



Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 14-Nov-2018 | Report No: PIDISDSA25710



BASIC INFORMATION

A. Basic Project Data

Country West Bank and Gaza	Project ID P167914	Project Name Electricity Sector Performance Improvement Project - Additional Finance	Parent Project ID (if any) P148600
Parent Project Name West Bank and Gaza Electricity Sector Performance Improvement Project	Region MIDDLE EAST AND NORTH AFRICA	Estimated Appraisal Date 08-Oct-2018	Estimated Board Date 19-Dec-2018
Practice Area (Lead) Energy & Extractives	Financing Instrument Investment Project Financing	Borrower(s) Palestinian Liberation Organization (for the Benefit of the Palestinian Authority)	Implementing Agency Palestinian Energy and Natural Resources Authority (PENRA)

Proposed Development Objective(s) Parent

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.

Proposed Development Objective(s) Additional Financing

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

Components

- Component 1 - Strengthening the Capacity of Palestinian Electricity Sector Institutions, PETL and PERC
- Component 2 - Improving the operational performance of Palestinian electricity Distribution Companies (DISCOs)
- Component 3 - Improving Energy Security in Gaza with Solar Energy
- Component 4 - Technical Assistance, Capacity Building, and Project Management

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	12.00
Total Financing	12.00
of which IBRD/IDA	0.00



Financing Gap	0.00
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DETAILS

Non-World Bank Group Financing

Trust Funds	12.00
Partnership for Infrastructure Development MDTF	7.00
Special Financing	5.00

Environmental Assessment Category

B-Partial Assessment

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

1. The economic conditions in the Palestinian territories have significantly weakened in 2018, due to a decline in activity in Gaza. According to preliminary data by the Palestinian Central Bureau of Statistics (PCBS), real Gross Domestic Product (GDP) growth dropped to 2 percent in the first quarter of 2018 – half its average for the previous three years. The economy has been restrained for more than two decades by restrictions on movement, access, and trade that have kept investment levels extremely low and resulted in deindustrialization. Substantial transfers, mostly in the form of aid from the international community, have helped mitigate the impact of the restrictions through fueling consumption driven growth. Nevertheless, transfers have been declining and have witnessed a very large drop in 2017-18, particularly in Gaza, resulting in a lower growth trajectory for the overall economy.
2. The greatest challenge facing West Bank & Gaza is the high unemployment rate. The increase is due to a large jump in Gaza, where 53.7 percent of those in the labor force were unemployed in the second quarter of 2018. Lack of electricity supply is one of the several factors that are severely constraining economic opportunities and improved quality of life. The current critical situation requires renewed efforts by the donors, the Palestinian Authority (PA) and the Government of Israel (GoI). Until there is a permanent peace agreement, the Palestinian economy will continue to perform below its potential and this will impact the economic and fiscal performance. However, even without a final peace deal there is more that can be done to enhance the performance of the Palestinian economy and improve the fiscal situation. Increased donor support and continued reforms led by the PA are needed to ensure improved competitiveness and fiscal sustainability of the Palestinian economy over time.



