

Draft Paper for Consultation May 2021

Energy Policy
Supporting Low Carbon Transition in Asia and the Pacific

ABBREVIATIONS AND ACRONYMS

ADB - Asian Development Bank

CO₂ - carbon dioxide

DMC - developing member country

GHG - greenhouse gas

IED . Independent Evaluation Department

LNG - liquified natural gas

NDC . nationally determined contribution

OP - operational priorities of ADB Strategy 2030

PPP - public private partnership
PRC - People's Republic of China

PV - photovoltaic

SDG - Sustainable Development Goal

SOE - state-owned enterprise

NOTES

In this report, "\$" refers to United States dollars.

| Vice-President | Bambang Susantono, Knowledge Management and Sustainable Development |
|----------------------|---|
| Director General | Bruno Carrasco, Sustainable Development and Climate Change Department (SDCC) |
| Chief Sector Officer | Robert Guild, Sector Advisory Services Division, SDCC |
| Team leaders | Yongping Zhai, Chief of Energy Sector Group (SDSC-ENE), SDCC Priyantha Wijayatunga, Director, Energy Division (SAEN), South Asia Department (SARD) and Chair, Energy Committee |
| Team members | Mayank Choudhary, Principal Investment Specialist, Infrastructure Finance Division 1 (PSIF1), Private Sector Operations Department (PSOD) |
| | Shane Clancy, Senior Investment Specialist, Infrastructure Finance Division 2 (PSIF 2), PSOD |
| | Shannon Cowlin, Principal Energy Specialist, Energy Division (EASI), Sustainable Infrastructure Division, East Asia Department (EARD) |
| | Virender Kumar Duggal, Principal Climate Change Specialist, Climate Change and Disaster Risk Management Division, SDCC |
| | Christian Ellermann, Senior Climate Change Specialist, Climate Change and Disaster Risk Management Division, SDCC Michael Folsom, Counsel, Office of the General Counsel (OGC) |
| | Len George, Principal Energy Specialist, Energy Division, Pacific Department |
| | Sohail Hasnie, Principal Energy Specialist, Energy Division (CWEN), Central and West Asia Department (CWRD) |
| | Takafumi Kadono, Principal Planning and Policy Economist, Operations Planning and Coordination Division, Strategy, Planning and Partnerships Department |
| | Haroun Ahmed Khawaja, Principal Investment Specialist, PSIF1, PSOD |
| | Levan Mtchedlishvili, Principal Energy Specialist, CWEN, CWRD Pradeep Perera, Principal Energy Specialist, SAEN, SARD Tornieri, Francesco, Principal Social Development Specialist (Gender and Development) |
| | Aysha Qadir, Principal Counsel, OGC Daniele Quaggiotto, Counsel, OGC |
| | Atsumasa Sakai, Senior Energy Specialist, EASI, EARD Daniela Schmidt, Energy Specialist, Energy Division (SEEN), Southeast Asia Department (SERD) |
| | Pradeep Tharakan, Principal Energy Specialist, SEEN, SERD Zonibel Woods, Senior Social Development Specialist (Gender and Development), Gender Equity Thematic Group, SDCC Yuichiro Yoi, Principal Investment Specialist, PSIF2, PSOD |
| Peer Reviewers: | Members of Energy Committee |

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgements as to the legal or other status of any territory or area.

A. BACKGROUND AND INTRODUCTION

- 1. Over the past few decades, the Asia and Pacific region has experienced unprecedented economic progress, modernizing its societies and improving the living conditions of its people. This process has been underpinned by economic reforms, international collaboration, urbanization, and lower labor and production costs. Expanded energy access and increased security of energy supply have contributed to countries' economic development and improved quality of life. The economic transformation has not, however, been equal across countries and between people, and has had harmful climate and environmental consequences.
- 2. In response to the various challenges faced by the region, in 2018, the Asian Development Bank (ADB) launched its Strategy 2030 to address, in its operations, the continuing issues of poverty and vulnerabilities, inequality, and the growing environmental pressures. Strategy 2030 also reflects ADB's commitment to aligning with its global commitments to the Sustainable Development Goals (SDGs) and the related Financing for Development agenda, and the Paris Agreement on climate change (Paris Agreement).
- 3. Strategy 2030 expands ADB's vision to achieve a prosperous, inclusive, resilient, and sustainable Asia and the Pacific. To achieve Strategy 2030's vision, ADB will focus on seven operational priority areas, namely: (i) addressing remaining poverty 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, and (vii) fostering regional cooperation and integration.
- 4. In aligning its operations with Strategy 2030, ADB will expand its interventions in social sectors, such as education, health, and social protection. In addition, at least 75% of the number of ADB's committed operations (on a 3-year rolling average, including sovereign and nonsovereign operations) will promote gender equality by 2030. As ADB's developing member countries (DMCs) pursue more livable and sustainable cities and further rural development, they will meet complex and cross-sectoral development challenges in education, health, transport, water, and agriculture. To contribute to meeting these challenges, ADB's energy sector activities must follow from an understanding of how energy systems interact with broader society and environment.
- 5. In 2019, global carbon dioxide (CO2) emissions from the combustion of fossil fuels (coal, oil, and natural gas) amounted to 36.4 gigatons, representing 80% of the total anthropogenic carbon emissions and 68% of the total of greenhouse gas (GHG) emissions (as measured by their impact on global warming, through their global warming potential), which also includes methane, nitrous oxide, and fluorinated gases, stemming from all types of human activity—agriculture, industrial processes, land use and land use change, and energy.^{2,3} Consequently, a vigorous intervention in the energy sector represents a direct and

3

¹ ADB. 2018. Strategy 2030. Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific. Manila.

² IIASA (2020). Global Carbon Budget 2020. Earth System Science Data. 12. 3269-3340. 10.5194/essd-12-3269-2020.

³ OurWorldinData. https://ourworldindata.org/greenhouse-gas-emissions