



Energy Sector Group

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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 COMMITMENTS TO UNIVERSAL ACCESS AND CLIMATE ACTION

SDG 7: Universal Energy Access by 2030
Paris Agreement: Nationally Determined
Contributions (NDCs)

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

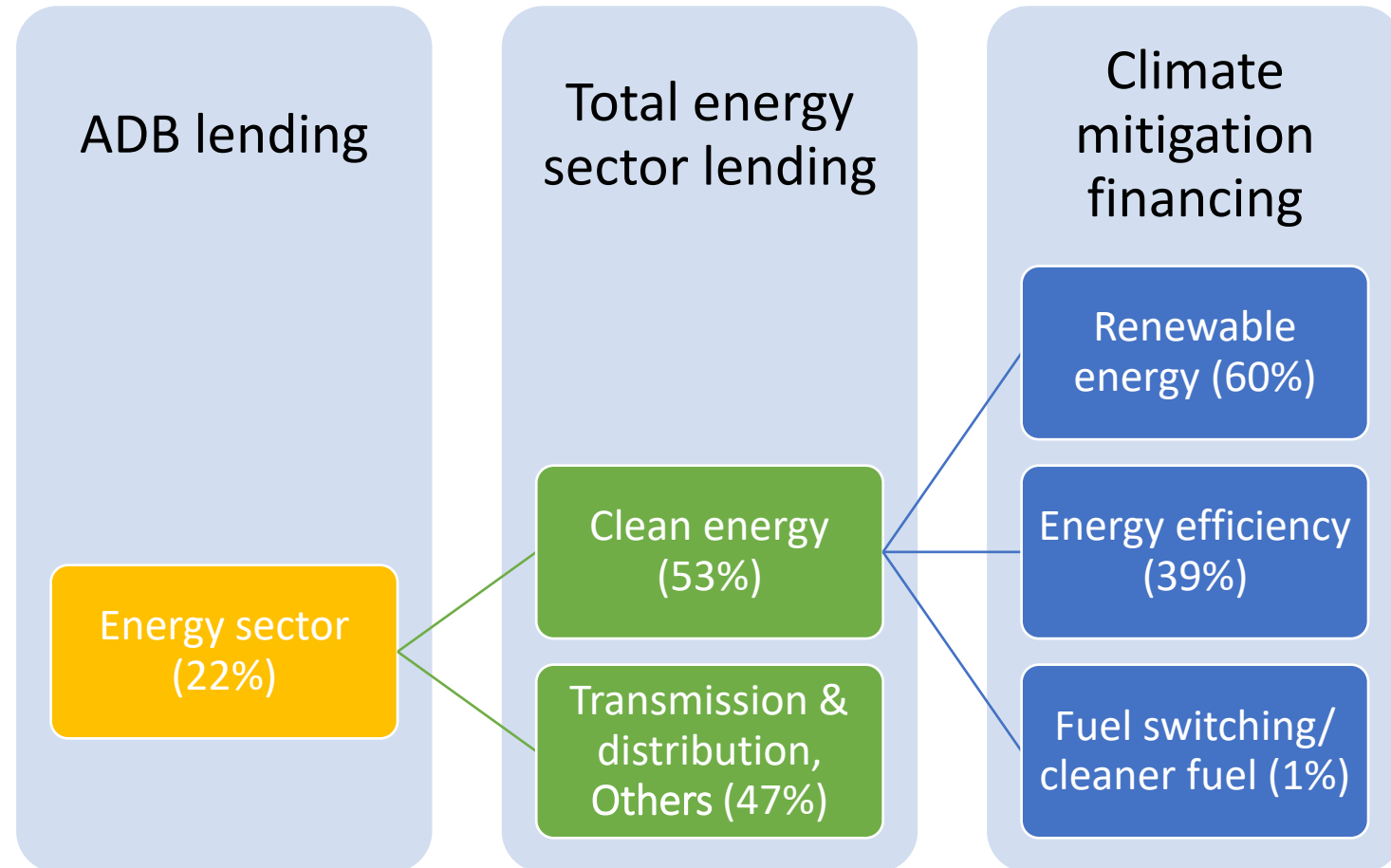
Promoting energy sector reforms and enabling clean energy development