Sectoral and Institutional Context

3. The electricity sector in Palestine is relatively nascent. Palestine Electricity Transmission Limited (PETL) was created in 2013, as a single buyer and system operator to ensure cohesive interaction with IEC. Israeli imports account for more than 99% of electricity supply in West Bank and more than half in Gaza. PENRA's strategy is to achieve greater autonomy through advanced transmission & distribution infrastructure; domestic generation and; long-term financial and operational sustainability. Energy sector issues in Palestine are deeply intertwined with Israel. Palestine not only imports most of its electricity from Israel but also shares the overall transmission infrastructure.
4. In the last two decades, a sustained reform process supported by the donor community has improved and consolidated the Palestinian energy sector from a fragmented municipally-based system to a more efficient single-buyer model. The reform consolidated the electricity distribution services of numerous fragmented municipalities and village councils (MVC) into larger distribution companies (DISCOs) to benefit from economies of scale. At present, Palestine has 6 DISCOs (5 in West Bank and 1 in Gaza), but still has more than 150 MVCs that have yet to transfer their electricity services. This process has been slowed down due to the challenging situation of municipal finances which lead them to use the revenues from electricity bills to subsidize other municipal services. On 13 September 2016, the PA and the GoI signed an agreement to resolve past electricity sector debt and agreed on general principles for a future Palestinian energy market. The commercial relationship between IEC and PETL is expected to be governed through a long-term Power Purchase Agreement (PPA). The PPA would also enable four high voltage substations financed by the European Investment Bank and constructed by IEC in the West Bank to be energized, bringing critical additional power supply and reducing losses. This PPA is expected to reduce the overall cost of electricity to Palestinian consumers and improve the quality and reliability of power supply.
5. Despite significant improvements in the electricity sector's performance, further efforts are required to achieve sustained improvements, consolidate sector reform and ensure the successful implementation of the Israeli-Palestinian electricity debt agreement. DISCOs' electricity bill collection rates increased from 52 percent (2007) to 84 percent (2015) on average due to the companies' decisive actions supported by the Bank and other donors. Network losses (technical and non-technical) however remain a major source of concern, since 25 percent (2015) of the power purchased is lost and cannot be billed to the end customer (up from 19 percent in 2007). The success of the new electricity debt agreement depends on the fact that PETLs pays 100 percent of the power purchased to IEC. In turn, DISCOs and end consumers need to follow-suit along the value chain. There is improvement as net lending has declined by 12 percent in the first half of 2018 (year-on-year) due to the PA's reform efforts, particularly to control electricity related costs.
6. Gaza continues to suffer from severe constraints. The 1.8 million people living in the Gaza Strip suffer from severe electricity shortages due to the inability to implement sustainable power supply options. The available power supply in Gaza barely meets a quarter of the demand resulting in rolling blackouts with 3-6 hours of power supply per day. The Gaza Power Plant is almost entirely dependent on emergency assistance from generous donors to purchase diesel fuel. Alternative solutions to provide more sustainable supply options, such as increased imports from Egypt and Israel, and the conversion of the Gaza Power Plant (GPP) to run on natural gas instead of diesel, have been in negotiations for over a decade. However, none of them have progressed due to political stalemate. The development of solar PV could not only improve the living conditions of a significant number of households, it could also be explored as a solution for key public and private sector needs.



7. The Bank redoubled its efforts in the energy sector of the West Bank and Gaza through ESPIP by initiating several measures including capacity building of PETAL and PERC and provision of training for the staff of energy sector institutions. In terms of improving the operational performance of the five DISCOs in the West Bank the project included initiatives for Revenue Protection and Management Information Systems. As part of the AF, these measures for Revenue Protection and Management Information Systems will cover the operations of GEDCO, which is responsible for the Gaza strip. The main benefit by inclusion of Gaza is that all the DISCOs in the Palestine will work towards developing a uniform system for revenue management and management information system. Additionally, the project will scale-up the Solar PV component to provide more and appropriately sized Solar PV kits to residential and SME customers through the revolving fund and support energy supply in hospitals and health clinics. The AF will directly scale-up the ESPIP components and thus enhance the results of the parent project.

C. Proposed Development Objective(s)

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.

Key Results

The proposed project proposes to improve the performance of Palestinian electricity sector institution, reduce system losses and pilot a revolving fund business model for deployment of solar PV systems in Gaza strip.

D. Project Description

8. The Additional Finance (AF) will scale-up the ESPIP project components. A description of the activities supported under the AF is provided below.
 1. **Component 1: Strengthening the Capacity of Palestinian Electricity Sector Institutions.** The AF will enhance focus on operational performance of PETL through the following additional activities, which are essential for PETL to fulfill its responsibilities as the single buyer and Transmission System Operator (TSO) and implement the long-term PPA with the Israel Electric Company (IEC).
 - (a) Development of PETL Master plan;
 - (b) Enhancement and support of PETL maintenance services;
 - (c) Support metering of 80 priority electricity connection points that will be managed by PETL, as part of the transition plan that is agreed under the IEC-PETL PPA.
 2. **Component 2: Improving the Operational Performance of Palestinian Electricity Distribution Companies (DISCOs).** The AF will finance a simple and direct scale-up of the activities being implemented under the ESPIP parent project to include all the five West Bank DISCOs; include Gaza DISCO and; enable support to new DISCOs that will be created as part of the ongoing sector consolidation efforts. The simultaneous planning and



installation across all DISCOs will ensure harmonization of operational and reporting capabilities of DISCOs and strengthen planning and monitoring across the sector.

