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Private Sector Case Studies: Cambodia Solar Park Project
RPTCC-29 Coordination Committee Discussions

6 July 2022



Project Overview

Background

- ▶ ADB worked with Electricite Du Cambodge (EDC), to develop National Solar Park (“the Project”) to procure up to 100 MW of solar PV power generation from the private sector through competitive tendering.
- ▶ The Project demonstrated the ability of large-scale solar to improve the electricity supply and stability of the national grid, substitute power imports, reduce reliance on fossil-fuel and complement hydropower generation.

Phase I

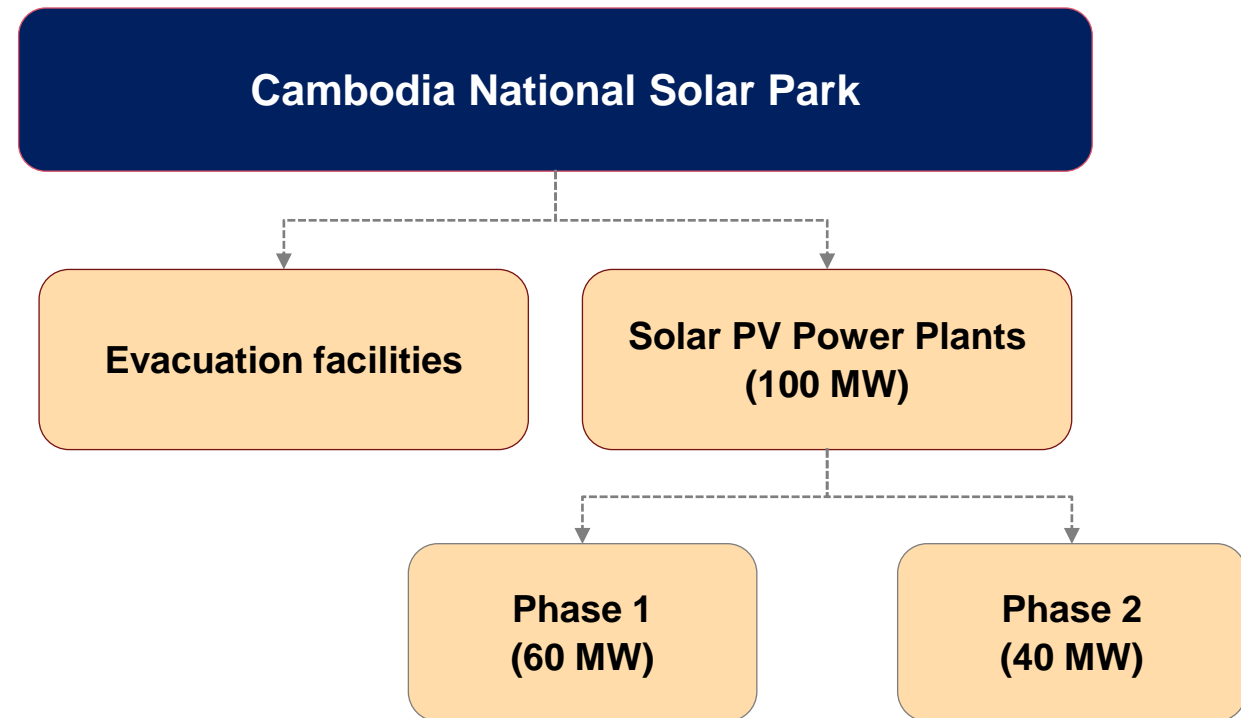
- ▶ The Project scope included design, finance, construction, operation and maintenance of **60MW** solar PV power plants for 20 years and the site is within the national solar park located 60-70km from Phnom Penh
- ▶ EDC provided land, substation, transmission lines to connect to grid and battery storage and grant 20-year PPA through competitive bidding

Phase II

- ▶ The Project scope included design, finance, construction, operation and maintenance of **40MW** solar PV power plants for 20 years and the site is adjacent to the site for phase I

