

West Bank Solar Project

Main features

Discussion of Challenges & Way forward



September 6th, 2018

Project Background

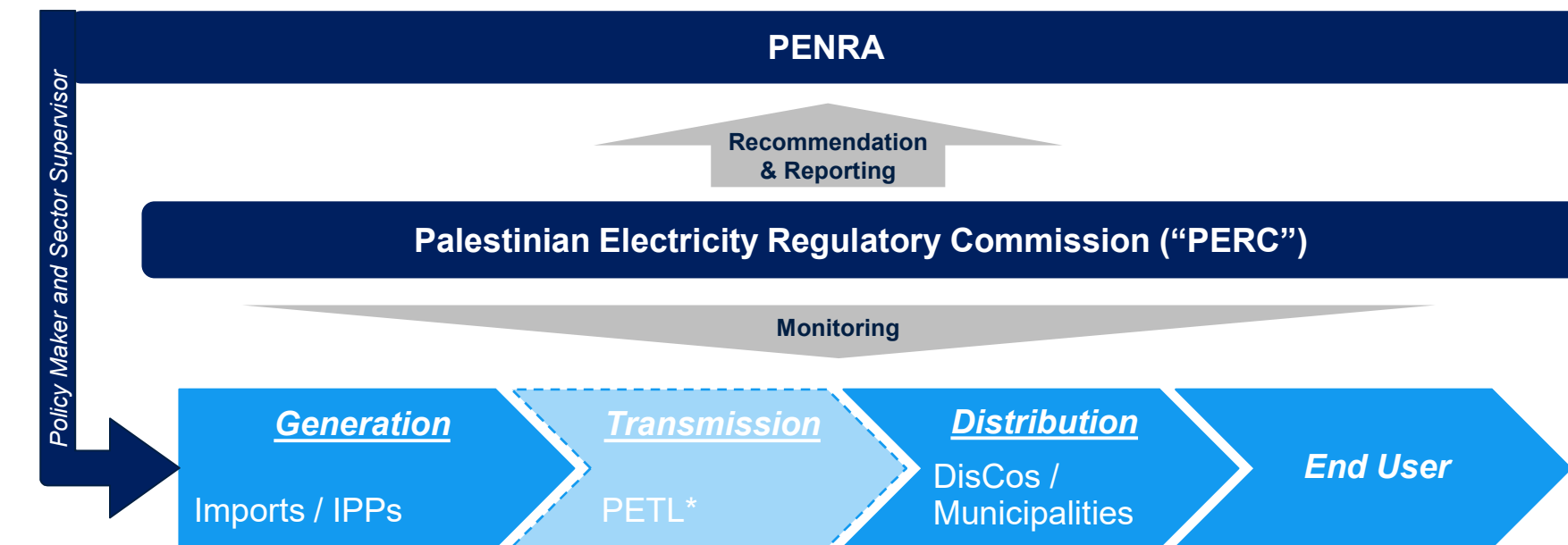
Government Objectives

- The Palestinian Authority (“PA”) represented by the Palestinian Energy and Natural Resources Authority (“PENRA”) aims to:
 - i. Improve *energy security* by diversifying its sources of electricity and reducing the country’s dependence on imported power supply;
 - ii. Increase the use of *renewable energy* to increase the share of clean power in the overall energy mix of the country; and
 - iii. Attract *Private Sector* Participation (“PSP”) to the renewable energy sector.
- To achieve these objectives, PENRA and the Palestinian Electricity Transmission Ltd. (“PETL”) are looking to explore PSP options and tender competitively for the construction and operation of 3-4 solar PV power plants, each with a capacity ranging between 5-30MW (the “Project”).

IFC Role

- In Nov. 2017, IFC was appointed by PENRA as Lead Transaction Advisor to attract PSP for the Project;
- To date, 4 potential sites have been identified, with a cumulative capacity of 20MW;
- Due diligence is underway and the Transaction’s legal documents are being prepared.

Stakeholders Mapping – Institutional Setup



Israel Electric Corporation ("IEC")

- Exports electricity to DisCos/Municipalities; and
- Controls HV electricity network (Grid impact study needs to be cleared with IEC).

* Electricity is currently purchased directly by DisCos/municipalities from IEC as PETL is not fully operational yet

Legal Framework

2015 Renewable Energy (“RE”) and Energy Efficiency Law:

- The law aims at attaining not less than 130 MW from different RE sources until the year 2020 and provides a mechanism for RE development through (i) direct; and (ii) competitive tenders;
- Competitive and direct tender projects are subject to a ceiling tariff and granted a 20 year Power Purchase Agreement (“PPA”):
 - The PPA won by competitive bid should be “the least price among competitive projects and up to a ceiling of not more than 90% of the average purchase price of traditional energy sources”.
 - Current average purchase price is 0.359 NIS/kWh (0.093 USD/kWh) resulting in a ceiling tariff of 0.3231 NIS/kWh (0.084 USD/kWh);
- It sets PETL as Single Buyer and allows it to purchase energy from renewable sources.

