

Energy Sector Strategy: Sustainable Energy for Tomorrow

Draft for Consultation

Table of Contents

Background and Acknowledgements	ii
Abbreviations	iii
Introduction	1
The Global Energy Landscape	
Issues and Challenges in Asia	4
Lessons Learned	
Objective of the Energy Sector Strategy	9
Guiding Principles	
Implementation	
Sectoral Approach	13
Cross-Cutting Issues	17
Results Monitoring Framework	
Annex 1: Results Monitoring Framework	

Background and Acknowledgements

On June 15, 2017, the Board of Directors of the Asian Infrastructure Investment Bank (AIIB) recorded its support for "Energy Sector Strategy: Sustainable Energy for Asia" (Strategy). The Strategy was developed through an iterative, consultative process, including two rounds of public consultations. AIIB wishes to thank all the parties who provided comments for their valuable contributions.

On April 11, 2018, the Board of Directors approved revisions to the Results Monitoring Framework (Annex 1), which replaced the preliminary Framework in the Strategy.

On _____, 2022, the Board of Directors approved additional updates to the Strategy. As in the case of the 2017 Strategy, these updates were developed through an interactive consultative process, including one round of public consultations.

[TO BE UPDATED UPON FINAL APPROVAL]

Abbreviations

CO_2	carbon dioxide
ESF	Environmental and Social Framework
GDP	gross domestic product
GHG	greenhouse gas
GW	gigawatt of electric output
GWh	gigawatt hour
IEA	International Energy Agency
LTS	Long-term low greenhouse gas emission development strategies
MDB	multilateral development bank
Mtoe	million tons of oil equivalent
MW	megawatt
MW	megawatt of electric output
MWh	megawatt hour
NDCs	Nationally Determined Contributions
OECD	Organisation for Economic Co-operation and Development
PPP	public-private partnership
R&D	research and development
SDG 7	Sustainable Development Goal 7 – Affordable and Clean Energy
T&D	transmission and distribution
UN	United Nations
UNSD	United Nations Statistics Division
USD	United States Dollar
WHO	World Health Organization

Energy Sector Strategy:

Sustainable Energy for Tomorrow

Energy is central to nearly every major challenge and opportunity the world faces today. Be it for jobs, security, climate change, food production or increasing incomes, access to energy for all is essential. Sustainable energy is opportunity – it transforms lives, economies and the planet.

Sustainable Development Goal 7 – Affordable and Clean Energy

Introduction

- 1. Energy services are essential to economic activity, social development and quality of life. They fuel the economy and facilitate the operation of factories and businesses. They are essential to deliver goods and services and to meet people's mobility needs. Finally, they contribute to social development and wellbeing, increase gender equality, and are essential to lifting vulnerable people out of poverty. As noted by the United Nations (UN) Secretary-General: "The decisions we take today on how we produce, consume and distribute energy will profoundly influence our ability to eradicate poverty and respond effectively to climate change."¹
- 2. The Asian Infrastructure Investment Bank (AIIB) developed the Energy Sector Strategy (Strategy) to help its members meet societal demands for essential energy services, facilitate their transition to a lower carbon energy system, and to support its vision of a prosperous Asia² based on sustainable development and regional cooperation. The Strategy focuses on *Sustainable Energy for Tomorrow*, and its objective is to provide the framework, principles, and operational modalities to guide AIIB's energy sector engagement, including the development of its project pipeline and subsectoral lines of business.
- 3. The Strategy was first formulated in 2017 with revisions to the Results Monitoring Framework approved in 2018. The 2022 update to the Strategy reflects AIIB's Corporate Strategy (2020), including its mission of *Financing Infrastructure for Tomorrow*, the transitioning environment in the energy sector, and pays particular attention to strengthening its guidance on fossil fuels.
- 4. Recent years have seen elevated climate change commitments and actions from both governments and the private sector. This necessitates increased action, including new restrictions and conditions on fossil fuel investments. The multilateral development banks (MDBs), including AIIB, continue to be at the forefront of addressing climate change and have each individually committed to aligning their operations with the Paris

¹ "Energy for a Sustainable Future," Foreword, The Secretary-General's Advisory Group on Energy and Climate Change (AGECC), Summary Report and Recommendations – 28 April 2010, New York.

² In this document, references to "Asia" and "Region" include the geographical regions and composition classified as Asia and Oceania by the United Nations, and the Russian Federation.

Agreement. Specifically, reflecting its commitment to support the Paris Agreement, AIIB will aim at reaching or surpassing by 2025 a 50 percent share of climate finance in its actual financing approvals. AIIB will also aim to align all of its new financing operations with the goals of the Paris Agreement by July 1, 2023.

5. The Strategy embraces and is informed by the principles underpinning the 2030 Agenda for Sustainable Development, particularly Sustainable Development Goal 7 (SDG 7), and the Paris Agreement (Box 1). It lays the framework for AIIB to support its members to: (i) develop and improve their energy infrastructure; (ii) increase energy access; (iii) facilitate their transition to a less carbon-intensive energy mix; and (iv) meet their evolving goals and commitments under these global initiatives.

Box 1: Global Initiatives

The *2030 Agenda for Sustainable Development* is a set of 17 aspirational "Sustainable Development Goals" with 169 targets, developed under UN auspices and involving 193 UN Member States and global civil society. The goals are contained in paragraph 54 of the UN General Assembly Resolution A/RES/70/1 of Sept. 25, 2015. One of those goals, Sustainable Development Goal 7 (SDG 7), calls for ensuring access to affordable, reliable, sustainable and modern energy for all by 2030.

The *Paris Agreement's* central aim is to strengthen the global response to the threat of climate change by "holding the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5 degrees Celsius." The Agreement also aims to make "finance flows consistent with a pathway toward low greenhouse gas emissions and climate-resilient development." According to the Agreement, countries shall publicly outline nationally determined contributions (NDCs)³ that they intend to achieve for reductions in greenhouse gas emissions. The Paris Agreement was agreed by 197 Parties during the 21st Conference of the Parties (COP 21) of the UN Framework Convention on Climate Change in Paris in December 2015 and entered into force in November 2016.

The 26th Conference of the Parties in 2021 (COP 26) adopted the Glasgow Climate Pact, which established a range of items aiming to build resilience to climate change, curb greenhouse gas emissions, and scale up the necessary climate finance. In the lead-up to COP 26, more than 120 countries announced new emissions reductions targets by 2030. Governments representing about 70 percent of global carbon dioxide emissions had pledged to bring those emissions to net-zero by 2050 or soon after. Many governments and financial institutions had also adopted restrictive measures toward financing new coal power. This conference was the first time ever the Parties to a UN Climate Conference explicitly agreed to accelerate the phasedown of unabated coal power.

