

# ADB's Draft Energy Policy: Supporting Low Carbon Transition in Asia and the Pacific

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June 2021

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## **Background and Rationale of the Policy Update**

# **Energy landscape of the developing member countries has**profoundly changed

- Falling costs of renewable energy
- ii. New and innovative energy technologies
- iii. Novel business models
- iv. Evolving and more complex regulatory framework

### **ADB's global commitments**

- i. Sustainable Development Goals (SDGs)
- ii. Paris Agreement on climate change

# ADB's updated Vision and Strategy 2030 has set new operational priorities

- . Addressing the poverty that remains and reducing inequalities
- ii. Accelerating progress in gender equality
- iii. Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability
- iv. Making cities more livable
- v. Promoting rural development and food security
- vi. Strengthening governance and institutional capacity
- vii. Fostering regional cooperation and integration

Sector-Wide evaluation of the 2009 Energy Policy

The Draft for 2021 Energy Policy



# II. Guiding Principles of the New Energy Policy



# Securing Energy for a Prosperous and Inclusive Asia and the Pacific

## **Guiding Principle 1**

- ADB will accelerate efforts to bring affordable, reliable, sustainable and modern energy to all, in order to eradicate poverty and to promote inclusive economic growth
- ➤ ADB will enable use of energy in productive activities and creates associated employment and business opportunities in rural areas.

#### As a response to

# Operational priorities of ADB Strategy 2030

- OP1: poverty reduction
- OP2: gender equality
- OP4: liveable cites
- OP5: rural development

#### Key sustainable development targets

SDG 7.1 energy access

- Last-mile electrification
- Off-grid and distributed systems
- Reliability of electricity networks
- Clean energy for cooking becoming priority
- Urban poor



## **Towards a Sustainable and Resilient Energy Future**

## **Guiding Principle 2**

ADB will tackle climate change, enhance environmental sustainability, and build climate and disaster resilience through

- ✓ improving energy efficiency as a basis for energy transformation.
- ✓ increasing the use of renewable energy with storage;
- ✓ pursuing planned phase-out of coal in the region;
- ✓ promoting innovative energy technologies;
- ✓ supporting resilience planning, assessment and investments.

#### As a response to

## Operational priorities of ADB Strategy 2030

OP3: climate change

OP4: liveable cities

OP5: rural development

### Key sustainable development targets

- SDG 7.2 renewable energy
- SDG 7.3 energy efficiency

- Need to align with the Paris Agreement
- Falling costs of renewable electricity
- New and innovative technologies and business models



## **Engaging with Institutions and Framing Policies**

## **Guiding Principle 3**

- ✓ ADB will support operational efficiency, financial sustainability, and good governance of energy sector institutions and companies.
- ✓ ADB will also assist in creating the policy and regulatory frameworks needed to manage the energy transition and climate actions.
- ✓ Support DMC's to develop capacity to join supply chain in renewable energy industries

#### As a response to

# Operational priorities of ADB Strategy 2030

OP6: Governance and institutional development

- Policies and regulations aligned with Paris Agreement and NDCs
- New types of regulatory needs
- Need own manufacturing capacity and expertise to develop renewable energy
- Heightening role of the private sector through market driven forces



## **Promoting Regional Cooperation to Enhance Energy Security**

## **Guiding Principle 4**

- ADB will promote regional energy cooperation and the integration of energy systems, in order to strengthen energy security and increase cross-border access to cleaner energy sources.
- ADB also pursues regional knowledge sharing and financial collaboration.

#### As a response to:

## Operational priorities of ADB Strategy 2030

OP7: regional cooperation and integration

- Prospects for gigawatts-scale cross-border renewable energy development
- Advancements of high voltage transmission technologies enabling higher transmission capacities and lengths
- New initiatives in energy cooperation to increase renewable energy (e.g. One Sun, One World, One Grid and Global energy Interconnection)



## **Cross-sectoral Operations to Maximize Development Impact**

### **Guiding Principle 5**

- ➤ ADB will continue to combine finance, knowledge, partnerships, and its country-focused approach to deliver integrated and cross-sectoral solutions that provide comprehensive and magnified development impacts from its energy sector activities.
- Country-focused and differentiated approach, promoting innovative technology and providing integrated solutions

#### As a response to:

#### **ADB Strategy 2030**

ADB will be stronger, better, and faster in its delivery to maximize the development impacts of its operational agenda.

