



The World Bank

West Bank and Gaza Electricity Sector Performance Improvement Project (P148600)

REPORT NO.: RES45913

RESTRUCTURING PAPER
ON A
PROPOSED PROJECT RESTRUCTURING
OF
WEST BANK AND GAZA ELECTRICITY SECTOR PERFORMANCE IMPROVEMENT PROJECT
APPROVED ON JULY 27, 2017
TO
PALESTINIAN LIBERATION ORGANIZATION (FOR THE BENEFIT OF THE PALESTINIAN AUTHORITY)

ENERGY & EXTRACTIVES

MIDDLE EAST AND NORTH AFRICA

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ABBREVIATIONS AND ACRONYMS

AMI	Advanced Metering Infrastructure
CMS	Commercial Management System
DISCOs	Distribution Companies
ESMF	Environmental and Social Management Framework
GEDCO	Gaza Electricity Distribution Company Ltd.
IMS	Incidence Management System
MIS	Management Information System
PA	Palestinian Authority
PENRA	Palestinian Energy and Natural Resources Authority
PERC	Palestinian Electricity Regulatory Council
PETL	Palestinian Electricity Transmission Company Ltd.
PLO	Palestinian Liberation Organization
PMU	Project Management Unit
RPP	Revenue Protection Program
TOR	Terms of Reference
TSO	Transmission System Operator



BASIC DATA

Product Information

Project ID P148600	Financing Instrument Investment Project Financing
Original EA Category Partial Assessment (B)	Current EA Category Partial Assessment (B)
Approval Date 27-Jul-2017	Current Closing Date 20-Dec-2023

Organizations

Borrower Palestinian Liberation Organization (for the Benefit of the Palestinian Authority)	Responsible Agency Palestinian Energy and Natural Resources Authority (PENRA)
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Project Development Objective (PDO)

Original PDO

The Project Development Objective is to enhance institutional capacity of the energy sector, improve efficiency of the distribution system in targeted areas, and pilot a new business model for solar energy service delivery in Gaza.

Current PDO

The Project Development Objective is to improve operational performance of electricity sector institutions, and pilot a new business model for solar energy in Gaza.

Summary Status of Financing (US\$, Millions)

Ln/Cr/Tf	Approval	Signing	Effectiveness	Closing	Net Commitment	Disbursed	Undisbursed
TF-A9136	28-Feb-2019	10-Mar-2019	11-Jun-2019	30-Jun-2022	7.00	.61	6.39
TF-A9139	28-Feb-2019	10-Mar-2019	11-Jun-2019	20-Dec-2023	5.00	.35	4.65
TF-A5065	06-Nov-2017	06-Nov-2017	16-Jan-2018	30-Jun-2022	4.00	.50	3.50



TF-A5078 06-Nov-2017 06-Nov-2017 16-Jan-2018 30-Jun-2022 7.00 3.57 3.43

Policy Waiver(s)

Does this restructuring trigger the need for any policy waiver(s)?

No

I. PROJECT STATUS AND RATIONALE FOR RESTRUCTURING

A. PROJECT STATUS

1. Electricity Sector Performance Improvement Project (P148600 - ESPIPP) was approved and became effective on July 2017 and January 2018, respectively. On December 14, 2018, an Additional Financing was approved by increasing the total amount of the Project to US\$ 23 million (original amount of \$US11 million) and the official closing date to December 20, 2023 (original official closing date June 30, 2022). The Project Development Objective (PDO) was to enhance institutional capacity of the energy sector, improve efficiency of the distribution system in targeted areas, and pilot a new business model for solar energy service delivery in Gaza. to improve operational performance of electricity sector institutions, and pilot a new business model for solar energy in Gaza. It has four (4) components: (i) Component 1: Strengthening the Capacity of Palestinian Electricity Sector Institutions, PETL and PERC; (ii) Component 2: Improving the Operational Performance of Palestinian DISCOs; (iii) Component 3: Improving Energy Security in Gaza with Solar Energy; and iv) Technical Assistance, Capacity Building and Project Management.
2. As per the last Implementation Support and Results Report, dated 23 December 2020, dated 23 December 2020, ESPIP was rated Satisfactory and Moderately Satisfactory for *Progress towards achievement of PDO* and *Overall Implementation Progress*, respectively. The ratings for Financial Management and Procurement are Satisfactory and Moderately Satisfactory, respectively. The Environmental and Social safeguards risk rating continues to be moderate.
3. As of April 5, 2021, the project has disbursed US\$5.02 million (21.84 percent of the total project financing) and committed US\$5.74 million (25 percent of the total project financing). Procurement process is ongoing for a further US\$10 million. Despite implementation challenges and delays experienced by the project, it is expected that implementation of the four components will accelerate and over on or about 90 percent of the total project financing will be committed in FY21. COVID-19 pandemic restrictions and impacts are affecting activities involving stakeholder engagement required under ESF; supply of equipment manufactured in COVID-19 affected countries construction works and consulting assignments by foreign companies. The impact is relatively limited, and the loss of time of the lockdowns is likely to be mitigated through accelerated implementation. The following paragraphs summarize the progress status of each component.
4. **Component 1. Strengthening the Capacity of Palestinian Electricity Sector Institutions, PETL and PERC (US\$5.2 million):** As part of capacity support, the project had financed salaries and operational expenditure of PETL for one year. The project has also procured testing and commissioning equipment for PETL and server rooms, to support the operation of HV sub-stations and continues to procure spare parts and components for ongoing operation and maintenance. Three main activities are ongoing within this component:



- a. **Supply of the equipment for upgrading connection points:** The bidding process is underway with bids received in March-end. The first procurement process was declared inconclusive and was re-launched with new technical specifications (TORs). The potential signed contract is expected in June 2021
 - b. **Supply of spare parts for HV sub-stations,** the first contract for the switch gear was signed on September 10, 2020 and further equipment may be purchased under the project scope, on needs-basis
 - c. **Technical Assistance to PETL and PERC:** An individual expert consultant has been recruited to provide continued technical support to PETL and an Expression of Interest for recruitment of a firm for preparation of *PETL Masterplan* has been launched; and TOR to support PERC with a *Tariff Study* was finalized and approved. However, as another development partner has offered to include the tariff study as part of the overall program for capacity development support to PERC, as this was a minor activity with no direct impact on PDO, it is being dropped during this restructuring.
5. **Component 2. Improving the Operational Performance of Palestinian DISCOs (US\$10.3 million) two activities are ongoing within this component:**
- a. **Revenue Protection Program (RPP)** (US\$5.4 million): The bidding process for the RPP package for all 6 DISCOs was completed, the contract signed on June 28, 2020 and delivery of equipment expected in March 2021; and
 - b. **Management Information Systems (MIS)** (US\$4.9 million) for the 6 DISCOs in the West Bank & Gaza. The bidding process for the MIS systems has been divided in two parts : (i) The contract for the systems in the West Bank, which is expected to be signed in April 2021; (ii) the bidding process for the MIS for Gaza DISCO shall be carried out separately and is expected to be launched in August 2021, to allow relevant recommendations emerging from an ongoing EU-funded institutional and financial audit to be included in the system design.
6. **Component 3. Improving Energy Security in Gaza with Solar Energy (US\$5.8 million)** includes two ongoing activities:
- a. **Pilot Solar revolving fund for households and small & medium enterprises** (HH and SMEs) (US\$3.5 million). The first stage of this pilot started, with procurement of 84 Solar PV systems of size 2.5KWp, 3KWp and 5KWp, in May 2020. Unfortunately, this has been severely impacted by the economic crisis in Gaza strip in 2018-19, which is severely exacerbated by the COVID-19 pandemic in 2020. Out of these, only seven (7) systems were installed and are in operation. Additional 15 beneficiaries have been identified by PENRA. GEDCO and PENRA are continuing the advertising to invite more HH and SME beneficiaries. Owing to urgent needs emerging from the COVID-19 pandemic, solar PV systems procured for HH and SMEs are being deployed to support 12 health clinics and schools, as part of this restructuring. A lesson learned report from the first stage of the pilot for revolving fund has been prepared.
 - b. **Solar for health facilities** (US\$2.3 million). The contract for the 3 health clinics in Gaza was signed on September 20, 2020, and the systems have been installed in March 2021, after significant delay due to COVID-19 related lockdowns. The solar PV installation at Nasser hospital is being dropped from this project as the hospital complex is utilizing the land for construction of a much-needed new hospital wing. These funds have been re-deployed towards additional health clinics. The procurement process for 13 health clinics is underway with bid invitation issued in mid-December 2020 and award expected by May 31, 2021.
7. **Component 4. Technical Assistance, Capacity Building and Project Management:** This component is under implementation. This includes strengthening systems in PENRA and supporting costs of the PMU in Ramallah and Gaza. PENRA has recruited the following: a dedicated Environmental & Social Safeguards Specialist, and a Procurement Quality Assurance Consultant. In addition, the PMU continues to provide specific technical expertise and consultancy support to PENRA's staff in Gaza.