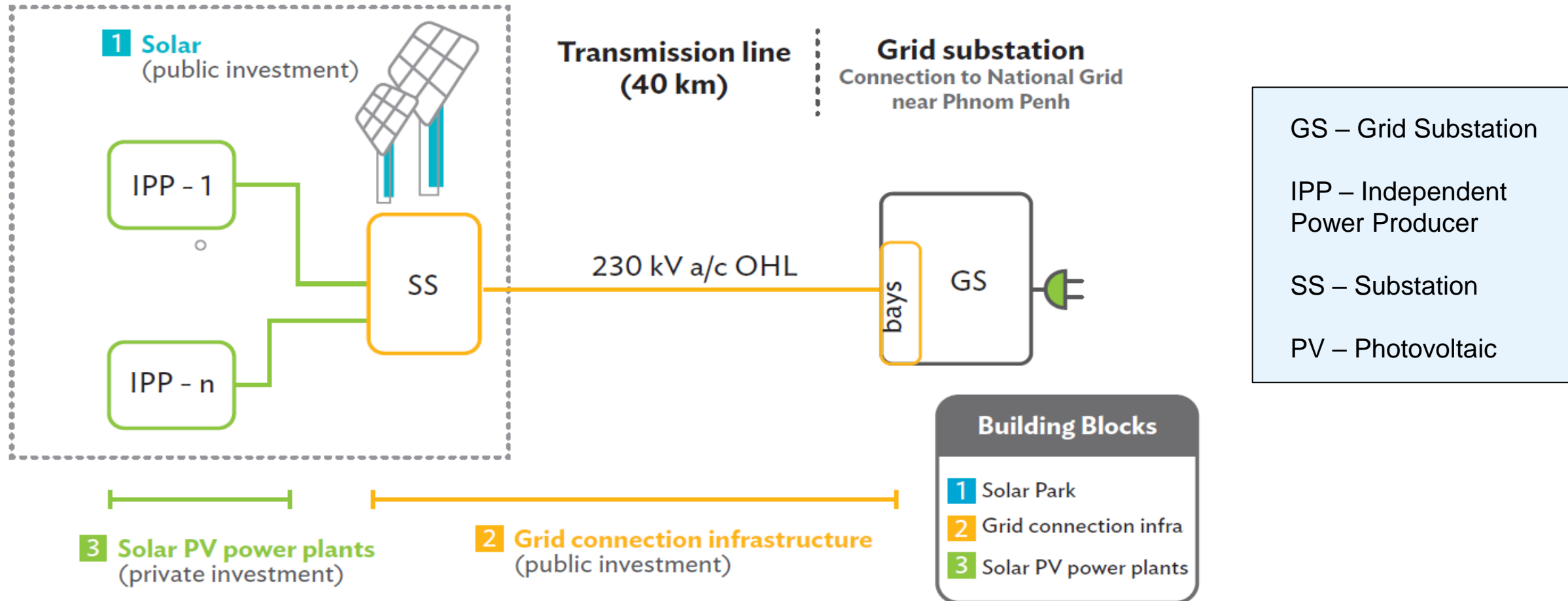
Project Background and Description: The Cambodia National Solar Park has a total capacity of 100 MW and it aims to incentivize the development of solar energy in Cambodia.

Project Components



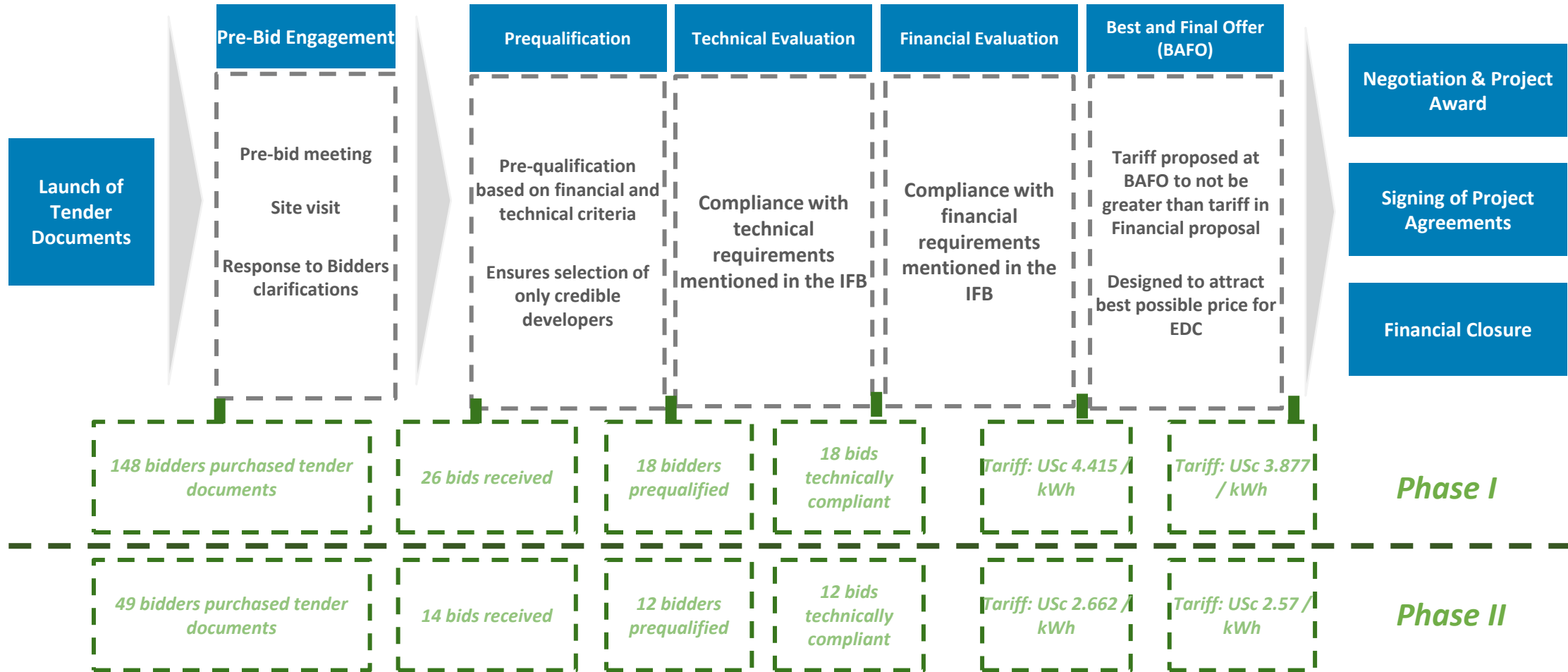
Project Overview (cont'd)