- (a) RPP: Based on the detailed technical review of the current metering systems and key challenges, uniform installation of Advanced Metering Infrastructure (AMI) will be installed in the six DISCOs across West bank & Gaza. The AF will support expansion of smart meter deployment to Gaza DISCO, in addition to the smart meters deployment in the West Bank DISCOs under ESPIP.
- (b) MIS: Based on the detailed technical review of the current Management Information Systems in the six DISCOs, their emerging needs and opportunities for harmonization to improve information flows within the sector, a comprehensive and flexible approach has been defined. While ESPIP target was to support two DISCOs in West Bank, with the AF, the target is for each of the six DISCOs in West Bank & Gaza to have a functioning MIS that includes all four sub-systems: Enterprise Resource Planning (ERP), Customer Management System (CSM), Incident Management System (IMS) and Business Reporting (BI). In addition, the MIS at each DISCO will also include reporting linkage with PETL, PERC and PENRA. As PENRA continues to pursue consolidation in the sector, 1-2 new DISCOs may be created in in 2019-20, the AF will enable the same MIS system to be deployed in these new DISCOs.

3. **Component 3: Improving Energy Security in Gaza with Solar Energy.** This component will directly scale-up (a) the Pilot solar revolving fund established under the ESPIP parent project and (b) the solar rooftop solutions for health facilities in the Gaza strip.

- (a) *Pilot solar rooftop PV revolving fund:* This component seeks to pilot a sustainable business model, in the form of a revolving fund mechanism, that would enable adoption of rooftop solar PV systems by households and SMEs. The business model will not only have a multiplier effect as repayments from beneficiaries support additional customers, it will also support development of a local market for solar PV system design, supply, installation and after-sales service. The mechanism will be supported by awareness and capacity building program to improve sustainability of the impact. As this is a pilot, it is expected to be reviewed on an ongoing basis to ensure continual improvement and course correction, which will be documented through periodic lessons learned reports. The revolving fund will offer a wider range of rooftop solar PV systems ranging from 2.5KWp to 10KWp. The AF will supplement the original ESPIP budget to enable procurement of larger solar units with a special emphasis on SMEs. As customer awareness and knowledge is identified a major barrier, the AF will also provide targeted support to training for installers and end-users.

Battery waste management: This is a major environmental and health concern as Gaza strip is estimated to be home to more than 0.5million dead, recycled and new batteries. With strong potential for solar PV, the growth rate of battery imports is booming. Unfortunately, these batteries cannot be taken out of Gaza due to Israeli security considerations. ESPIP AF will develop a new project for improved battery recycling, storage and waste management by existing workshops in Gaza strip, and identify funding options for its implementation. An initial survey of the existing workshops has been completed and some improvement opportunities have been identified. This will not only fulfill the commitment in the ESMF but could support the efforts of PENRA, GEDCO, the private sector and development community to scale-up solar in Gaza.



- (b) Gaza strip has approximately 14 hospitals and 51 clinics that can benefit from solar rooftop solutions. The WB Programmatic TF is financing the assessment for one hospital and five medical clinics. The priority hospitals and health facilities are identified in consultation with PENRA, Ministry of Health, World Health Organization (WHO) and GEDCO. These health facilities are expected to further optimize solar power by replacing the lights and if possible some cooling equipment. AF will therefore support the following:
- (i) A proposed 650KWp solar PV system in Nasser hospital has been identified as a potential first hospital. This system is being supported by WHO (250KWp) and could include complementary support from ESPIP for installation of up to 400KWp system (200KWp from ESPIP and 200KWp from AF);
 - (ii) Installation of solar rooftop solutions in up to 5 health clinics;
 - (iii) Training and capacity building of engineering teams from the health facilities.

9. Component 4: Technical Assistance, Capacity Building, and Project Management: The AF has a higher budget for TA support to dedicate resources for technical assessments & Feasibility studies to develop a high priority project pipeline. This activity responds to interest from key stakeholders in identifying priority projects and developing an 'implementation-ready' pipeline for potential financing by development partners and private sector. In addition, this component will support workshops & trainings for PENRA, PETL, PERC and DISCOs and support core staff from the PMU, along with recruitment of specialist staff (e.g., MIS) to support the project during implementation.