Paris Alignment: At the 2019 UN Secretary-General's Climate Summit, the multilateral development banks (MDBs), including AIIB, jointly announced to align their financings with the goals of the Paris Agreement. Subsequently, a joint MDB approach for assessing Paris Alignment of MDBs' investment operations was shared at COP 26, which will guide the operationalization of MDBs' respective commitments.

³ According to Article 4, paragraph 2 of the Paris Agreement, "Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions."

The Global Energy Landscape

- 6. The 2022 update to the Strategy is made on the cusp of a profound transformation of the global energy landscape, driven by ambitious global, regional, and national goals and commitments to shift to a low or zero-carbon energy system. Meanwhile, concerns are mounting that energy security and energy affordability aspirations still have not been met in much of the developing world, and that the global energy system and transition process remain vulnerable to external shocks, as witnessed by the COVID pandemic and war in Ukraine, which further heighten concerns about energy security and affordability. Yet global commitments to combat climate change and recent technological developments give hope that the transformation can lead to the attainment of the goals of energy security, affordability, and sustainability concurrently.
- 7. *Energy demand and access.* The growth of global primary energy demand in 2010-2019 was slower than during the previous decade but continued to be driven by nonmembers of the Organisation for Economic Co-operation and Development (OECD) with their demand increasing at an average annual rate of 2.5 percent while that of OECD members contracted by 0.2 percent annually.⁴ Energy access has improved but progress varies widely across countries and falls far short of the pace required to achieve universal access to affordable and reliable modern energy services by 2030 as required by SDG 7.
- 8. *Market volatility.* For several decades, energy security and price volatility have been a source of concern, particularly for low-income countries. As a result of supply and demand uncertainties exacerbated by the continued impact of the pandemic, energy prices have risen rapidly from the record low levels of 2020. The international economy and energy markets are seeking a new balance. Volatility and rapidly rising energy prices accelerate inflation, cause uncertainty surrounding energy investments, harm economic growth, and have a particularly detrimental impact on energy-importing countries.
- 9. **Technology and electrification.** Significant technological advancements have taken place in recent years, leading to the sharp fall in the cost of renewable energy along with improvements in processes and technologies that increase energy efficiency and reduce emissions. Innovative business models have grown up to develop smart and sustainable demand-side solutions and facilitate the rise of prosumers as new energy sector players. These combine new technologies with existing infrastructure, such as in the areas of distributed generation or infrastructure for electric mobility. The electricity subsector plays an increasingly critical role in this ongoing energy transition, which will gradually change the structure of the energy mix to a less carbon-intensive one. Solar and wind power have already become competitive in some markets. On the other hand, further cost reductions and technological breakthroughs of some key enabling technologies—such as energy storage, hydrogen, and digital solutions—are still required, particularly to facilitate renewable energy integration.
- 10. *Climate change.* The energy sector's interaction with climate change is two-fold: on the one hand, the sector is prone to the adverse impacts of climate change such as droughts, floods, extreme weather events and the rise of sea levels. On the other hand,

⁴ IEA data and statistics.

it is the largest contributor to anthropogenic climate change, making it the pivotal sector in responding to climate change and economy-wide decarbonization. Its role in addressing climate change has gained unprecedented global recognition in recent years, further driving the search for innovative solutions and the development and uptake of low-carbon technologies.

Issues and Challenges in Asia

- 11. The issues and challenges that Asian countries confront in their energy sectors are largely similar to those facing most non-OECD countries they are driven by the need for affordable, sustainable and reliable energy systems to support national, regional, and global economic growth and human development.
- 12. The region's energy demand grew at a rate of 2.4 percent per year from 2010-2019, almost twice the global rate, on the back of population growth and economic development that supports improvement of living standards. As a result, the region's increase in energy demand during this period accounted for 94 percent of the global increase (Table 1). It is worth noting that 96 percent of Asia's growth in demand was driven by developing countries. China and India together represented over 54 percent of Asia's total demand. It is expected that Asia's energy demand will continue to rise at an annual rate between 0.6% to 1.6% in the next decade.⁵

By Region	2010	2019	CAAGR* 2010–2019	% of total in Asia
Asia	6,516	8,081	2.4%	100.0%
China	2,536	3,389	3.3%	41.9%
India	667	938	3.9%	11.6%
Russia	693	773	1.2%	9.6%
Turkey	106	147	3.7%	2.0%
OECD Asia	918	866	-0.6%	10.7%
Rest of Asia	1,596	1,968	2.4%	24.3%
World	12,813	14,486	1.4%	-

Table 1: Total Primary Energy Demand (Mtoe), 2010-2019

* CAAGR – Compounded Annual Average Growth Rate *Source*: IEA data and statistics, 2010-2019.

- 13. While the rapid rise in energy demand reflects economic and social progress, the benefits of modern energy are not yet available for all in Asia. Meanwhile, strong energy demand is the source of several challenges. Therefore, the following issues in the region call for AIIB's attention: (i) energy access and affordability; (ii) energy sustainability; (iii) energy security; (iv) hurdles of transitioning to cleaner energy.
- 14. *Energy access and affordability.* The level of access to modern energy in Asia has improved markedly over the years, but a significant number of people still lack modern energy services to support their basic needs and improvement of living standards. Between 2011 and 2018, the number of people without electricity in Asia was reduced by more than three-quarters from 633 million to 146 million people. When constrained by affordability and technical design, however, electrification often provides only for

⁵ IEA. 2021. World Energy Outlook. Paris.

basic human needs. Electricity consumption per capita in Asia's low-income countries is only a fraction of the world average. In addition, the reliability of the power system in many countries does not meet the standards required by sophisticated equipment and the connectivity needs of households and businesses. Therefore, the mission of electrification is toward delivering electricity services for all to facilitate the realization of full human and economic development potential. The clean cooking agenda has advanced more slowly than electrification with 1.6 billion people in Asia still relying on traditional biomass, unprocessed coal, and kerosene for home cooking in 2018. These fuels expose their users to indoor pollution and the consequent detrimental health impacts. The lack of access also relates to the issue of energy affordability, which continues to be a key concern in Asia, especially in low-income countries where energy bill takes a much larger proportion of household income compared to developed economies. This renders many households in the region vulnerable to price shocks and other market distortions.