Main Challenges

1. Site Identification:

- Land Constraints (Areas A, B & C) – small plots and uneven terrain;
- No network interconnection (Islands) and IEC should transfer to PETL assets;

2. PETL:

- Unclear timeline for full operationalization (substations, assets transfer & PPA signing with IEC);
- Credit worthiness (no assets on its balance sheet & direct deals b/w DisCos and generation)
 - No clarity whether MoF can provide payment / termination guarantees or municipalities can set aside end-user electricity revenues in Escrow Accounts.

3. Unclear Strategy:

- Direct deals are being signed (in parallel to tenders) b/w DisCos and developers with different versions of PPA, tariffs, etc.

■ This all culminates into a questionable bankability for developers due to:

- Political risk and the need to clarify exact timeline for operationalization of PETL;
- Small size of the project reduces economies of scale;
- Tariff ceiling set by law is quite low in view of Project risks; and
- Creditworthiness of the off-taker.

How to unlock solar potential?

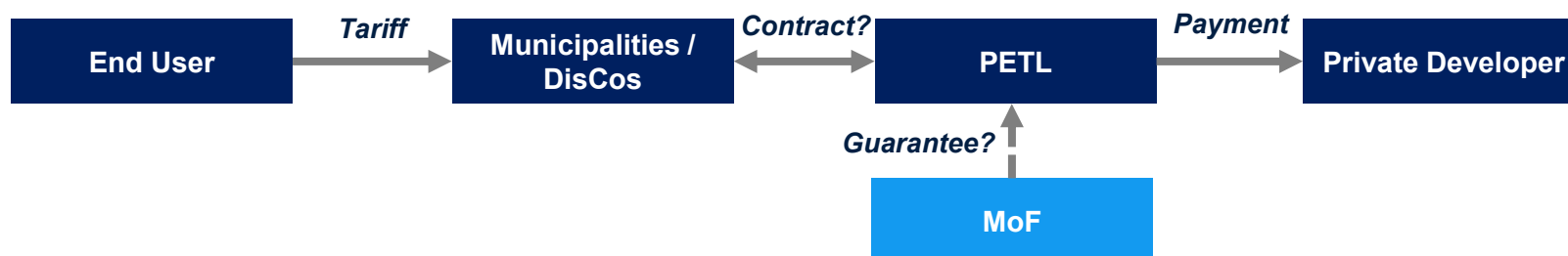
- Developers require clarity regarding:
 - The **operationalization of PETL** as the Single Buyer and Off-taker;
 - The status of negotiations between the PA and the IEC for the establishment of a single bulk tariff and the handover of the electrical grid assets to PETL;
 - The **contractual relationship between the municipalities/DisCos and PETL** going forward, especially with the delay in PETL operationalization;
 - **IEC approvals** required to develop and operate the Project. A list of steps should be clarified for the developers that are not familiar with the area, especially if PETL is still not operational by the time the Project is tendered.

Tariff Ceiling vis-à-vis Project Size

- Developers have noted the aggressive PV solar tariff ceiling as required by the 2015 RE law (currently 0.084 USD/kWh) especially in view of the lack of economies of scale for this small Project;
- If the law / ceiling imposed on tariffs (90% of the average purchase price of traditional energy sources) cannot be amended, some form of capital subsidy (funded by a grant, Viability Gap Funding or a concessional finance) will most likely need to be provide;
- Extending the PPA term to 25 years can help reduce the tariff.

Credit Worthiness of PETL/Municipalities

- According to the RE law, PETL will act as the single buyer of electricity, however, municipalities collect electricity payments from the end users;



- Some form of ring-fencing of the end-user tariffs collected by Municipalities/DisCos should be implemented. This can be done via pooling the collections into an Escrow Account from which PETL can directly pay the private developer;
- Possible additional credit enhancement tools:
 1. A Partial Risk Guarantee (“PRG”) provided by the World Bank or other IFIs to cover payment risk;
 2. A Political Risk Insurance (“PRI”) from the Multilateral Investment Guarantee Agency (“MIGA”) to cover Termination Payment Risk in case of breach of contract;
 3. Capital Subsidy from international donors / other entities to reduce capex and risk.