E. Implementation

Institutional and Implementation Arrangements

10. PENRA is the responsible government agency for this project. The Project Management Unit (PMU) of the PENRA will provide general implementation support and coordination and is responsible for executing all the four components. PENRA will be receiving support in the implementation from the energy sector institutions, namely PETL, PERC and the DISCOs in West Bank and Gaza.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

Project activities will target electricity distribution companies (e.g., GEDCO, NEDCO, HEBCO) spanning the entire geographical area of West Bank and Gaza, i.e., the governorates in the West Bank and Gaza Strip. The project will involve deployment of smart meters and rooftop solar systems, which will be spread all over the West Bank and Gaza territories, which are covered by the DISCOs. The hospital and health clinics will be in Gaza strip and will be selected following a technical assessment.

G. Environmental and Social Safeguards Specialists on the Team

Helen Z. Shahriari, Social Specialist
Zeyad Abu-Hassanein, Environmental Specialist



SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The parent project is classified as category B₂ according to the World Bank Policy OP 4.01. Project financing will include interventions for installation of rooftop PV solar panels, smart meters, equipment for operation of sub-stations, and other meters installed on the networks. The environmental impacts of those interventions are limited, localized, and easily mitigated, mainly occupational health and safety related to labor during construction and maintenance. During operation, it is expected that battery waste will be generated and the project is providing a TA to address the lead battery waste in Gaza by upgrading the capacity of existing workshops for handling and recycling battery waste. Since the exact locations of sub-projects will be fully determined during project implementation, an Environmental and Social Management Framework (ESMF) has been prepared and consulted by the client, approved by the Bank, and disclosed before appraisal in March 2017. For the purpose of the AF, the ESMF will be re-disclosed locally at PENRA website in November 2018. The AF will finance similar activities in Gaza Strip to install rooftop PV solar panels on residential buildings, clinics, hospitals, and SMEs. A feasibility assessment will identify the exact locations of the beneficiaries, once identified, the client will prepare specific ESMPs by virtue of the requirements of the ESMF. The ESMPs will identify the risks associated with each specific location and provide mitigation measures to address the risks. The project is also financing updating the master plans for the distribution companies in West Bank and Gaza and the ToRs will include provisions to ensure social and environmental considerations are incorporated in the master plans properly.</p>
Performance Standards for Private Sector Activities OP/BP 4.03	No	No activities of the project are implemented by private sector



Natural Habitats OP/BP 4.04	No	The installations and construction works are expected in urbanized areas and no natural habitat is expected to be impacted by project activities.
Forests OP/BP 4.36	No	The installations and construction works are expected in urbanized areas and no forests is expected to be impacted by project activities.
Pest Management OP 4.09	No	The project does not finance the purchase of any pesticides or equipment for pest management
Physical Cultural Resources OP/BP 4.11	No	no physical cultural resources are expected to be affected by project activities
Indigenous Peoples OP/BP 4.10	No	no indigenous people will be impacted by project activities
Involuntary Resettlement OP/BP 4.12	No	The project does not trigger the World Bank Resettlement Policy (OP 4.12). The only civil works is limited to installation of the solar panels on the roof tops of the existing residential units in Gaza on a pilot bases. Under component 3, the business model for rooftop solar energy in Gaza. Will be piloted. The pilot aims to reduce the barrier to entry for all income levels, including the poor. Although the OP 4.12 is not triggered the Environmental and Social Management Framework (ESMF) has been prepared and the PIU environmental safeguards officers will screen all the sub-projects for social and environmental compliance.
Safety of Dams OP/BP 4.37	No	The project has no impacts on any dams
Projects on International Waterways OP/BP 7.50	No	The project activities do not include any on international waterways
Projects in Disputed Areas OP/BP 7.60	No	N/A

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

Project financing will include interventions for installation of rooftop PV solar modules in Gaza, smart meters, equipment for operation of sub-stations, and other meters installed on the networks for the distribution companies in West Bank. The environmental impacts of those interventions are limited, localized, and easily mitigated during construction and operation, including noise, dust, interruption of services, occupational health and safety risks, and battery waste disposal. The project triggers OP 4.01 on environmental assessment and the project is classified as category "B" requiring partial assessment. Since the exact locations of sub-projects will be fully determined during project implementation, an Environmental and Social Management Framework (ESMF) was prepared and consulted