15. Energy sustainability. Despite growing diversification, 91 percent of Asia's energy demand increase during 2010–2019 was met by fossil fuels. In 2019, Asia's reliance on fossil fuels was 86 percent—5 percentage points higher than the global average (Figure 1), though a notable shift can be observed in the growth portfolio during the latter part of the decade. Non-fossil fuels represented a mere 3 percent of the supply increase from 2010–2014, but the period from 2014–2019 saw the share increase to 28 percent. Meanwhile, there was a growth of natural gas use while the share of coal in incremental supply declined sharply (Figure 2).



Figure 2: Source of Incremental Energy Supply (2010-2019)⁶



Source: IEA data and statistics, 2019.

Source: IEA data and statistics, 2010-2019.

16. Economic growth and energy use are linked, but a gradual decoupling between the rates of economic growth and energy demand can be observed globally. Modernization and deliberate energy efficiency measures as the main drivers for the decoupling are pivotal for energy sustainability. Energy intensity in Asia declined steadily during 2000–2018 and reached 5.1 megajoules per USD (constant 2017 GDP), indicating improved energy efficiency. However, it remained higher than the worldwide average of 4.8 megajoules

⁶ Note that less than 1 percent of incremental supply was met by other sources including cross-border electricity trading.

per USD. SDG 7 sets a target for energy intensity to decrease by 2.6 percent per year.⁷ Regionally, this reduction rate target has been achieved in most of Asia, except for Western Asia, Oceania, and Russia, where annual energy intensity reduction ranges between 1.1 percent to 2.3 percent during 2015–2018. In view of the slow progress at the early monitoring period, the SDG target was revised upwards in 2018 to 3 percent.⁸

- 17. Asia's intensifying demand for energy coincides with the growing urgency of addressing climate change and environmental degradation. As a result of fossil fuel combustion and inefficient energy use, Asia's energy-related CO₂ emissions grew at twice the global average, at 2.4 percent in 2010–2019. In 2019, the region accounted for 70 percent of the global total energy-related CO₂ emissions.⁹ Furthermore, air pollution affects Asia disproportionally more than the rest of the world. The region hosts over 95 percent of global observation stations reporting annual mean concentrations of PM₁₀ and PM_{2.5} that exceed ten times the WHO's recommended level.¹⁰
- 18. Diminishing biodiversity and loss of species are intertwined with the adverse impacts of anthropogenic climate change and local pollution. Human activity, including in the energy sector, is the main contributor to the increasing biodiversity challenges worldwide. According to the regional assessment report on Biodiversity and Ecosystem Services for Asia and the Pacific Region, covering over 60 countries in Asia, the subregion is home to 17 of the 36 global biodiversity hotspots, eight of the top 10 most plastic-polluted rivers in the world are in Asia, and nearly 25 per cent of the region's endemic species are threatened.¹¹
- 19. Energy security. Continuing economic development needs to be underpinned by a reliable and stable supply of energy. Energy security is a crucial concern of many AIIB members and is dependent on country-specific circumstances, including resource endowment, diversity of energy mix, geopolitics, international trade, level of connectivity, among others. AIIB members include both the world's leading energy exporters and those highly dependent on energy imports. Reliance on fossil fuel imports subjects many to the risks of supply chain disturbances and price volatility. Renewable energy is domestic and less exposed to global risks. However, variable renewable energy plants do not supply a consistent flow of electricity the way conventional energy sources do and require other types of resources to balance generation. Development of renewable generation at scale also depends on the availability and prices of critical minerals. Infrastructure investments in gas and electricity transmission and distribution (T&D), energy storage, regional interconnectivity, and flexibility resources to balance variable renewable energy are among the crucial responses to energy security challenges.

⁷ Tracking SDG 7 – The Energy Progress Report, available at <u>https://trackingsdg7.esmap.org/</u>.

⁸ Sources: IEA. 2020. World Energy Balances and Energy Statistics Database 2018. United Nations, New York, 2020, combined by and available at <u>https://trackingsdg7.esmap.org/results</u>

⁹ IEA. 2021. World Energy Outlook 2021, Table A.26, Paris.

¹⁰ WHO. 2018. Ambient Air Quality Database. World Health Organisation, Geneva.

¹¹ IPBES. 2018. The IPBES regional assessment report on biodiversity and ecosystem services for Asia and the Pacific. Karki, M., Senaratna, Sellamuttu, S., Okayasu, S., and Suzuki, W. (eds). Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Bonn, Germany.

- 20. *Hurdles of transitioning to cleaner energy.* Transitioning to less polluting low-carbon energy systems will require many measures to be implemented in parallel, including promoting higher energy efficiency and fuel shifts, developing and applying emission abatement technologies, electrification of end-uses, and determined deployment of renewable energy. This transformation will require AIIB members to overcome new constraints and hurdles relating to uneven resource endowment, supporting infrastructure, shift of employment opportunities, and financing gap:
 - Asia is endowed with abundant renewable energy resources, but they are unevenly distributed across the region and within countries. Moreover, high population density, land topography and other factors limit resource potentials in some Asian countries—such as in Bangladesh, Korea, and Singapore—where land availability and cost are critical factors. Such situations, among others, warrant the need for transition fuels that can quickly lower the carbon intensity of energy supply, and enhanced connectivity and trading mechanisms that facilitate the long-distance transmission of renewable energy both within countries and across borders.
 - Expansion of variable renewable energy requires investments in the electricity infrastructure, including flexibilities in existing generation capacity, modifications in the operation and design of electricity markets, and development of energy storage and demand-side responses. Many Asian countries are burdened with aging and outdated grid systems, which are ill-suited to accommodate a high share of variable renewable energy. For example, the transmission and distribution losses in South Asia and some Central Asian countries are estimated to be more than two times higher than the world average.¹²
 - Substantial new employment opportunities will be created in the clean energy sector, which are expected to outpace job losses in conventional energy sectors. However, the job transfer will not be on a one-on-one basis due to the different requirements for skills and the jobs being located in other areas. The renewable energy sector employed over 7 million people directly or indirectly in Asia in 2019-2020, accounting for 62 percent of global renewable energy employment.¹³ However, it is estimated that the region will lose around 2 million jobs in the coal sector and 0.2 million jobs in the oil and gas sectors by 2030 based on IEA's Announced Pledges Scenario.¹⁴ The impact will be especially pronounced in countries and communities heavily dependent on conventional energy production and will require specially designed programs to meet the social and economic needs of these displaced workers and their communities.
 - Achieving a smooth and just energy transition will require significant efforts to redirect capital flows toward clean and sustainable energy investments. Of the USD2 trillion global energy investment in 2021, only USD750 billion was invested in clean energy.¹⁵ According to IEA's World Energy Outlook scenarios,¹⁶ holding

¹² World Bank Data on Electric Power Transmission and Distribution Losses.

