The views expressed in this presentation are the views of the author/s and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy of the data included in this presentation and accepts no responsibility for any consequence of their use. The countries listed in this presentation do not imply any view on ADB's part as to sovereignty or independent status or necessarily conform to ADB's terminology.



ADB's Energy Policy & Portfolio 24 February 2023

Steve Peters, Senior Energy Specialist (Waste to Energy) Sustainable Development and Climate Department (SDCC)





Outline

- Key Energy Challenges in Asia and the Pacific
- Opportunities and Changing Energy Landscape
- ADB's Energy Portfolio
- ADB's 2021 Energy Policy
- Examples of ADB's Clean Energy Projects
- Indicative Clean Energy Projects (2021-2023)
- ACEF 2023



ADB

Key Energy Challenges in Asia and the Pacific



- Roughly 350 million people remain without adequate supply, and 155 million people still have no access to electricity
- About **1.6 billion people** without access to clean cooking
- IEA scenarios suggest doubling of electricity demand in the region by 2040
- Cumulative renewable energy investments of \$6.0 trillion by 2040
- Cumulative electricity grid investments of \$6.4 trillion by 2040

- About 50% of global CO2 emissions from fossil fuels
- Approximately 25% of CO2 emissions from coal power generation



ADB

Opportunities and Changing Energy Landscape





Global

Commitments



ADB's Commitment

Profound changes in Asia and the Pacific:

Energy

Landscape

- Falling cost of renewable energy vs. conventional energy
- Emerging new and innovative low-carbon energy technologies

Global commitments to universal access and climate action:

- Sustainable Development Goal 7: Universal Energy Access by 2030
- Paris Agreement: Nationally Determined Contributions (NDCs)

ADB is the Asia and the Pacific Climate Bank:

- \$100 billion of cumulative climate finance by 2030 from our own resources
- At least 75% of our operations support climate action for the period 2019 to 2030





Energy Sector Portfolio, 2011–2021

(annual average share)







BUSINES

<u>OPPORTUNITIES</u>

Energy Sector Portfolio, 2012–2021

(by department)



Central and West Asia East Asia Pacific



Energy Sector Portfolio, 2021

About \$1.7 billion total energy sector lending approved across 19 energy projects

Approximately **\$693 million** in climate finance were approved in the energy sector

- \$659 million climate mitigation (clean energy projects),
- **\$ 34 million** climate adaptation
- \$317 million in energy efficiency,
- **\$376 million** in renewable energy

17 projects addressed climate change and disaster resilience

BUSINESS OPPORTUNITIES



ADB's Energy Policy

- Approved on 20 October 2021
- Prioritizes energy efficiency, renewable energy, energy storage, decarbonization and electricity transmission and distribution expansion and upgrade
- Supports energy policy reforms, long-term planning, regional cooperation and greater private sector participation
- Promotes use of smart, digital, innovative and best available technologies
- Focuses on delivering an inclusive, resilient and just transition
- Formally closes the door for coal financing but leaves door open for natural gas subject to strict criteria
- Selective on financing storage hydropower plants
- No financing of nuclear energy





ADB's Energy Policy 2021 - Principles







ADB's Energy Policy 2021 – Selected Principles and Actions







Principle 1 Securing Energy for a

Prosperous and Inclusive Asia

and the Pacific

Principle 2

Building a Sustainable and Resilient Energy Future **Principle 3**

Supporting Institutions, Private Sector Participation, and Good Governance

- Supporting Institutions
- Tariff and Subsidy Reform
- Private Sector Participation
- Greater Impact through Sector-Wide Long-Term Planning
- Partnering to Shape Energy Reform Policies



- Supporting Electrification Programs
 - Promoting Cleaner Cooking, Heating and Cooling
- Improving Energy Efficiency across Supply and Consumption Chains
- Promoting Social Inclusion, Gender Equality Partnerships

- Accelerating Renewable Energy
- Role of Specific Energy Sources in Pursuing Strategic Decarbonization
- Increasing Resilience and Efficiency of Electricity Infrastructure
- Gender Equality Partnerships Ensuring a Just Transition

ADB

BUSINESS

OPPORTUNITIES

Examples of ADB's Approved Clean Energy Projects

Financial Intermediation Loan for Rooftop Solar in Sri Lanka:

\$50 million credit line, through the government, to multiple local banks for financing of rooftop solar PV systems

Concessional Loan for Energy Efficiency in India:

 \$200 million loan, combined with \$13 million grant, to establish an energy efficiency revolving fund to finance LED streetlights, LED bulbs, ceiling fans, electric vehicles and charging stations through public Super-ESCO.