- Need to manage programs consisting of small and widely dispersed projects
- Demand for cross-sectoral and crossthematic interventions (food, water, transport, health nexus)
- Need to accrue and disseminate new knowledge and best practices efficiently



# III. Highlights of Policy Updates and Changes for further Consultation



## **Encouraging and Supporting Low-Carbon Transition**

# on SUPPLY

Increase the share of renewable energy in power generation



Support structural shift to higher share of electricity



Convert, balance and store with new energy carriers and technologies

Hydrogen (blue, turquoise and

- Bioenergy
- Geothermal
- Hydropower
- Ocean energy
- Solar
- Wind

- Motive power
- Electronics, digitalization and smart systems
- Direct heating
- Heat pumps
- Induction, electric arc

- green)
- CCS/CCUS
- Power-to-X
- Advanced biofuels
- BESS, pumped hydro
- Heat storage

#### **Efficient and resilient TRANSMISSION AND DISTRIBUTION**



In industry, support fuel shift away from coal

Minerals and metals

Chemicals

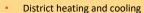
Pulp and paper

Refining

Food Assembly



In residential and commercial demand, support



- Cold storage, cold chain
- Clean cooking
- Low-energy buildings
- Heat storage
- Distributed energy
- Smart control and IoT



In transportation, support transformation in

- Two-wheelers
- Light vehicles
- Trucks
- Public transport systems
- Rail
- Shipping
- Aviation







## **Long-Term Planning for Low-Carbon Transition**

- ✓ ADB will support DMCs to develop long-term roadmap and planning for low-carbon transition in the energy sector including 3 milestones
  - Decreasing the carbon intensity
  - Peaking of carbon emissions
  - Achieving carbon neutrality
- ✓ Energy sector roadmaps will dovetail into the development of national longterm strategies which establish sustainable, equitable, low-GHG and climate-resilient development pathways
- ✓ The roadmap will deploy appropriate technologies:
  - Low-carbon technologies (energy efficiency, renewable energy)
  - zero carbon technologies (carbon capture, utilization and storage combined with fossil fuels)
  - negative emission technologies (sustainable bioenergy with carbon capture and storage)
- ✓ ADB will pursue the development of competition and private sector participation through market-based mechanisms



## **Fossil Fuels**

- ✓ ADB will not finance any coal mining, oil and gas field exploration and drilling activities
- ✓ ADB will not finance any new coal-fired capacity for power and heat generation.
- ✓ ADB will support DMCs to develop strategic approaches and policies for a Just Transition that addresses the socioeconomic impacts of transitioning away from fossil fuels
- ✓ ADB may finance natural gas pipeline, gas-to-power, industrial and household use of gas projects subject to the following conditions:
  - Meeting basic energy access requirement
  - Consistent with country's long-term low-carbon transition plan, AND
  - Contribute to lower CO<sub>2</sub> emissions compared to grid emission factor, AND
  - Use high-efficiency and best available technologies AND
  - Does not (indirectly) support activities that are not Paris aligned.
- ✓ Detailed guidance note will be issued to staff in processing natural gas projects



## Natural Gas Can Support Low-carbon Transitions

- ✓ Natural gas can be used where it is consistent with a country's Paris-aligned long-term low-GHG emissions transition plan in particular, and the MDB Paris Alignment framework
- ✓ CO2 reduction and air quality improvement because of lower carbon contents compared to other fossil fuels such as coal (-50% CO2 emissions) and minimal SOX and particulate matter;
- ✓ Providing comparatively clean energy access for house heating/cooking using gas instead of coal;
- ✓ Co-generation/tri-generation (power generation, heating and cooling) with high efficiency up to 90%;
- ✓ Flexible power supply, balancing intermittent renewable energy power supply;
- ✓ Need to consider long term impacts to avoid stranded assets and prepare decarbonization with new technologies such as carbon capture and storage and hydrogen



## **Large Hydropower**

- ✓ ADB will selectively support large hydroelectric power plants (including pump storage) with seasonal storage reservoirs with multipurpose benefits subject to:
  - Positive contribution to low-carbon transition with life cycle greenhouse gas emission analysis
  - Incorporation of climate resilient designs
  - Robust environmental mitigation strategies; and
  - Proper resettlement and economic rehabilitation of the affected people
- ✓ Detailed guidance note will be issued to staff in processing large hydropower projects



## **Waste-to-Energy**

- ✓ ADB will support waste-to-energy investments as they provide an opportunity for integrated cross-sectoral projects enhancing the livability and health in cities and rural areas, and prevents environmental hazards caused by landfills
- ✓ In such waste-to-energy projects, the choice for combustion prudently follows the waste management order to prioritize:
  - Reducing waste generation and waste to landfills, whilst supporting ICT technologies to extract valuable materials as early as practical in the waste logistics chain;
  - Increased integration with waste re-use and recycling, notably the integration of biological and mechanical treatment and recycling;
  - Using waste to generate energy within the confines of planned eco-industrial parks which integrates the above
- ✓ Detailed guidance note will be issued to staff in processing waste-to-energy projects



## **Other Technologies**

- ✓ ADB may participate in financing projects with hybrid electricity solutions involving fossil fuels together with renewable energy for isolated grids in islands and remote areas
- ✓ ADB will support DMCs to be informed and participate in new technologies such as battery storage, carbon capture, utilization and storage, green hydrogen, and ocean energy
- ✓ ADB will support cross-sectoral technologies (electric vehicles, solar pumps for irrigation, renewable energy for clinics/cold chain for vaccines)
- ✓ ADB will continue its policy of not to be involved in financing investments in nuclear energy.





