

DEVELOPMENT COORDINATION

A. Major Development Partners: Strategic Foci and Key Activities

1. Cambodia's major development partners in the energy sector are the Asian Development Bank (ADB), Agence Française de Développement (AFD), and the Japan International Cooperation Agency (JICA). In addition, bilateral development assistance is provided by the governments of Australia, Germany, and the United States, among others. Traditionally, development partners have primarily focused on financing power infrastructure, particularly the expansion of high-voltage transmission lines. In recent years, development partners have broadened their support to national grid expansion (including medium- and low-voltage sub-transmission and distribution lines and associated facilities), rural electrification, and capacity building. Key programs approved by the major development partners in the Cambodian energy sector since 2000 are shown in the table below.

Major Development Partners

Development Partner	Name of Project	Year Approved	Amount (million)
Energy sector			
ADB	Provincial Power Supply	2000	\$18.60
	Develop a Strategy for Management of Provincial Supply (TA)	2000	\$0.15
	Greater Mekong Subregion Transmission Project	2003	\$44.30
	Capacity Building of Electricity Authority of Cambodia (TA)	2003	\$0.24
	Second Power Transmission and Distribution Project	2006	\$20.00
	Institutional Strengthening of the Cambodian National Petroleum Authority (TA)	2006	\$1.00
	Cambodia Power Transmission Lines Power Transmission Project	2007	\$32.00
	Capacity Building for the Cambodian National Petroleum Authority (TA)	2010	\$0.40
	Preparing the Rural Electrification Project (TA)	2010	\$1.30
	Medium-voltage Sub-Transmission Expansion Sector Project	2012	\$46.00
	Rural Energy Project (grant from Government of Australia)	2013	\$6.10
	Cambodia Solar Power Project	2016	\$9.55
AFD	Provincial Power Supply (cofinanced with ADB)	2000	\$2.50
	REEs' Access to Finance	2014	\$18.70
	Green Microfinance ("Good solar")	2014	\$10.00
	EDC grid extension	2015	\$87.00
	EDC capacity building program	2015	\$1.30
	Modernization study for EDC (TA)	2017	
DFAT	Energy efficiency and biomass project (TA)	2017	
	Investing in Infrastructure (3i)	2016	\$37.00
JICA	Rehabilitation and Upgrading of Electricity Supply Facilities for Phnom Penh	2005	\$31.0
	Second Power Transmission and Distribution (cofinanced with ADB)	2006	¥2,632
	Phnom Penh City Transmission and Distribution Line Expansion Project (Phase 1)	2014	\$65.00
	Phnom Penh City Transmission and Distribution Line Expansion Project (Phase 2)	2015	\$130.00
	Southern Economic Corridor Distribution Expansion Project	2016	\$9.00
	The Project for Enhancement of Operation and Management of Cambodia Transmission System (TA)	2017	
	Phnom Penh City Transmission and Distribution System Expansion Project (Phase 2) (Stage II)	2018	\$84.23
KFW	Transmission Line (Takeo to Kampot)	2005	€12.20
	Grid Efficiency and Strengthening Project (TA)	2017	

Development Partner	Name of Project	Year Approved	Amount (million)
Energy sector			
NDF	Greater Mekong Subregion Transmission Project (cofinanced with ADB)	2003	€10.00
OFID	Medium-voltage Sub-Transmission Expansion Sector Project (cofinanced by ADB)	2012	\$10.00
USAID	Clean Power Asia Program (TA)	2016	\$16.00
World Bank	Rural Electrification and Transmission Project	2003	\$16.00
	Multi-Tier Framework international initiative under the Energy Sector Management Assistance Program		

ADB = Asian Development Bank; AFD = Agence Française de Développement; DFAT = Department of Foreign Affairs and Trade; EDC = Electricité du Cambodge; JICA = Japan International Cooperation Agency; NDF = Nordic Development Fund; OFID = OPEC Fund for International Development; REEs = rural electricity enterprises, TA = technical assistance, USAID = United States Agency for International Development.

Source: Asian Development Bank.

2. ADB funding has focused on projects to build high-voltage (230 kilovolt [kV] and 115 kV) and medium-voltage (22 kV) transmission lines to connect the isolated systems that supply most provincial towns and expand electricity access, the creation of a 230-kV backbone across the country, and capacity building for energy sector institutions. Recently, ADB has begun supporting the development of renewable energy generation, particularly solar, to assist Cambodia meet its growing demand while addressing its climate change targets. Export credit agencies from the People's Republic of China and the private sector have historically supported large generation projects. JICA, AFD, and KFW support expansion of medium- and high-voltage transmission lines. KFW also provides support to the Rural Electrification Fund for its rural electrification programs. In terms of technical assistance (TA), the World Bank has recently completed an energy access review, while JICA is supporting capacity development activities to strengthen transmission management and planning at Electricité du Cambodge (EDC), including training on power and transmission system planning software, dispatching, and procurement processes. AFD has commissioned a grid modernization study, and AFD and the government of Australia also continue to support the deployment of solar home systems for households in rural areas.