The park was structured with a clear demarcation between the public and private sector investment components



Solar PV Power Plants: Process

Evaluation Process



Pre-bid Meeting



Site Visit



Public Opening of Financial Proposals



Public Opening of BAFO

Solar PV Power Plants: Results

Financial

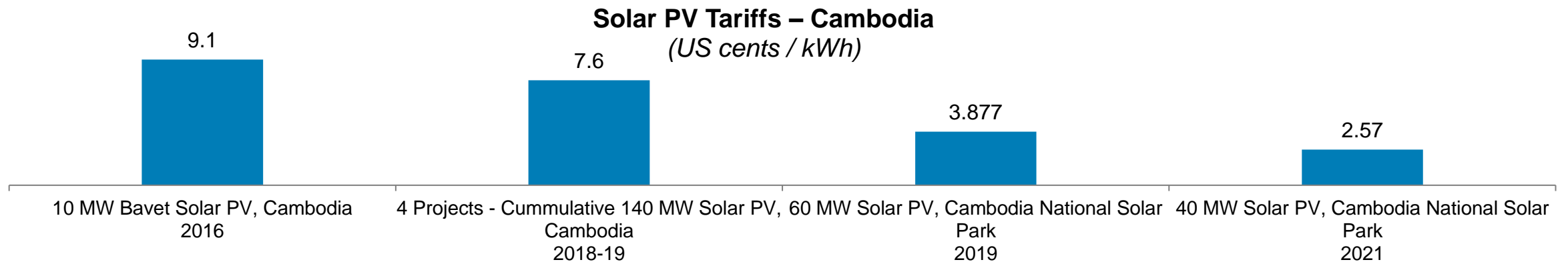
- Lowest tariff for solar PV in ASEAN at time of bidding, allowing EDC to save c.\$150 million
- Showcased Cambodia as an attractive investment destination even during COVID-19 pandemic

Development of Solar Sector

- Strategy to procure solar energy
- Other solar PV projects implemented in Cambodia

Regional

- Demonstration effect



Attracting Private Capital

- Objective: Attract operators with capital and technical know-how
- Limited presence of solar investors in Cambodia
- Attract international players: Cambodia was competing with
 - Countries with a better track record implementing solar projects and
 - Countries with better credit ratings

**Competitive
Bidding**

**Land
identification
and acquisition**

Bankable PPA

**Credible
international
advisors**

Procurement Modality

Competitive Bidding

- Private capital committed to solar projects greatly exceeds well-structured solar projects
- Transparent and well-managed competitive processes (auctions) are likely to result in lower prices and better conditions for buyer of power
 - Feed-in tariffs
 - Bilateral negotiations
- Impact on implementation timeline
- Ensure desired type of investors are comfortable with key parameters