OP 6: Strengthening governance and institutional capacity

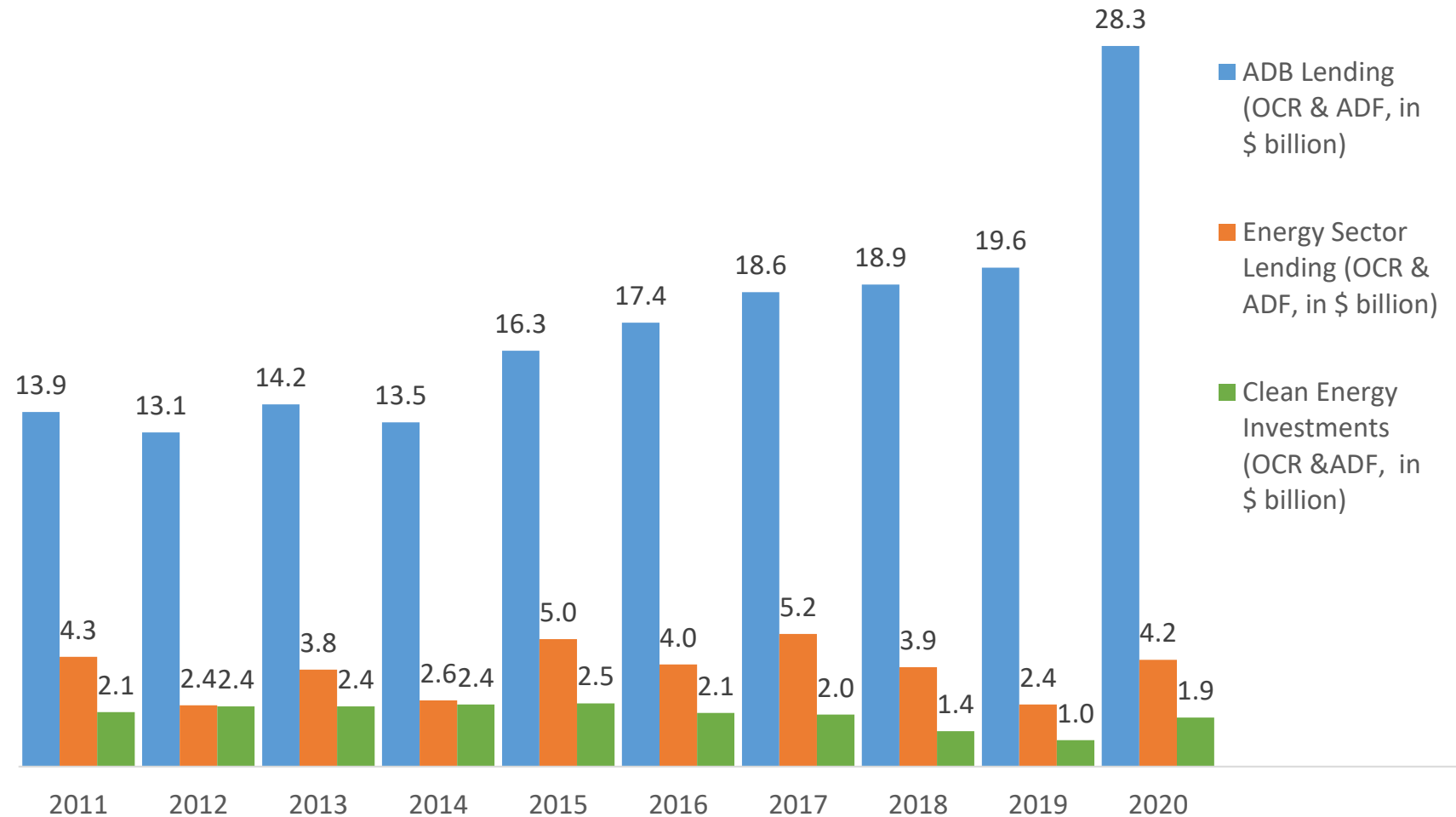
Promoting energy connectivity, cross-border clean energy trade, and knowledge exchange

OP 7: Fostering regional cooperation and integration

Energy Sector Lending, 2011–2020 (annual average share)