¹³ IRENA. 2021. Renewable Energy Jobs Review. Abu Dhabi.

¹⁴ IEA. 2021, World Energy Outlook. Paris.

¹⁵ IEA. 2021. World Energy Investment. Paris.

¹⁶ IEA. 2021. World Energy Outlook. Paris.

the global temperature rise "well below 2°C" as targeted by the Paris Agreement will require clean energy investments to double their current levels by 2030 and triple if the 1.5°C target is to be attained. This implies a rapid redirection of investments from conventional energy to energy efficiency, clean power generation, electricity infrastructure, and use of lower carbon energy in the building, industry, and transport sectors. In addition, transition investments are considered crucial for enabling emissions reductions, although they themselves do not deliver zero-emissions energy services. It is estimated that USD500 billion worth of transition investments are needed annually between 2022–2030. Private financing, from both domestic and international sources, is expected to meet more than half of the investment needs to achieve clean energy transition. Governments, MDBs and other development institutions, while serving as important sources of financing, need to be at the forefront to mobilize sustainable financing from the private sector to fill the large investment gap.

Lessons Learned

- 21. The update to the Strategy has been informed by lessons learned from implementation of the Strategy and AIIB's energy sector investments during its initial years of operation as well as Early Learning Assessments on energy projects conducted by its Complaints-resolution, Evaluation and Integrity Unit (CEIU). The Strategy also draws lessons from other MDBs which have issued new policies, strategies, and evaluations regarding their energy sector operations during the same period.
- 22. AIIB's energy sector investments (i.e., debt financing and financial intermediary investment including on-lending and funds) amounted to over USD5.8 billion over the period 2016-2021, representing 28 percent of AIIB's total regular financing amount¹⁷ and making the energy sector the largest infrastructure sector by investment volume. AIIB's energy sector portfolio covers conventional electricity generation, gas, electricity transmission and distribution (T&D), and various types of renewable energy and supporting infrastructure, including solar, wind, geothermal, hydropower, and energy storage.
- 23. Noteworthy lessons include the following: (i) Demand for gas investments is growing against the backdrop of AIIB members' commitments to phase down coal and is increasingly driven by the private sector. Gas projects generated specific benefits of enhancing energy security, reducing pollution through coal-to-gas switching, and improving efficiency. However, gas investments are also coming under increased scrutiny with respect to Paris Alignment; (ii) Electricity T&D projects were predominantly in the public sector and generally straightforward in preparation. However, capacity building is required to better understand the value of integrating technological advancements that improve grid efficiency and flexibility; (iii) Enabling policy incentives and a conducive environment for the private sector are essential to

¹⁷ The stated energy sector investment amount presents a conservative calculation and does not include energy investment committed under multisector funds. AIIB's regular financing excludes financing support provided under the COVID-19 Crisis Recovery Facility, approved in April 2020.

spur renewable energy investments. Despite significant progress, many AIIB members are still at an early stage of attracting private financing, indicating the need to deepen partnerships to create better conditions for financing. Moreover, concessional financing continues to be needed to improve bankability, especially in less developed members; (iv) Some established renewable energies, including hydropower and geothermal, involve complex design and implementation arrangements, requiring intensive engagement by AIIB and development of staff capacity; (v) Energy efficiency investments, especially at the demand-side, were hindered by weak regulatory frameworks, limited implementation capacity, and fragmentation across infrastructure sectors, which indicates the need for upstream support, innovative business models and a cross-sectoral approach; and (vi) Financial intermediation was effective in directing additional financial resources particularly to subsectors needing smaller scale financing or in markets where AIIB did not have an established reputation. AIIB has also invested into energy-focused private equity funds, allowing an expansion of available equity while undertaking several innovative capital market transactions increasing investor interest in the broader Asian energy sector.

24. MDBs have updated their energy policies and strategies in recent years, particularly with a focus on addressing the evolving trend of decarbonization. While MDBs are jointly committed to supporting a just transition,¹⁸ they have also tightened conditions for financing fossil fuel-related projects with a notable intent to exclude coal. MDBs' updated policies and strategies have also given stronger weight to renewable energy, innovative technologies, digitalization, electrification, and decentralized energy systems while highlighting the need for regulatory reform and new business models as a basis for achieving the desired objectives.

Objective of the Energy Sector Strategy

- 25. The objective of the Strategy is to provide the framework, principles, and operational modalities to guide AIIB's energy sector engagement, including the development of its project pipeline and subsectoral lines of business.
- 26. The Strategy embraces AIIB's vision, mission, the four thematic priorities, and other institutional goals set out in the Corporate Strategy. It finds inspiration from the 2030 Agenda for Sustainable Development to pursue universal access to affordable, reliable, and modern energy services by 2030. It also aligns with AIIB's commitment to the Paris Agreement.
- 27. The implementation of the Strategy will be informed by the strategic and sectoral planning processes of AIIB's members at the regional, national, and subnational level. AIIB seeks to benefit from the work undertaken by other development partners in the energy sector. Regular monitoring and reporting of portfolio composition will be an important discipline and help build a portfolio that reflects the Strategy and is aligned with AIIB's core values.

¹⁸MDB Joint Statement on Just Transition High-Level Principles. <u>MDB-Just-Transition-High-Level-Principles-</u> statement._19.11.2021.pdf (aiib.org)

28. Within this framework, AIIB will support its members to: (i) develop and improve their energy infrastructure; (ii) increase energy access; (iii) facilitate their transition to a less carbon-intensive energy mix; and (iv) meet their goals and commitments under the global initiatives.

