricity tariff reduced from P30 to P15 per kWh
  - **Enabled continued services** at health center, school, and village hall.
  - **Supported local livelihoods:** fishing, retail shops, and marvel processing benefited from reliable power.
  - **Economic uplift:** new appliances, extended work hours, and increased household income reported.
  - **Enhanced quality of life;** better lighting, comfort, and safety for families
  - The project concept was **replicated across the Philippines**



# Pilot Projects in Sri Lanka and Vietnam

- ◆ **December 2019:** ADB and KEA jointly completed a pilot project deploying **PV-based energy storage systems with electric trikes in Sri Lanka**
  - Funded by a grant from KEA with technical support from ADB
  - Enabled clean mobility and access to reliable energy
  - Reduced diesel use, air pollution, and noise
  - Demonstrated e-mobility integration with a renewable energy system.
  - Provided a replicable model for low-carbon transport solutions
- ◆ **December 2021:** ADB and KEA jointly completed a **smart street lighting pilot project** in Hoi An, Vietnam
  - KEA provided grant support, and ADB provided technical support
  - Replaced conventional streetlights with energy-efficient smart LEDs
  - Reduced municipal energy consumption and electricity bills
  - Improved urban safety, visibility, and livability
  - Showcased digital solutions for smart city development in Vietnam





# Co-organizing ACEF

- ❖ KEA has been a co-organizer and strategic partner of ACEF since 2015
- ❖ KEA has provided consistent financial and technical support
- ❖ KEA played a crucial role during the COVID-19 pandemic years by supporting virtual ACEF
- ❖ KEA has facilitated the participation of Korean experts and clean energy leaders
- ❖ KEA enhanced ACEF's role as Asia-Pacific's premier knowledge-sharing platform on energy
- ❖ Year 2025 marks 10 years of impactful KEA support for ACEF.



# Importance of Collaboration

- ❖ ADB-KEA partnership offered **regional solutions for regional challenges**
- ❖ Enabled DMCs to **access best practices and technologies**
- ❖ Amplified **regional learning** through:
  - ACEF
  - Joint knowledge sharing events
  - Joint implementation of pilot projects
- ❖ Accelerated **energy transition** at scale across Asia and the Pacific







## Looking Ahead

- ❖ Strengthen the partnership between ADB and KEA through a renewed MOU
- ❖ Co-develop regional technical support and pilot investments
- ❖ Scale-up innovations deploying emerging clean energy technologies
- ❖ Continue shaping the region's clean and resilient energy future together

Thank You !!!