

#### CAMBODIA NATIONAL SOLAR PARK PROGRAM

# Opportunities to Scale Up Economic and Market-Based Instruments to Address Air Pollution



Sustainable Financing for Nature Positive Investments: Tools for Integrating Economic and Market-Based Instruments into Projects The views expressed in this presentation are the views of the author/s and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy of the data included in this presentation and accepts no responsibility for any consequence of their use. The countries listed in this presentation do not imply any view on ADB's part as to sovereignty or independent status or necessarily conform to ADB's terminology.

## **Project Overview**



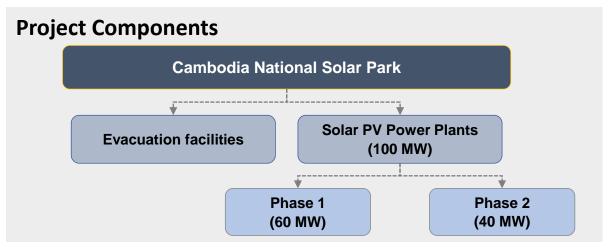
## ADB

#### **Development Context: Cambodia**

- 16 million people
- Lower-middle income country
- 20% combined annual power demand growth rate since 2004
- CO2 emissions of 0.44 metric tons per capita
- 18 percent of the country's total electricity supply was imported fossil-fuel energy
- Electricity shortage—nearly 5 million Cambodians lacked access to electricity
- High tariffs of US\$0.14 to US\$0.17 per kWh, well above those of regional counterparts, constrained economic competitiveness
- Unutilized excellent solar resources:
  - 10 MW solar PV installed capacity in Bavet

#### **Project Overview**

- Objective: Assist *Electricite Du Cambodge (EDC)* to set up a competitive national solar program for the country to exploit its abundant solar resources.
- The project consists on setting up a 100 MW solar PV power plan in Kampong Chnnang province.



## **ADB Role in Solar Energy in Cambodia**



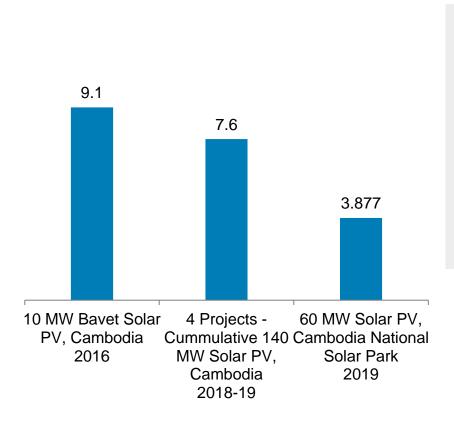


- 2016: ADB approved PSOD loan for the 10 MW Bavet Solar Power Project, the first utility-scale solar project in Cambodia (OCR, CFPS, B loan) including concessional funding
- 2017: ADB developed a preliminary national solar PV grid integration study and roadmap for EDC identifying the need for a large-scale solar park to promote solar
- 2019: ADB approved sovereign loan to financed the evacuation facilities for the 100 MW (AC) Cambodia National Solar Park Project
- 2019: ADB supported a competitive reverse auction tender to procure the first 60 MW (AC) of solar power. 26 bid are received. Phase 1 is awarded to Prime Road Alternatives Inc in 2019 and reaches financial close in 2021 with PSOD financing.
- 2021: Phase 2 is tendered with ADB support and 14 bids are received

## **Development Impact**







#### **Financial**

- Lowest tariff for solar PV in ASEAN at time of bidding, allowing EDC to save \$81 million<sup>1</sup>
- Demonstrated attractiveness to international investors even during COVID-19 pandemic

#### Regional

Demonstration effect

Note:

1. Calculated as the difference in price agreed in comparable solar projects implemented in Cambodia during 2019 and 3.877 US\$c / kwh multiplied by energy produced by phase 1

## **Key Success Factors**





**Competitive Bidding** 

Land identification and acquisition

**Bankable PPA** 

Credible international advisors



#### **Ferran Vila Planas**

PPP Specialist, Office of Public-Private Partnership

fvilaplanas@adb.org