B. Institutional Arrangements and Processes for Development Coordination

3. Development partner coordination in the energy sector in Cambodia and throughout the Greater Mekong Subregion is facilitated by the Regional Power Trade Coordination Committee (RPTCC). Established in 2002, the RPTCC focuses on strengthening regional transmission networks, promoting cross-border investments in energy resources, and developing a regional electricity market in a phased manner. ADB, AFD, JICA, and the World Bank regularly participate in biannual RPTCC meetings, and ADB and the World Bank provide technical support to its two working groups (on regulatory issues, and performance standards and grid codes).¹ In 2017, development partners initiated an informal energy sector working group to facilitate greater coordination and technical discussion among partners in Cambodia. As of 2018, discussions are underway with the Ministry of Mines and Energy to create a formal technical working group co-chaired by the government.

¹ ADB. 2014. *Harmonizing the Greater Mekong Subregion Power Systems to Facilitate Regional Power Trade*. Manila (TA 8830-REG); ADB. 2007. *Technical Assistance for Facilitating Regional Power Trading and Environmentally Sustainable Development of Electricity Infrastructure in the Greater Mekong Subregion*. Manila (TA 6440-REG).

C. Achievements and Issues

4. Since 1999, ADB's assistance in the sector has primarily focused on grid expansion into rural areas. In recent years, ADB has also provided TA aimed at institutional strengthening and capacity building in the sector. ADB's current country partnership strategy (CPS) for Cambodia, 2014–2018 reflects the priorities in the Rectangular Strategy Phase III (2013–2018) and the National Strategic Development Plan, 2014–2018.² The CPS is focused on two strategic pillars: (i) rural-urban-regional linkages, and (ii) human and social development. Under the first strategic pillar, and in line with ADB's new Strategy 2030,³ ADB is adapting to the evolving requirements in the energy sector of Cambodia and is supporting the government in piloting large-scale solar power as a viable generation option. In February 2016, the government tendered a 10 megawatt (MW) solar plant at Bavet in Svay Rieng Province. The project, which is financed by ADB's private sector operations, was commissioned in October 2017.⁴ Following a solar photovoltaic grid integration study for EDC, ADB completed a nationwide solar generation master plan that includes impacts and recommended actions to prepare the grid for solar penetration scenarios of greater than 1,000 MW.⁵ The Support for a Sustainable Power Sector TA activity is scheduled for 2019 to help the government develop a comprehensive energy sector strategy and power development plan and provide related capacity development.⁶ The activity will also prepare a pipeline of investments, some of which may be considered for ADB financing under the CPS, 2019–2023, which is under development.

D. Summary and Recommendations

5. Affordable electricity tariffs are critical for achieving the government's goals of rural electrification and near-universal electricity access by 2030, and improving the country's economic competitiveness. EDC, with support from development partners, needs to continue to invest in transmission and distribution network expansion and connect more licensees to the grid, which will reduce the overall cost of supply and electricity tariffs for consumers. Continued financial support to rural electricity enterprises and households through the Rural Electrification Fund for distribution line extensions and household connections is crucial to increase access to electricity in rural areas. Meanwhile, given the ongoing reduction in renewable energy generation costs globally, and abundant renewable energy resources, Cambodia is well placed to integrate significant amounts of renewable energy, particularly solar, into its generation mix. Diversifying Cambodia's hydropower and coal base load supply by adding solar power would help lower the supply cost, and help implement national emission reductions targets.

6. ADB experience assisting EDC with the 10 MW solar power plant in Bavet, Svay Rieng province (footnote 4) and with prior transmission projects shows that EDC needs additional experience structuring transparent, competitive procurement for private sector-led power projects and negotiating contracts with private developers. ADB procurement support can help build technical capacity in EDC as well as an appreciation for the costs, operational requirements, and actual performance of solar photovoltaic plants.

² ADB. 2014. *Country Partnership Strategy: Cambodia, 2014–2018*. Manila; Government of Cambodia. 2013. *Rectangular Strategy Growth, Employment, Equity and Efficiency, Phase III of the Royal Government of Cambodia of the Fifth Legislature of the National Assembly*. Phnom Penh; Government of Cambodia, Ministry of Planning. 2014. *National Strategic Development Plan, 2014–2018*. Phnom Penh.

³ ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.

⁴ ADB. [Cambodia: Cambodia Solar Power Project](#).

⁵ ADB. 2018. *Cambodia Solar Master Plan, Final Report*. 10 June, currently under review by EDC for adoption; the national solar photovoltaic grid integration study was prepared by ADB on a confidential basis for EDC.

⁶ ADB. Regional. [Southeast Asia Energy Sector Development, Investment Planning and Capacity Building Facility](#).

7. It is also imperative that Cambodia develop a consolidated sector strategy and power development plan to help guide energy programs and investments across development partner portfolios and therefore enable more efficient coordination among partners.