Scope of Responsibilities

Land identification and acquisition

- Only international bidders could guarantee the right level of technical skills and efficiency
- International bidders have a competitive disadvantage to identify and acquire a suitable site
- Land identification and acquisition conducted by public sector
- Simplify scope of works to increase universe of potential bidders (transmission line)
- Impact on implementation timeline

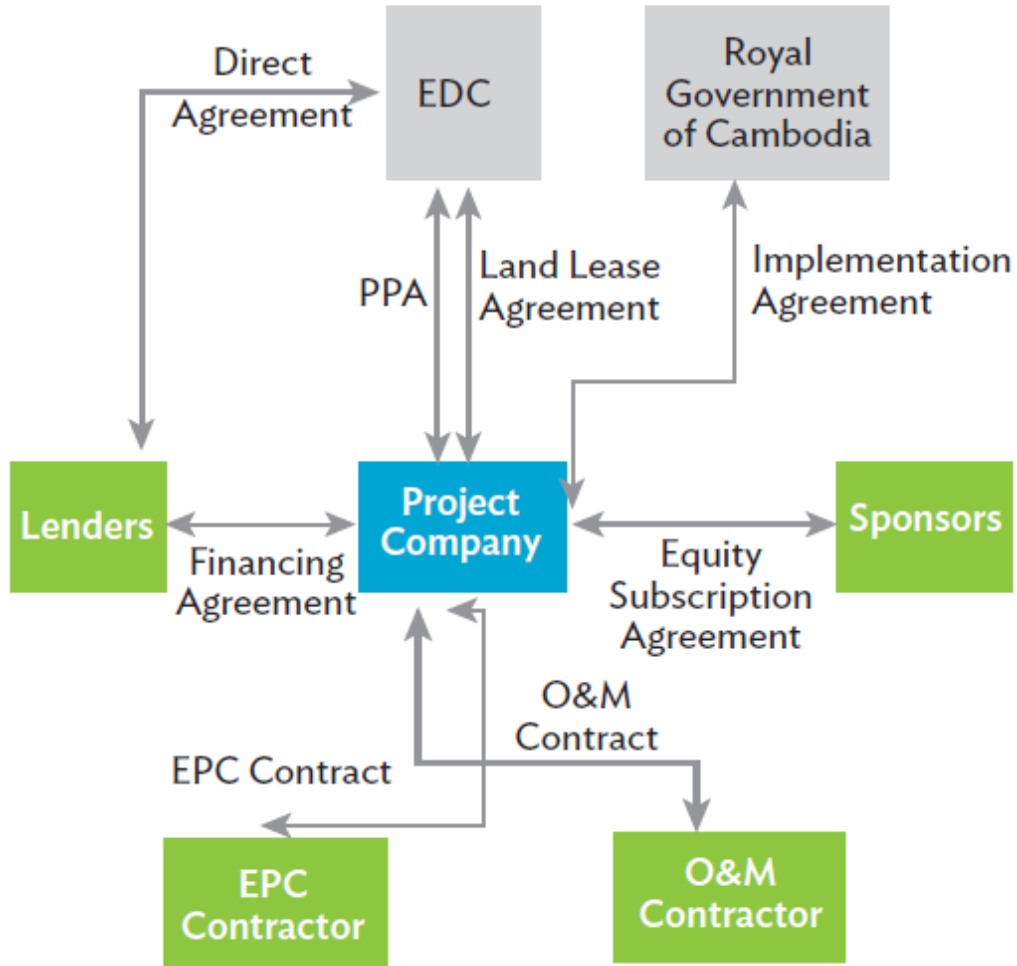
Bankable PPA

Bankable PPA

- Support bidders
 - Large number of solar projects
 - Limited business development budgets
- Importance to utilize “standard” provisions in key project contracts
 - Maximize interest from potential bidders
 - Ensure interest from lenders and limit problems downstream
- Custom made approach: Sovereign risk
 - Lenders: a key stakeholder
- Impact on implementation timeline

Standard Structure

Contract Structure



Risk Allocation Framework

Key Risk	Primary Risk Allocation	
	Project Company	EDC
Delay in Financial Closure	✓	✗
Design Risk	✓	✗
Construction Risk	✓	✗
Project Cost Overrun	✓	✗
Operation Risk	✓	✗
Change in Law/ Political Risk	✗	✓
Off-taker Risk Even	✗	✓
Solar Irradiation Risk	✓	✗
Obtaining and Maintaining Permits	✓	✗
Access to Grid	✗	✓
Provision of Land	✗	✓

Credible Process

Credible process and advisors

- Transparency
- Signal commitment to project implementation



Thank you for the attention

6 April 2022

