

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.



Energy Sector Group

14 April 2021



Kee-Yung Nam, Principal Energy Economist
Sector Advisory Service Cluster–Energy Sector Group





Energy Sector Operations Guiding Principles

Increased deployment of renewable energy and energy efficiency

Integration of advanced technologies, innovative business models, and financing instruments

Creating and enabling regulatory frameworks for effective market and sector development

GLOBAL CLIMATE GOALS

SDG 7 (Universal Energy Access),
Nationally Determined
Contributions

SDG 7

Universal Energy Access

ADB STRATEGY 2030

(7 Operational Priorities)





Energy Sector Contributions to S2030

7 Operational Priorities

Increased access to clean energy to meet basic needs, income generation through RE employment

OP 1: Addressing remaining poverty and reducing inequalities

Job creation and skills development for women in RE; productive use of women's time for income generation

OP2: Accelerating progress in gender equality

Climate change mitigation and adaptation, air quality improvement, energy water nexus

OP3: Tackling climate change, building disaster resilience

Supporting energy smart buildings, electric vehicles, microgrids, waste-to-energy, and demand-side energy efficiency

OP4: Making cities more livable

Distributed renewable energy applications in irrigation and agriculture (e.g. solar pumping), biomass-to-energy

OP5: Promoting rural development and food security

Promoting energy sector reforms and enabling clean energy development

OP 6: Strengthening governance and institutional capacity

Promoting energy connectivity, cross-border clean energy trade, and knowledge exchange

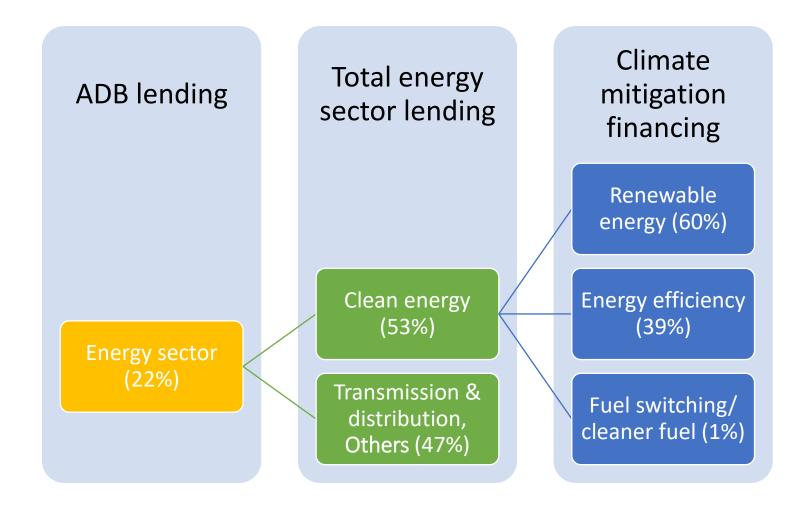
OP 7: Fostering regional cooperation and integration





Energy Sector Lending, 2011–2020

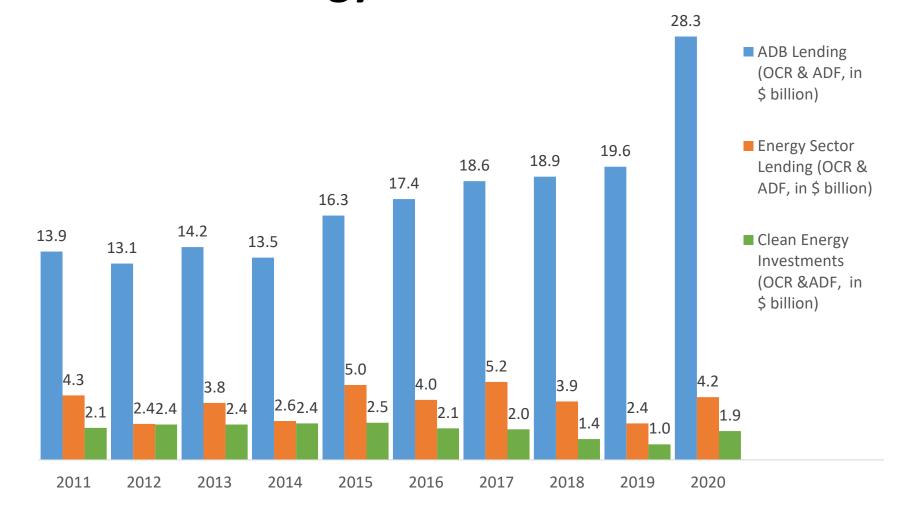
(annual average share)







ADB Lending, Energy Sector Lending and Clean Energy Investments







Energy Sector Lending by Sub-Region in 2020

(\$ millions)