Private Sector Loan for Wind Power in Thailand:

 First project to integrate utility-scale wind power generation with battery energy storage in the country. ADB provided long-term financing of \$240 million

Sovereign Project Loan for Battery Storage in Mongolia:

 \$100 million loan for the first Utility-Scale Energy Storage Project to support decarbonization and help increase renewable energy use by providing a large energy reserve, load shifting capacity, and emergency backup

Grant Support for Renewable Energy in Kiribati:

 \$8 million grant for the South Tarawa Renewable Energy Project – ADB's first project in Kiribati's energy sector – to install climate-resilient solar power capacity on a water reserve ASEAN Catalytic Green Financing Facility (ACGF)

- An initiative of the ASEAN Infrastructure Fund to accelerate green infrastructure investments in Southeast Asia
- Provides ASEAN governments with technical assistance and access to over \$1 billion in loans from cofinancing partners.
- Supports governments to identify and prepare commercially viable green infrastructure projects
- Supported the preparation of the 100 MW Cambodia National Solar Park Project



Energy Transition Mechanism (ETM)

Scalable, collaborative initiative developed in partnership with DMCs that will leverage a market-based approach to accelerate a just transition from fossil fuels to clean energy

Public and private investments will finance country-specific ETM funds to retire coal power assets on an earlier schedule than if they remained with their current owners



1. Accelerate climate action

Countries participating in ETM will be able to reach more ambitious emissions targets than under their current commitments



2. Reduce energy costs

Speeding up the retirement of coal-fired electricity will increase the demand for clean energy by 2-3 times, lowering overall energy costs in the long run.



3. Drive investment

ETM will help unlock or "crowd in" investment in cost-effective renewable generation and support and enable clean technologies, such as smart grids, hydrogen, and electric vehicles.



4. Provide a scalable model

ETM has the potential to be scaled up to other parts of Asia and the Pacific, as well as Latin America and Africa, which could drive significant reductions in global emissions.



Indicative Clean Energy Projects for 2021–2023 (1 of 2)

INO: Geothermal Power Expansion Project (Phase 2) https://www.adb.org/projects/50330-001/main

INO: Sustainable Transition Project - DAMRI E-buses

KIR: South Tarawa Renewable Energy Project (Phase 2)

MON: Supporting Renewable Energy Development

MON: MFF Smart grid system development

MON: MFF Smart grid system development (Tranche 1)

FSM: Renewable Energy Development Project, Phase 2

SAM: Alaoa Multi-Purpose Dam Project

TON: Nukualofa Electricity Network Project (Solar Plus Project)

TUV: Increasing Access to Renewable Energy Project - Phase 2





Indicative Clean Energy Projects for 2021–2023 (2 of 2)

BAN: Renewable Energy Project

CAM: Energy Efficiency Sector Development Program

BAN: Renewable Energy Development and Efficiency Improvement Project

BHU: Renewable Energy Project

BHU: Hydropower Rehabilitation Project

PRC: Low Carbon Transformation in Urban Areas

PRC: Shanxi Low-carbon and Beautiful Village Development

IND: Scaling Up Demand Side Energy Efficiency Sector Project-Additional Financing





ASIA CLEAN ENERGY FORUM 2023 Navigating toward a Carbon-Neutral Future through Clean Energy Solutions

13-16 June 2023



INTERNAL. This information is accessible to ADB Management and staff. It may be shared outside ADB with appropriate permission.

ADB Navigating Toward a Carbon-Neutral Future Through Clean Energy Solutions

Thematic Track Sessions

- 1. Gender Equality in Clean Energy Development
- 2. Private Sector for Clean and Efficient Energy Innovations
- 3. Energy Efficiency for the Energy Transition
- 4. Innovative and Resilient Renewable Energy

Other Sessions

- Opening Plenary: Vision for the Role of Clean Energy in Driving a Carbon-Neutral Asia and the Pacific
- Closing Plenary: Solidarity and Commitment Toward a Carbon-Neutral Asia and the Pacific with Clean Energy
- Deep Dive Workshops
- Spotlight & Regional Sessions
- Side Events

Partner Organizations

- KEA (co-organizer)
- USAID (co-organizer)
- ADB Institute
- Sustainable Energy for All
- Korea Ministry of Trade, Industry and Energy
- Others

INTERIVAL. This information is accessible to ADB Management and staff, it may be shared outside ADB with appropriate permission.



Thank you!

Steve Peters

Senior Energy Specialist (Waste to Energy), SDSC-ENE Sustainable Development and Climate Change Department

dmorgado@adb.org

INTERNAL. This information is accessible to ADB Management and staff. It may be shared outside ADB with appropriate permission.