Guiding Principles

- 29. The Bank's strategy for investing in the energy sector will be guided by the following six principles. While the transition to low carbon energy supply will bring its own challenges, the forward-looking nature and flexibility of the principles allow them to guide the development of AIIB's energy portfolio for it to meet the needs of members as to access affordable, secure, efficient, clean and sustainable energy in support of their future development through this transition.
- 30. *Principle 1: Transition to low carbon energy supply*. Energy is the dominant contributor to climate change, accounting for around 60 percent of total global greenhouse gas emissions. AIIB's support to its members to reduce the carbon intensity of energy supply helps them achieve their long-term climate goals developed in the wake of the Paris Agreement. Energy sector operations, therefore, play a crucial, albeit not exclusive, role in AIIB's commitment to align its operations with the Paris Agreement by July 1, 2023, and its efforts to achieve its climate finance target by 2025.
- 31. AIIB recognizes that the process of transitioning to a less carbon-intensive energy system is already underway and that the deployment strategies for low-carbon technical solutions reflect members' individual primary energy resource endowment, affordability, financing capacity, knowledge, and regulation, among other factors. AIIB will support and accelerate its members' respective transitions toward low-carbon energy mixes through investments in (i) renewable energy; (ii) enabling infrastructure and system flexibility for low carbon electricity and fuels; (iii) fuel shifts from carbon intensive fossil fuels such as coal and oil to lower carbon alternatives; and (iv) associated efforts to mitigate adverse social impacts of energy transition and facilitate a just transition.
- 32. *Principle 2: Promote energy access and security*. Access to affordable and reliable modern energy services is instrumental in underpinning development and expanding economic opportunities for people to improve their lives. It is also a key aspiration of SDG 7. In Asia, lack of such access continues to deprive the most vulnerable people of the basic human needs. Reliance on traditional fuels also extends gender inequality and prolongs exposure to health risks. Furthermore, AIIB considers that the access agenda is not limited to last-mile electrification and realizes that the provision of entry-level solutions (Figure 3) alone does not accomplish the mission of SDG 7. AIIB therefore supports its members in moving to higher service levels of access, ensuring the clean energy services are affordable, of adequate capacity and good quality, available when needed, reliable, convenient, and safe. AIIB also recognizes that efforts to advance energy transition are to be considered in conjunction with the needs for energy access and security under specific member context for co-benefits to be reaped and for the most urgent needs to be addressed. In doing so, AIIB attaches great

importance to new technologies and business models in extending modern energy and fostering access and prosperity through the transition process.

33. AIIB will place emphasis on: (i) promoting, directly or indirectly, access to modern energy by those who currently have little or no access; (ii) improving the affordability, reliability, and quality of electricity supply to serve productive uses and modern society needs; and (iii) reducing the negative health impacts caused by indoor combustion of solid fuels.



Figure 3: Access to Modern Energy Services

Source: Energy for a Sustainable Future: Summary Report and Recommendations, United Nations Advisory Group on Energy and Climate Change, 28 April 2010, New York, page 13.

- 34. **Principle 3:** Realize energy efficiency potential. International experience and primary energy forecasts by international institutions indicate that energy efficiency is one of the major means to achieve global environmental objectives. Prosperity and well-being can no longer be gauged only by the consumption of energy. The focus should instead be placed on the efficient provision of the services derived from energy. Given the high energy intensity in most non-OECD countries in Asia, AIIB will cooperate with partners operating in Asia to tap the existing large, but dispersed, potential for energy efficiency in industry, buildings, and transport. Initially, AIIB will focus on projects that make the most of existing energy infrastructure stocks through (i) rehabilitation and upgrading of existing energy facilities; and (ii) aggressive loss reduction and utility-driven energy efficiency programs in power and gas T&D networks, including reduction of methane leakage. Over time, AIIB will also develop more tailored financial instruments and engage with potential financial intermediaries in these areas.
- 35. *Principle 4: Manage local and regional pollution*. AIIB will support its clients in reducing, limiting, and mitigating the deleterious impact of pollution. Fossil fuel production, transport, and consumption have severe negative impacts on the local environment, especially in Asia's densely populated cities. Historically, issues related to local and regional pollution have been addressed mainly by limiting emissions of fossil fuel-based power generation, especially coal-fired plants. While pollution from large energy infrastructure can be controlled through statutory measures, the dispersed energy end uses, such as traffic or household energy, are more challenging to address and often require a shift of energy sources embedded in a systemic transformation. AIIB will (i) support cross-sectoral projects aimed at pollution reduction at the city, national,

and regional levels; (ii) support fuel shifts and cleaner energy infrastructure solutions resulting in lower air pollution; and (iii) integrate air pollution control and carbon intensity reduction, where relevant.

- 36. Principle 5: Mobilize private capital. This principle reaffirms AIIB's Corporate Strategy thematic priority on Private Capital Mobilization, which aims to help close the enormous infrastructure investment gaps in developing Asia through mobilizing private financing both at the project and sector level. For varying reasons, to date, private capital investments in energy and infrastructure have been marginal in non-OECD countries, although partial credits, investment, and country guarantees by MDBs have been instrumental in promoting successful projects. Innovative approaches have also been initiated using grants and concessional financing to reduce the cost of electricity generated under public-private partnerships (PPP) or to improve risk sharing in PPP ventures. AIIB will: (i) explore innovative models, at both project and sector level, to mobilize private investments in energy infrastructure; (ii) build upon the successful experience of and lessons learned by MDBs operating in Asia, especially in PPPs, ensuring that the costs and risks are appropriately shared and distributed; (iii) explore new cooperation modalities with clients and private sector partners to meet members' needs; and (iv) in doing so, avoid crowding out the private sector. When pursuing such opportunities, AIIB will evaluate risk carefully and will put in place appropriate measures to mitigate and manage such risks.
- 37. *Principle 6: Promote connectivity and regional cooperation*. This principle reflects AIIB's Corporate Strategy thematic priority on *Connectivity and Regional Cooperation*. Regional and in-country connectivity, complemented by regional cooperation, are essential to take advantage of synergies, increase the market size to improve competitiveness, and create a critical mass for cooperative Research and Development (R&D) and manufacturing capabilities. Efforts deployed by MDBs and bilateral agencies in Asian countries and other regions have had moderate success. AIIB will engage its members and pursue regional, cross-regional, and domestic connectivity of energy systems, especially power and gas, with a view to: strengthening systems; improving the security and efficiency of energy supply; optimizing the use of resources; allowing for greater flexibility in their operation; reducing local, regional, and global adverse environmental and social impacts; and fostering greater use of renewable energy resources.

Implementation

- 38. AIIB's thematic priorities and the principles outlined above will guide its investment approach in the energy sector. The principles and the investment approach will continue to be reviewed as needed so that AIIB's financing addresses the most current needs of its members and the energy landscape.
- 39. A future review of the Strategy will take into account the lessons of experience and integrate into its possible revisions, for example, the following:
 - Advances in scientific knowledge as emerging technology opportunities become available and affordable to accelerate the transition to sustainable energy systems

(e.g., power and thermal storage), improve operational efficiency along the power supply chain (e.g., digitalization), and facilitate better use of fossil fuels by limiting carbon (e.g., through carbon capture and storage) and methane emissions.