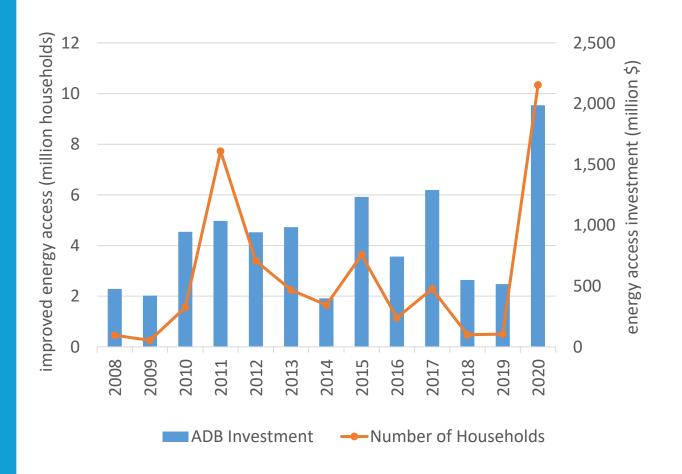
	Central and West Asia	East Asia	Pacific	South Asia	Southeast Asia	Private Sector	TOTAL
Climate Finance	174	264	6	839	443	272	1,997
- Mitigation	161	264	6	794	424	269	1,917
- Adaptation	13	0	0	44	19	4	80
T & D, Others	277	186	7	838	756	119	2,184
Total	451	450	13	1,676	1,199	392	4,181





Outcomes from Operations:

Progress in Energy Access



ADB has invested a total of \$2.0 billion in energy access in 2020, and \$10.3 billion cumulatively from 2008 to 2020

It provided energy access (electricity, clean cooking) to **10.3 million households** in 2020, and 35.6 million households cumulatively from 2008 to 2020

Transmission and distribution projects in Afghanistan, Bangladesh, India, Indonesia, Myanmar and Nepal contributed to this upsurge





Outcomes from Operations:

Climate Impact of Energy Projects

Estimating greenhouse gas emission reduction

• 6.9 million tons of CO₂ equivalent per year—emission reduction (2020)

Assessing climate change impact of projects

- 3.4 GW additional RE capacity installed (2020)
- 8.3 TWh/year RE electricity generation (2019)
- 1.1 TWh/year electricity savings (2019)





ADB Energy Sector Knowledge Work

Handbooks, Cases, Guide Notes

- Microgrids
- Smart Grids
- Waste-to-Energy
- Energy Storage
- Hydrogen
- Distributed Renewable Energy Solutions
- Energy Sector Perspective for the Reopening of the Economy (COVID-19)

Technical Notes, Op-ed, Blogs

- No Place for "Dirty Energy" in ADB's Climate Vision
- The Pandemic May Break Value Chains, But Solar Energy Can Still Shine
- Covid-19 is an Opportunity to Retool Health Sector's Energy Supply
- It's Clean, Powerful And Available: Are You Ready For Hydrogen Energy?
- Artificial Intelligence and Human Education, Needed to Advance Energy Efficiency
- Managing Infectious Medical Waste During COVID-19 Pandemic

Workshops, Forum, Collaborations

- Asia Clean Energy Forum
- Cooling, Heating, and Cooking Technologies and Business Models
- Green and Low-Carbon Hydrogen Energy
- Carbon Capture, Utilization, and Storage Technologies
- Collaborations with SEforALL and IEA





COVID-19 Related Activities

Energy specialists mobilized across different departments to support the review of COVID-19 projects

A technical assistance was processed to Build Disease-Resilient and Energy Efficient Centralized Air-Conditioning Systems

A technical note on Managing Infectious Medical Waste during COVID-19 Pandemic

A guidance note on the energy sector perspective for the reopening of the economy

Blogs on the interface of COVID-19 and energy:

- Covid-19 is an Opportunity to Retool Health Sector's Energy Supply
- The Pandemic may Break Value Chains but Solar Power can Still Shine





Projected Energy Sector Lending in 2021–2022

In 2020, energy sector lending is about \$4.2 billion

- 48% clean energy
- 52% transmission & distribution, others
- challenges due to COVID-19—resource allocation priorities of developing member countries, field work constraints

In 2021–2022, projected average energy sector lending is \$5 billion per year

clean energy representing about 40–50% of the lending





Energy Sector: The Way Forward

Increase clean energy investments

- Help develop and demonstrate viability of new renewables beyond solar PV and onshore wind in ADB DMCs
- Develop projects with other sectors to reap scale and scope economies in energy efficiency

Support for more flexible, resilient and smarter energy systems

 Support the deployment of ICT, digital applications, and energy storage in the T&D subsector

Strengthen multi-sectoral approach







Thank you!

KEE-YUNG NAM
Principal Energy Economist, SDSC-ENE
kynam@adb.org