ADB Lending, Energy Sector Lending and Clean Energy Investments

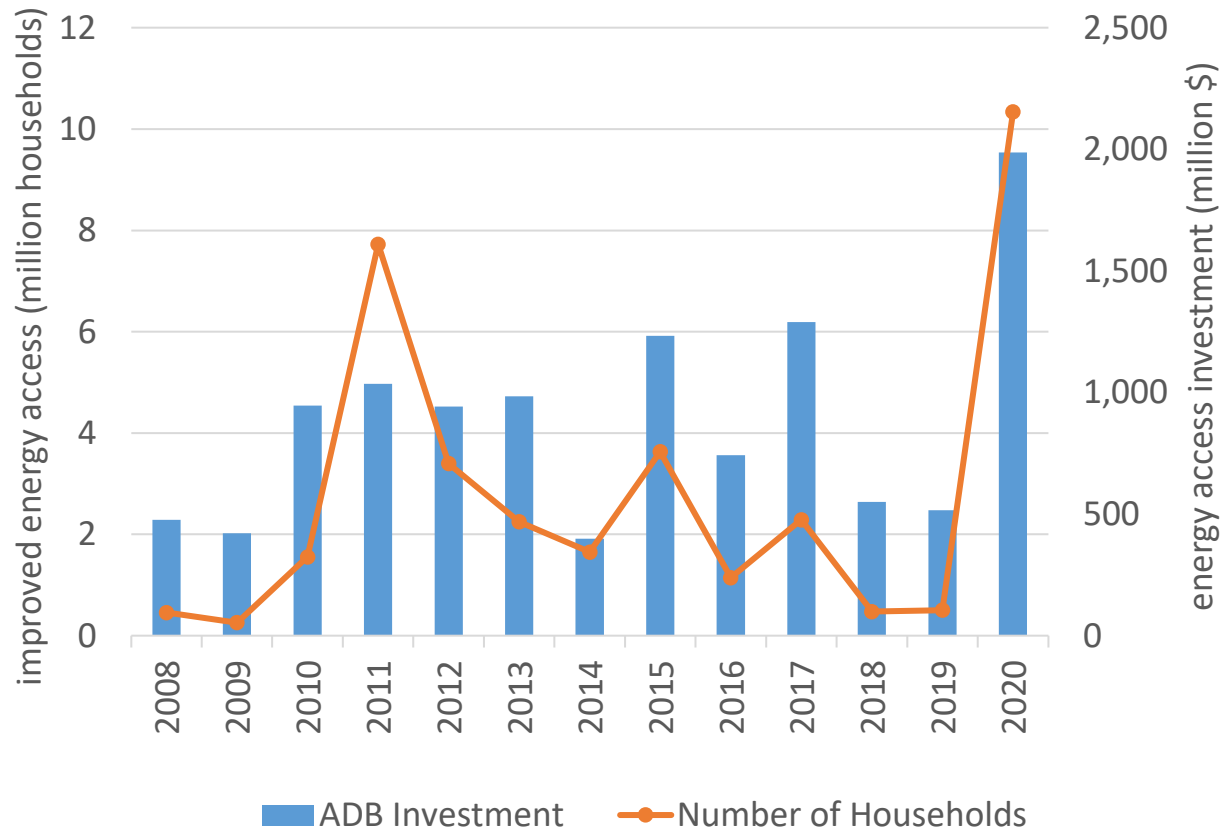


Energy Sector Lending by Sub-Region in 2020

(\$ 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

ADB investments 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

Estimated 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

- Carbon Capture, Utilization and Storage
- Clean Cooking
- Distributed Renewable Energy Solutions
- Energy Storage
- Hydrogen
- Microgrids
- Smart Grids
- Waste-to-Energy
- Energy Sector Perspective for the Reopening of the Economy (COVID-19)
- Financing Clean Energy in Developing Asia

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

Innovative Technologies for Clean Energy

EMERGING TECHNOLOGIES

- smart grids
- energy storage
- carbon capture, utilization, and storage
- green and low-carbon hydrogen
- smart technologies and digitalization

KIRIBATI: South Tarawa Renewable Energy Project (\$8 M grant)