by the client recently in March 2017, approved by the Bank, and disclosed on PENRA website. It includes proposed measures to mitigate for the potential risks, screening methodology for sub-projects against safeguards policies, a monitoring plan and implementation arrangements of the ESMF. By virtue of the ESMF, site-specific ESMPs will be prepared for locations of subprojects, e.g., the rooftop solar PV systems for Nasser Hospital in Gaza City and other selected clinics and SMEs in the Gaza Strip.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area: Replacement of spare parts and batteries for the solar modules is expected once every three years. The ESMF stipulates that disposal of batteries and spare parts will be conducted in an environmentally sound manner to a licenced facility by the Palestinian Environmental Quality Authority. Battery waste is an environmental and health concern as Gaza strip is estimated to be home to more than 0.5million dead, recycled and new batteries. With strong potential for solar PV, the growth rate of battery imports is booming. Unfortunately, these batteries cannot be taken out of Gaza due to Israeli security considerations. ESPIP AF will develop a new project for improved battery recycling, storage and waste management by existing workshops in Gaza strip, and identify funding options for its implementation. An initial survey of the existing workshops has been completed and some improvement opportunities have been identified. This will not only fulfill the commitment in the ESMF but could support the efforts of PENRA, GEDCO, the private sector and development community to scale-up solar in Gaza.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

N/A

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The electricity distribution companies in Gaza (GEDCO) who are responsible for installation of rooftop PV solar systems is responsible to implement the provisions of site-specific ESMPs and mitigate for any negative impacts during construction and operation including OHS, the same applies to DISCOs in the West Bank who install smart meters and other equipment on the networks. PENRA is responsible to monitor the compliance of the distribution companies. A qualified environmental officer at PENRA/PIU was hired and is responsible for conducting sub-projects screening, identifying environmental and social risks, liaison with the Environment Quality Authority as needed, and monitoring compliance of beneficiary distribution companies and their sub-contractors with the provisions of the ESMF. Overall, the safeguards performance and compliance during the past period of implementation of the parent ESPIP project is rated satisfactory.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The Key stakeholder is the Palestinian Energy Authority (PENRA), direct beneficiaries from the project are the electricity distribution companies in West Bank and Gaza. Consultations with key stakeholders on the ESMF including the Environment Quality Authority was conducted by the PIU/PENRA in February 2017 and will be conducted again during March 2019 before the first set of sites are finalized. By virtue of the ESMF, further consultations on follow-up instruments (i.e., specific ESMPs) will be conducted by the distribution companies with affected parties once identified, including women and men as well as female- and male-led SMEs during project implementation, beginning in March 2019 when the first set of sites is identified Disclosure of ESMPs will be ensured before the start of construction, which is expected in August 2019. In addition, the ESMF will be re-disclosed locally on the Website of PENRA in November 2018.

In terms of Citizen Engagement and beneficiary feedback, a grievance redress mechanism is being established to allow



beneficiaries and citizens to seek information, submit inquiries or file complaints. Individuals (including SMEs) and households will have been informed of the process for expressing dissatisfaction and channels to seek redress. Awareness campaigns will include printing and distributing leaflets. A telephone number of a Call Center to seek information, submit inquiries and file complaints will also be available on the electricity bill. The grievance redress mechanism will be gender sensitive, ensuring women’s access to the complaints system. The grievance procedure will be simple and will be administered at the GEDCO and PENRA level.

B. Disclosure Requirements (N.B. The sections below appear only if corresponding safeguard policy is triggered)

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank 19-Mar-2017	Date of submission for disclosure 20-Mar-2017	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
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"In country" Disclosure

West Bank and Gaza
19-Mar-2017

Comments

For the purpose of the AF, the ESMF will be re-disclosed locally on PENRA website in November 2018

If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.

If in-country disclosure of any of the above documents is not expected, please explain why:

All the provisions of the ESMF are valid for the AF and the ESMF will be re-disclosed on PENRA website in November 2018. Follow up site-specific ESMPS will be prepared by virtue of the ESMF once the exact locations of the roof-top solar panels for residential buildings, hospitals, and SMEs are fully identified.

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting) (N.B. The sections below appear only if corresponding safeguard policy is triggered)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes



The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

CONTACT POINT

World Bank

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Borrower/Client/Recipient

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Implementing Agencies

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APPROVAL

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Approved By

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Country Director:	Marina Wes	19-Nov-2018