- Changed economic circumstances, as costs of low-carbon, zero-carbon, and enabling technologies may continue their respective decreasing trends experienced for some of them over the last decade.
- 40. Application of the guiding principles will take into account, to the extent possible, members' constraints and unique circumstances. AIIB will align its support with members' energy related policies and commitments, including the long-term low greenhouse gas emission development strategies (LTS) and NDCs, and conduct project-level assessments to align them with the goals of the Paris Agreement. All AIIB supported projects will go through a comprehensive due diligence process to confirm that they meet the policy provisions of the AIIB's Environmental and Social Framework (ESF).

Sectoral Approach

- 41. *Power T&D*. Power grid infrastructure development will be an essential component of AIIB's mandate to promote connectivity and regional cooperation. Support for the development of T&D infrastructure remains indispensable for the transfer of generated electricity to demand centers without the bottlenecks and high losses that are hampering economic growth in many Asian countries. MDBs operating in the region have deployed great efforts, but substantial investments are still needed to achieve the SDG 7 targets for access to modern energy and allow for smooth renewable energy integration into power systems.
- 42. AIIB will support: (i) new T&D projects to increase power systems' resiliency to natural disasters, and assist members in "leapfrogging" to state of the art T&D technologies, digital solutions and smart grids to empower consumers, and operate systems efficiently; and (ii) rehabilitation and reinforcement of existing networks to increase their resiliency to natural disasters, reduce technical losses, allow smooth integration of variable renewable energy, and improve reliability of supply. Despite the generally lower risk of T&D projects, attention will be paid in their design to environmental risks, effects on birdlife, and the impact of ecosystem fragmentation. These risks should be avoided or mitigated through early consideration of environmental and social issues in the planning process and use of appropriate technological solutions.
- 43. Energy efficiency investments. Energy efficiency investments hold a crucial role in achieving the "well below 2°C" target of the Paris Agreement. This goal is projected to require more than doubling global energy efficiency investments. Demand-side efficiency investments are in most cases economically justified but financially challenging because of the pervasive subsidization of fossil fuels and electricity. They are also usually small and fragmented. Their implementation requires the use of financial intermediaries and capacity building, as indicated by AIIB's operational experience and the most successful public and private sector projects supported by MDBs to date. For example, investments in energy efficiency in new as well as older

buildings, especially housing and small and medium enterprises, are often small-scale and might require retailing channels and specific financial instruments (such as financial intermediary loans) and technical assistance to build client capacity. Most energy efficiency activities undertaken by MDBs have been supported by grants to build the capacity of financial intermediaries to evaluate potential energy efficiency projects and monitor achievements during their implementation. AIIB will cooperate with multilateral, bilateral, and other partners to address this constraint.

- 44. AIIB will proactively support generators and utilities to: (i) improve the use of existing electricity generation stocks through rehabilitation, to reduce fuel consumption, introduce predictive maintenance methods, and upgrade regulation systems; (ii) develop and implement loss reduction programs at all levels of the electricity supply chain and demand-side management programs; (iii) design and implement utility-driven final use efficiency initiatives, such as green lighting and improvement in the insulation of buildings; and (iv) enhance the efficiency of district heating networks and extend them to meet the needs of rapidly urbanizing cities. While developing the skills and approaches to develop its own portfolio, AIIB will partner with other MDBs and bilateral agencies operating in the region to scale up efficiency programs.
- 45. *Renewable energy investments*. Renewable energy investments are essential to limit CO₂ emissions. AIIB will support members to develop variable renewable energy—hydropower, wind, solar, and other sources—to reduce fossil fuel consumption and increase access to modern energy through decentralized generation and mini- and micro-grids. To further promote renewable energy development in members, AIIB will proactively:
 - Support *hydropower* that is technically, economically, and financially viable and environmentally and socially sound, in a manner consistent with the provisions of AIIB's ESF, good practices, and lessons learned from other MDBs operating in Asia and elsewhere. The development of hydropower, of different scales, in an environmentally and socially sound manner could make an important contribution to sustainable energy supply. This includes multi-purpose, run-of-the-river, and pumped storage hydropower investments. AIIB has already co-financed the upgrading of generation capacity and rehabilitation of existing hydropower infrastructure to improve efficiency and dam safety. It will continue to pursue such capacity upgrading, rehabilitation, and dam safety opportunities at existing facilities as they arise, where possible in combination with variable renewable energy generation. AIIB's support for the development of hydropower will seek to improve quality, more comprehensively address environmental and social issues, and reduce the risk of these investments for the public and private sector.
 - Support variable centralized and decentralized renewable energy generation. For *wind and solar*, AIIB will build partnerships with other MDBs and bilateral agencies operating in Asia and seek access to grants from global funds and partners, to improve the financial viability of investments in variable renewable technologies, and to share associated risks. AIIB will also promote *distributed generation* (e.g., mini- and micro-grids) to reduce burdens on centralized systems, increase renewable energy penetration, and improve reliability of power supply.