THAILAND: 10-MW wind power with an integrated 1.88 MWh battery energy storage system (\$7.2 M equivalent loan)

MONGOLIA: First Utility Scale Energy Storage Project (\$100 M loan)

INDIA: Bengaluru Smart Energy Efficient Power Distribution Project (\$190 M loan)

UZBEKISTAN: Navoi Solar Power Project (\$13 M loan)

Projected Energy Sector Lending in 2021–2022

In 2020, energy sector lending was 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

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

More information available at <https://www.adb.org/projects>

AFG: Renewable Energy Development (Solar and Wind) Project

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

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

More information available at <https://www.adb.org/projects> Also search for Country Operations Business Plans, e.g.: <https://www.adb.org/documents/cambodia-country-operations-business-plan-2021-2023>

INO: Geothermal Power Expansion Project (formerly Geothermal Power Generation Project (Phase 2))

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

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

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 economies of scale and expand scope of energy efficiency investments (“energy +”)

Support for more flexible, resilient and smarter energy systems

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

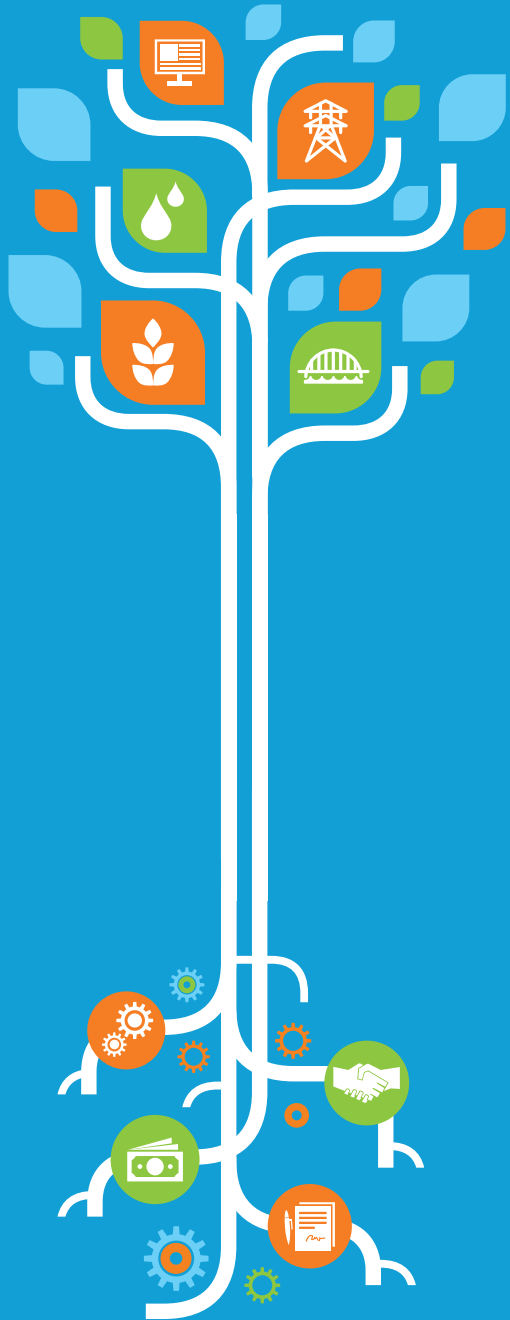
Strengthen multi-sectoral approach (Strategy 2030)

2021 Energy Policy: Guiding Principles

1. Securing Energy for a Prosperous and Inclusive Asia
2. Building a Sustainable and Resilient Energy Future
3. Engaging with Institutions and Framing Policy Reforms
4. Promoting Regional Cooperation to Enhance Energy Security
5. Cross Sectoral Operations to Maximize Development Impact

Other Key Points on ADB Operations and Procurement

- ADB is a development bank, but it is still a bank and its main business is lending money
- For almost all ADB investment operations (loans), the borrowers are responsible for procurement of goods and services – ADB reviews and provides “no objection”
- ADB directly procures consulting services under technical assistance programs
- Pilot projects are defined as “high risk” and are subject to competitive procurement guidelines
- Innovative technologies should be requested by ADB clients, rather than ADB pushing the technologies



Thank you!

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