

 Early Warning System

ADB-58169-001

Grid Expansion for Energy Transition Project



Quick Facts

Countries	Cambodia
Financial Institutions	Asian Development Bank (ADB)
Status	Proposed
Bank Risk Rating	B
Borrower	Government of Cambodia - Electricite Du Cambodge
Sectors	Energy
Investment Type(s)	Loan
Investment Amount (USD)	\$ 50.00 million



Project Description

According to the Bank's website, the proposed project will: (i) construct the transmission lines for a total of 92 kilometers (km) from GS Pursat to New KCN Town; (ii) upgrade the two substations at GS Pursat and New Krokor; and (iii) support Electricite du Cambodge in project implementation, including capacity building and training.

Strong economic growth in Cambodia in the past decade has resulted in more than four-fold power demand growth, from 4 terawatt-hours (TWh) in 2013 to 16 TWh in 2023. Cambodia's medium demand growth case is projected to reach 36 TWh by 2030, 50 TWh by 2035, and 66 TWh by 2040. In response to rapidly growing power demand, ADB has been assisting the Government of Cambodia to (i) develop the country's first long-term power development master plan; (ii) scale-up renewable energy deployment particularly solar; (iii) finance the country's first national solar park in Kampong Chhnang; and (iv) upgrade and expand the power transmission infrastructure.

While power demand grows, electricity tariff in Cambodia is one of the highest among neighboring countries. This is due to the high cost of fossil-based generation power systems with inefficiency in the generation and transmission infrastructure. In Phnom Penh, households paid electricity tariffs from \$0.09 to \$0.18 per kilowatt-hour (kWh), and industrial consumers pay around \$0.15/kWh in 2023.

Cambodia's existing transmission infrastructure is reaching its capacity while the power demand grows fast. Phnom Penh and Kampong Chhnang provinces are overloaded, resulting in transmission constraints and disproportional transmission losses (2.3%). Pursat province is also expected to face similar challenges due to quickly growing power demand and supply which includes an existing 60 megawatts (MW) solar parks in the area.

To address the challenges mentioned above, Cambodia has a comprehensive development plan of national grid and expanding transmission grid capacity is essential to evacuate an increasing power production from various resources. Among others, installed solar photovoltaic (PV) capacity in Cambodia has increased from 5 MW in 2012 to 437 MW in 2023, which accounts for 11.0% of the domestic installed capacity mix. Establishing a solar park presents an ideal solution for Cambodia to fulfill its daytime peak demand at 10:00 and 15:00, aligning seamlessly with the peak hours of solar power generation. The government aims to scale up renewable energy in generation capacity mix to total 6,326 MW by 2040, which accounts for 59% in total generation under the reference scenario of the Power Development Master Plan, 2022-2040. The project area of Pursat province and Kampong Chhnang province has most abundant solar resources, which has strong potential of solar parks.

Strengthening transmission grid infrastructure is urgently required. Moreover, capacity enhancement of Electricite du Cambodge (EDC) as a grid operator is becoming essential in response to growing demands and increasing variable renewable energy to maintain grid stability for reliable and sustainable power supply.



Early Warning System Project Analysis

Environment: B

Involuntary Resettlement: B

Indigenous Peoples: C



Investment Description

- Asian Development Bank (ADB)

Loan (Concessional ordinary capital resources lending): US\$ 50.00 million



Contact Information

No contacts available at the time of disclosure.

ACCESS TO INFORMATION

You can submit an information request for project information at: <https://www.adb.org/forms/request-information-form>

ADB has a two-stage appeals process for requesters who believe that ADB has denied their request for information in violation of its Access to Information Policy. You can learn more about filing an appeal at: <https://www.adb.org/site/disclosure/appeals>

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