B. RATIONALE FOR RESTRUCTURING



8. This proposed restructuring is based on (a) the lessons learned from the initial implementation of the pilot solar revolving fund in Gaza and (b) procurement of Management Information System (MIS) systems for the five West Bank DISCOs.
9. *Lessons Learned under the Pilot Solar Revolving Fund for households and SMEs.* This pilot was launched by PENRA-GEDCO in Gaza on October 11, 2018. The first Lessons Learned Report has been prepared in December 2020, highlights are included below. As the revolving fund was a new business model, previously untested in the region, it was decided to begin with a small first round, with only 100 solar PV kits, to be offered in Gaza strip. This was intended to test the market given many of the anticipated risks given the overall socio-economic fragility. The original design of the revolving fund has not worked, and the number of systems installed to date are far behind the Project's expected targets for installed solar PV systems in households and SMEs. A summary of the findings, which also provides rationale for reducing scope of the revolving fund is given below.
 - (i) Originally, the pilot's focus was on finding qualified residential and SME consumers who receive rooftop solar systems who would pay back the cost in monthly installments until the system is paid off. The initial-set of target beneficiaries were salaried staff, as the revolving fund mechanism sought to utilize a cash-less approach, wherein all financial transactions take place through banking systems with direct deductions from salary account. As of 2019, a host of unanticipated challenges emerged including severe financial constraints faced by major employers leading to widespread layoffs, non-payment of salaries and other issues directly affecting salaried employees. Even as the project undertook extensive marketing and promotion, in partnership with key Banks and employers, the response was muted. The limited response was further discouraged by the complexity of the application process and the inherent delay in receiving their PV systems. The cost of systems offered through the program was also higher than local market due to stricter quality measures. The project also excluded potential beneficiaries who held salary accounts in locally operated banks. Due to the challenging economic situation in Gaza, even before the COVID-19 pandemic, not many families (households) could afford the proposed systems at the current financing plan of 60 installments at 0% interest. This test stage included only three small (3) kits (2.5KWp, 3KWp and 5KWp) and, market response trend indicates that the beneficiaries were more driven by the price than the actual capacity or quality of the systems, considering that less expensive system could be easily purchased at local shops.
 - (ii) The public sector salaries reduction specially in Gaza in response to the limited domestic and clearance revenue collection in 2019, the drastic COVID-19 movement restrictions in Palestine in 2020, the increasing unemployment rate in Gaza (about 48.5 percent) are among the main causes that impact negatively the implementation of this specific activity and limit the applicability of the original revolving fund business model. Given the continued pandemic and socio-economic crisis, even with best efforts by PENRA, it is unlikely that the original targets can be met by the Project's closing date. The PAD had already noted this possibility and suggested that restructuring of this sub-component may be needed if the politico-economic situation in Gaza was to further deteriorate.
 - (iii) Furthermore, in response to the COVID-19 pandemic and the urgent need for electricity supply in health clinics, PENRA is currently in the process of re-purposing seven kits to provide solar PV solution for five clinics. And, given the limited lifespan of some materials (particularly warranty on batteries) already stored in warehouse, PENRA, based on previous WB recommendations, is proceeding with installing Solar PV systems in schools.
10. *Procurement of Management Information System (MIS) systems for the five West Bank DISCOs:* The project is supporting the deployment of MIS in the six DISCOs to facilitate harmonization across the electricity sector. The five DISCOs in the West Bank are included in one procurement package and the DISCO in Gaza will be included in a subsequent dedicated procurement. The procurement process was completed in January 2021 and the final price quoted by the lowest qualified bidder is approx. US\$8 million, whereas the initial budget estimate was approx. US\$4.9 million. Based on an assessment conducted by PENRA, and independently confirmed by Bank team, the following reasons for the significant price difference were identified:



- (i) Initial Cost estimates were prepared assuming:
 - All the five Discos incorporate customer-related information systems: CMS (commercial) and IRMS (incidents recording and management system)
 - JDECO, HEPCO and NEDCO would continue using their existing Enterprise Resource Planning (ERP), with minimum upgrades, for management of corporate resources, while the other two would incorporate new ERP.
 - Maintenance services from year 2 (end of warranty period) excluded in scope of contract to be financed by WB.
 - (ii) During the preparation of the project and the procurement package, a preliminary assessment of existing ERP at JDECO, HEPCO and NEDCO was conducted to identify upgrades eventually needed to have in place all modules and functionalities identified for ERP for the other 2 DISCOs. As equally detailed information on all five DISCOs was unavailable, it was decided that PENRA and DISCOs include in scope of the bid the incorporation of new ERP for all the 5 DISCOs. And make a decision on scope of contract once the bids were received and evaluated. While this approach was agreed upon, the cost estimates were not modified.
 - (iii) During procurement, the large gaps between modules and functionalities specified for ERP in the bidding documents and those currently available at JDECO, HEPCO and NEDCO were identified. This fully justifies the proposed extended scope, to provide new ERP for those 3 DISCOs (i.e., new ERP for all 5 DISCOs).
 - (iv) Owing to increased scope of work from the one considered in the initial cost estimates, the increased cost of MIS is fully justified as per PENRA's analysis and confirmed by Bank's experts. Moreover, the Bank team independently assessed that the quoted price of MIS for 5 DISCOs in this tender is comparable with the similar procurements carried out recently under Bank financed projects in other countries.
 - (v) This increased focus on MIS is also fully justified from the perspective of achieving project outcome of 'improving operational performance of distribution companies (DISCOs)' and ensuring sustainability of the systems during initial years. Ensuring that all DISCOs have uniform modules and functionalities of ERP is important to enable harmonization of MIS system, as it will facilitate uniform reporting and tracking of key performance indicators across the DISCOs.
11. No Interim Financial Reports or audits are overdue. There are no changes in safeguards category resulting from the proposed changes in this restructuring and no triggering of new safeguards policies. Bank safeguards policies have been complied with under the cleared safeguards instruments, and Project's safeguards performance is rated Satisfactory and recently Moderately Satisfactory due to the need to strengthen environmental monitoring during implementation. All other legal covenants have been complied with. The task team confirms that, (i) the PDO remains achievable; (ii) the performance of the Borrower remains satisfactory; (iii) the Bank and the Borrower agree on actions that will be undertaken to complete the Project on time; and (iv) the Project is not subject to suspension of disbursements.

II. DESCRIPTION OF PROPOSED CHANGES

12. In view of the lessons learned from the continuing challenges faced by the pilot revolving fund for solar PV systems in Gaza strip and the newly identified financing gap for procurement of MIS for the DISCOs, the following changes are proposed in the project. This remains aligned with the project development objective and will enable the project to continue with the implementation.
13. Modification of Results Framework
- (i) Modifying targets for the Solar PV revolving fund



- Installed solar PV systems (Number) from reduced from 800 to 200
- Installed solar PV systems for SMEs (Number) reduced from 250 to 50
- Installed solar PV systems in female-headed households and SMEs (Number) reduced from 100 to 15
- (ii) Increasing support for Health Facilities
 - Installed solar PV systems in health facilities (Number) from 4 to 19
- (iii) Adding support for schools to the scope of component 3
 - Installed solar PV systems in schools (number) added for 7

14. Changes in Components and Costs

- (i) US\$0.2 million from Component 1 to Component 2 of the project, hence reducing the total budget of Component 1 to US\$5 million from US\$5.2 million.
- (ii) US\$2.7 million from Component 3 to the Component 2 of the Project, hence reducing the total budget of Component 3 to US\$3.1 million against the original budget of \$US 5.8 million.

15. Reallocation between disbursement categories: The ESPIP Parent and Additional Finance is implemented through four grant agreements. Only one of the Grant Agreements (TFA05065) is being amended to merge the disbursement categories, enabling all components (1, 2, 3, 4) to be financed through one disbursement category. There are no other changes.