- Support members (including possibly high-income countries with sizable variable renewable energy resources and the financial capacity to support them) to develop *innovative and transformative projects*, including electricity storage, offshore wind, hybrid renewable energy plants, among others. AIIB will explore the development of transformative but still high-cost technologies such as low- or zero-carbon hydrogen production and concentrated solar power, to contain consumption of fossil fuels and help create a market of scale for such technology. The latter could be done through increased cooperation among Asian countries to tap the synergy of regional technological and manufacturing capabilities and make the renewable energy programs more affordable and replicable at lower cost.
- Support the development of the significant *geothermal* resources identified in many AIIB members, alone or in partnership with other MDBs and bilateral agencies, through the development of new approaches to reduce resource risks. Sovereign loans to members or state-owned entities could be considered to confirm resources prior to requesting private sector proposals for power generation or PPP approaches based on appropriate resource risk sharing.
- Support, when appropriate and sustainable, modern *biomass* technologies to meet member energy needs, especially in rural areas, and development of biofuels, with particular attention to environmental and social impacts, including ecosystems, biodiversity, rural communities, and food security.
- 46. *Fossil fuel investments*. Fossil fuels will inevitably continue to play a role in the energy mix of most AIIB members for some time. However, the Glasgow Climate Pact, adopted at the COP 26,¹⁹ called on the Parties to transition to low-emission energy systems, including accelerating the phasedown of unabated coal power and phase-out of inefficient fossil fuel subsidies. Many AIIB members have pledged to transform their energy systems to reach net-zero emissions or carbon neutrality. Consequently, AIIB's approach to fossil fuels will follow its commitment to Paris Alignment and the underlying assessment methodology and will take into account the climate impact of the intended energy services, in addition to the development benefits. AIIB will assess all projects in the sector for the risk of creating carbon lock-in and stranded assets with consideration to the member's national energy strategies, climate policies and commitments expressed in its NDC and LTS. AIIB will consider the unique circumstances of its members and seek to build an energy sector portfolio that reflects equity and the principle of common but differentiated responsibilities, as per the Paris Agreement. In light of the potential role of emerging technologies like hydrogen and CCS in decarbonization, AIIB will also consider their future integration in project design where feasible.
- 47. *Coal.* Financing new thermal coal mining and power generation from coal is not aligned with the Paris Agreement. AIIB will not finance new coal-fired power and heating plants or projects that are functionally related to coal, meaning associated facilities enabling coal use such as roads or transmission lines serving coal-based facilities directly and materially, or industrial plants drawing their energy from dedicated coal-

¹⁹ UN Climate Change Conference in Glasgow (COP 26).

based facilities. AIIB may support investments in and efficiency improvements of power and heat distribution networks to improve energy access irrespective of the supply-side energy mix. AIIB may also support projects that aim at early retirement of coal plants, replacement of coal with lower-carbon fuel sources, or projects for decommissioning, remediation, and redevelopment of affected coal facility sites and communities.

- 48. *Oil.* Considering the high carbon intensity of oil consumption and the availability of private sector financing, AIIB will not finance oil sector investments. AIIB may support investments in oil-fired power generation as part of renewable energy hybrid systems to supply clean and reliable energy for small grids in isolated locations, island communities, and temporary disaster response initiatives.
- 49. *Natural gas.* The increased use of natural gas instead of oil and coal has helped many developed economies reduce carbon emissions and air pollution. It is expected that natural gas will also play an essential role in the transition strategies for many developing countries in the region, especially in hard-to-abate sectors. In addition, natural gas potentially contributes favorably to members' energy security, particularly when the resource is domestic. Gas-fired power also offers flexibility for balancing the variability of renewable energy and can thus enable a higher share of renewables in the generation mix. However, it is recognized that the transitional role of gas will evolve over time and should be carefully assessed within the context of commitments under the Paris Agreement. Therefore, AIIB will focus its funding for natural gas investments on projects linked to members' energy and climate objectives and decarbonization trajectories.
- **50.** AIIB's support to natural gas mid-stream infrastructure (LNG terminals, storage, and transmission pipelines), natural gas-fired power generation and downstream (distribution and end-use) facilities is conditional on the investments credibly replacing higher carbon fuels, inefficient technologies, or oil- and coal-fired energy facilities, thus reducing the carbon intensity of the energy sector immediately or over time. AIIB also supports investments in natural gas designed to assist the integration of renewable energy. AIIB will consider each member's LTS, NDC, and other such plans and scenarios that enable a context for a credible assessment of Paris Alignment. AIIB investments in natural gas should avoid displacement of low-carbon solutions, or a mix of such solutions, that are equally or more feasible technically and economically and that would be able to provide the service at equivalent quality and scale as proposed for the natural gas investment. AIIB will not finance natural gas upstream activities because of their risk of long-term carbon lock-in. AIIB will, however, actively support international initiatives for the reduction of methane leakage and routine gas flaring.
- 51. *Nuclear power generation*. Financing of nuclear plants will not be considered by AIIB. Should demand arise for very special cases of support for safety improvement, AIIB could possibly consider engagement. AIIB does not anticipate developing the highly specialized expertise required to be involved in technically complex and capital-intensive nuclear projects.

Cross-Cutting Issues

- 52. Global environmental, social, and sustainable development goals and principles are widely accepted and embraced by other MDBs, bilateral agencies, and members. However, their realization is not always straightforward. Green energy investments require: (i) new approaches to evaluate their economic viability because they may not be economically justified according to the assumptions traditionally used by most MDBs; (ii) highly skilled and diversified teams and a solid knowledge base; (iii) methods of addressing environmental and social aspects; (iv) careful attention to taking gender and disability into account; and (v) effective coordination among sectoral teams within the financing institutions to meet client needs efficiently. These issues are discussed below.
- 53. *Conducting economic evaluation.* The economic evaluation of energy projects raises issues relating to the assumptions used for discount rates, carbon price, and externality costs of local pollution, such as: (i) high discount rates indicate a strong preference for the present; (ii) low carbon prices underestimate the economic impacts of climate change; and (iii) low local and regional pollution externality costs lead to pollution levels beyond the absorptive capacity of the environment, as experienced in most Asian cities. AIIB will use an appropriate discount rate and shadow price for carbon emissions and other externalities in its economic evaluation of projects to determine their economic viability. Recognizing the complex nature of externality evaluation, AIIB will continue to build its staff capacity for robust economic evaluation.
- 54. **Building highly skilled multi-disciplinary teams.** AIIB has built a highly skilled and diversified team of staff and consultants with recognized expertise in the sector. This has contributed to the successful development of a high-quality portfolio and a solid understanding of the sectoral landscape. AIIB will continue to build its staff capacity and deepen its sectoral knowledge in view of the need to expand its investment and adapt to the evolving energy sector context. AIIB also recognizes the importance of a supportive policy environment for project success. While AIIB does not foresee support for policy-based financing instruments, it may develop programmatic loans, performance-based lending and other innovative financing instruments that are tailored to client needs and circumstances.
- 55. Addressing environmental and social aspects. The provisions of the ESF, as updated in 2021, will continue to guide implementation of the Strategy. Energy system impacts include not only climate change and air pollution, but also impacts on human settlements, land use, and livelihoods, as well as on water bodies, landscapes, ecosystems, and biodiversity. As appropriate, environmental and social assessment—both strategic and project-specific—and other specialized instruments, including project-level grievance redress mechanisms, will be used to address environmental and social aspects of operations. In the case of financial intermediaries, attention will be paid to their capacity for environmental and social management and careful screening of subprojects. AIIB's Project-affected People's Mechanism also serves as an independent accountability mechanism to address complaints from stakeholders about the environmental and social risks and impacts of projects financed by AIIB.