16. There are no other changes to the project.

III. SUMMARY OF CHANGES

	Changed	Not Changed
Results Framework	✓	
Components and Cost	✓	
Reallocation between Disbursement Categories	✓	
Implementing Agency		✓
DDO Status		✓
Project's Development Objectives		✓
PBCs		✓
Loan Closing Date(s)		✓
Cancellations Proposed		✓
Disbursements Arrangements		✓
Disbursement Estimates		✓



Overall Risk Rating		✓
Safeguard Policies Triggered		✓
EA category		✓
Legal Covenants		✓
Institutional Arrangements		✓
Financial Management		✓
Procurement		✓
Implementation Schedule		✓
Other Change(s)		✓
Economic and Financial Analysis		✓
Technical Analysis		✓
Social Analysis		✓
Environmental Analysis		✓

IV. DETAILED CHANGE(S)

COMPONENTS

Current Component Name	Current Cost (US\$M)	Action	Proposed Component Name	Proposed Cost (US\$M)
Component 1 - Strengthening the Capacity of Palestinian Electricity Sector Institutions, PETL and PERC	5.20	Revised	Component 1 - Strengthening the Capacity of Palestinian Electricity Sector Institutions, PETL and PERC	5.00
Component 2 - Improving the operational performance of Palestinian electricity Distribution Companies (DISCOs)	10.30	Revised	Component 2 - Improving the operational performance of Palestinian electricity Distribution Companies (DISCOs)	13.20
Component 3 - Improving Energy Security in Gaza with Solar Energy	5.80	Revised	Component 3 - Improving Energy Security in Gaza with Solar Energy	3.10
Component 4 - Technical Assistance, Capacity Building, and Project Management	1.70	No Change	Component 4 - Technical Assistance, Capacity Building, and Project Management	1.70



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TOTAL		23.00				23.00
REALLOCATION BETWEEN DISBURSEMENT CATEGORIES						
Current Allocation	Actuals + Committed	Proposed Allocation	Financing % (Type Total)			
			Current	Proposed		
TF-A5065-001 Currency: USD						
iLap Category Sequence No: 1	Current Expenditure Category: G, NCS, CS, T P1&2&3&4					
2,000,000.00	0.00	4,000,000.00	100.00	100.00		
iLap Category Sequence No: 2	Current Expenditure Category: G, NCS, CS, T P3					
2,000,000.00	0.00	0.00	100.00	0		
Total	4,000,000.00	0.00	4,000,000.00			



Results framework

COUNTRY: West Bank and Gaza

West Bank and Gaza Electricity Sector Performance Improvement Project

Project Development Objectives(s)

The Project Development Objective is to improve operational performance of electricity sector institutions, and pilot a new business model for solar energy in Gaza.

Project Development Objective Indicators by Objectives/ Outcomes

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Improve operational performance of Electricity Sector Institutions				
PETL collection rate (Percentage)		0.00	50.00	90.00
Electricity losses per year in West Bank DISCOs (Percentage)		23.00	22.00	19.00
Pilot a new business model for solar energy in Gaza (Action: This Objective has been Revised)				
Lessons learned report (Number)		0.00	2.00	3.00
Action: This indicator has been Revised				
Total installed rooftop solar PV systems (Number)		0.00	50.00	150.00
Action: This indicator has been Revised				
Installed solar PV systems for SMEs (Number)		0.00	15.00	50.00
Action: This indicator has been Revised				
Installed solar PV systems in female headed households and SMEs (Number)		0.00	10.00	15.00
Action: This indicator has been Revised				



Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Component 1 - Strengthening the Capacity of Palestinian Electricity Sector Institutions, PETL and PERC				
Number of electricity connection points metered (Number)		0.00	30.00	50.00
<i>Action: This indicator has been Revised</i>				
Number of audits completed by PERC (Number)		0.00		2.00
Component 2 - Improving the operational performance of Palestinian electricity Distribution Companies (DISCOs)				
Number of Smart meters installed (Number)		0.00	9,000.00	16,700.00
<i>Action: This indicator has been Revised</i>				
Number of DISCOs with fully operational Management Information Systems (Number)		0.00	4.00	5.00
<i>Action: This indicator has been Revised</i>				
Component 3 - Improving Energy Security in Gaza with Solar Energy				
Rate of response to grievances received related to the project (Percentage)		0.00		100.00
Installed solar PV systems in health facilities (Number)		0.00	3.00	19.00
<i>Action: This indicator has been Revised</i>				
Installed solar PV systems for schools (Number) (Number)		0.00		7.00
<i>Action: This indicator is New</i>				



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