- 56. *Climate Change.* Under the provisions of the ESF, AIIB requires its clients to assess proposed projects with respect to climate change mitigation and adaptation. This includes assessing the impacts of the project on climate change (i.e., GHG emissions), and designing and implementing the project so as to minimize emissions in accordance with the aims of the Paris Agreement. Clients are required to assess the risks induced by climate change on the project, and to design and implement the project so as to minimize the project's vulnerability and increase its resilience to the adverse impacts of climate change. AIIB also requires its clients to assess alternatives under their projects and implement technically and financially feasible and cost-effective options that support them in meeting their NDCs. Finally, AIIB requires its clients to develop an estimation of GHG emissions under their projects, with AIIB support where they lack the necessary capacity to do so.
- **57.** *Greenhouse Gas Reporting.* Under the ESF, AIIB mandates GHG accounting on a phased basis, starting with energy sector projects. If AIIB determines that the project is expected to produce or currently produces significant levels of GHG emissions annually, that an accounting of such emissions is feasible, and that the client has the capacity to do such accounting, it will require the client to conduct an ex-ante GHG accounting assessment (i.e., gross emissions) for the project before approval, based on internationally recognized methodologies and good practice acceptable to AIIB. The client will be required to report to AIIB on the results of these assessments, and AIIB will disclose gross emissions following consultation with the client.
- 58. *Commitment to Social Sustainability and Inclusiveness.* The Corporate Strategy reflects AIIB's firm commitment to social sustainability and inclusiveness by requiring that all investments address direct and indirect impacts, especially on displaced persons, vulnerable groups, and community health and safety. Social sustainability promotes inclusive access to project benefits for all citizens—irrespective of age, gender, location, ethnicity, and other socio-economic characteristics—and particularly for groups which are often marginalized, vulnerable, or excluded from access to services. Areas where AIIB gives particular emphasis include the following:
 - Promoting gender equality. AIIB recognizes that access to modern, sustainable energy and energy-based technologies can significantly enhance women's lives by reducing their time and labor burdens, improving their health, and providing them with opportunities to engage in economic activities. Women can thus increase their incomes through entrepreneurship, and young girls can attend school. The transition to sustainable energy creates benefits and opportunities for both women and men, such as employment generation, market opportunities, and better health conditions. AIIB will support project specific measures to address gender gaps with respect to access to energy. In developing AIIB's portfolio, measures will be supported to include women in project consultations, and to address women's priorities and needs so as to increase opportunities for enhanced livelihood and economic benefits as well as improved health outcomes.
 - *Taking disability into account.* In Asia and the Pacific, there are an estimated 690 million people with a disability. While SDG 7 includes access to affordable, reliable,

sustainable, and modern energy for all, people with disabilities face multiple energy-related challenges, such as affordability of essential energy use, and are at particular risk of fuel poverty. Some physical impairments or conditions have more obvious energy-related consequences, such as increased costs of home heating, cooling, and lighting to people of limited mobility. AIIB will support measures to promote access to affordable energy for people with disabilities, to increase opportunities for livelihood and economic benefits in its energy portfolio, and to include people with disabilities in project consultations.

- 59. *Promoting collaborative approaches among infrastructure subsectors.* In developing its portfolio, AIIB will promote holistic approaches to energy sector development, taking into consideration its other sector strategies. AIIB aims to: (i) incorporate renewable energy and energy efficiency across its infrastructure investments; and (ii) promote intra-sectoral collaboration to meet client needs in the most efficient way and maximize synergies among the different subsectors. Examples may comprise: sustainable urban infrastructure, including energy efficient buildings; transport sector initiatives that improve carbon and energy efficiency outcomes; multi-purpose dams with agricultural, industrial and urban sectors as users; digital solutions that improve the efficiency and flexibility of energy infrastructure; and access to modern energy within the rural development and agricultural sectors.
- 60. *Partnerships.* Recognizing that partnerships will be crucial for achieving the desired objectives, AIIB will build and deepen collaboration with partners including MDBs, bilateral agencies, private financial institutions, international facilities, and think tanks, among others. AIIB will seek to (i) conduct timely exchange with partners to broaden its knowledge base and access the latest sectoral developments and (ii) work closely with partners to strengthen project feasibility and quality through mobilizing technical know-how and resources including grants, concessional funds, and technical assistance.

Results Monitoring Framework

61. AIIB will monitor outcome and output indicators to assess the alignment of its evolving energy portfolio with the Strategy principles. The Results Monitoring Framework is attached in Annex 1.

Annex 1: Results Monitoring Framework

As part of the implementation of the Energy Sector Strategy, and in line with the six Guiding Principles of the Strategy, AIIB will monitor outputs and outcomes from its energy investments guided by the Principles that contribute to the development objectives of clients. Key output/outcome indicators have been selected on the basis that they are clear, relevant, and monitorable, and can be aggregated at the portfolio level. All energy projects financed by AIIB will include these indicators in their results framework where applicable. Project level indicators will be aggregated across AIIB's energy investment portfolio to monitor progress toward implementing the Energy Sector Strategy. Total investment guided by each Principle will also be tracked and reported. These indicators will be revisited and refined as experience is gained during AIIB's early years of operation.

Guiding Principles	Portfolio Level Output / Outcome Indicators	Investment amount (US\$ million)
Transition to low carbon energy supply	Renewable generation capacity installed, MW Greenhouse gas emission avoidance, tons of CO ₂ equivalent per year	Amount of AIIB investments in supporting transition to low carbon energy supply
Promote energy access and security	Total generation capacity added / upgraded, MW Total T&D lines / pipelines added /upgraded, km Total T&D capacity added / upgraded, MVA Total electricity storage capacity financed, MW/MWh Number of households with increased /improved access to energy, million	Amount of AIIB investments in energy access and security
Realize energy efficiency potential	Primary energy consumption saved, GWh	Amount of AIIB investments in energy efficiency
Manage local and regional pollution	* measured at specific project level, <i>e.g.</i> reduction of CO ₂ , NO _x , SO ₂ and particulate matter, tons per year	Amount of AIIB investments in local pollution management
Mobilize private capital	Amount of private capital mobilized, USD million	-
Promote regional cooperation and connectivity	* measured at specific project level, <i>e.g.</i> cross- border transmission of electricity (GWh per year) and natural gas (bcm per year)	Amount of AIIB investments to support cross-border trade of electricity and natural gas