

Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 25-Feb-2020 | Report No: PIDA27605

BASIC INFORMATION

A. Basic Project Data

Country West Bank and Gaza	Project ID P170928	Project Name Advancing Sustainability in Performance, Infrastructure, and Reliability of the Energy Sector in the West Bank and Gaza	Parent Project ID (if any)
Region MIDDLE EAST AND NORTH AFRICA	Estimated Appraisal Date 17-Feb-2020	Estimated Board Date 30-Mar-2020	Practice Area (Lead) Energy & Extractives
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance	Implementing Agency Palestinian Energy and Natural Resources Authority (PENRA)	

Proposed Development Objective(s)

The Program Development Objective (PrDO) is to improve operational and financial performance of electricity sector institutions and increased diversification of energy sources in the West Bank and Gaza. The Phase I Project Development Objective (PDO) is to improve operational and financial performance of electricity sector institutions and increased diversification of energy sources in the West Bank and Gaza.

Components

Component 1: Improving Infrastructure for Regional Electricity Interconnections in the West Bank and Gaza
 Component 2: Improving Sustainability of Service Delivery (Operational Performance of Palestinian Electricity Distribution Companies) DISCOs
 Component 3: Enabling Private Sector Engagement in Renewable Energy
 Component 4: Technical Assistance, Capacity Building and Project Management

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	63.00
Total Financing	63.00
of which IBRD/IDA	0.00

Financing Gap	0.00
DETAILS	
Non-World Bank Group Financing	
Trust Funds	63.00
Partnership for Infrastructure Development MDTF	49.00
Special Financing	14.00
Environmental and Social Risk Classification	
Substantial	
Decision	
The review did authorize the team to appraise and negotiate	

Other Decision (as needed)

B. Introduction and Context

Country Context

1. The political situation in the West Bank and Gaza (WB&G) remains difficult and uncertain. Palestinian growth has faltered, unemployment remains high, and poverty has been on the rise. After two strong quarters at the end of 2018, growth of real Gross Domestic Product (GDP) in WB&G contracted by 1 percent in the first quarter of the 2019¹. Contraction was driven by a slowdown in the West Bank, which experienced a decline in private and public consumption. During the second quarter of 2019, overall unemployment was 26 percent—similar to the unemployment level in 2018.² Within the West Bank, unemployment was 15 percent—2 percent below 2018 average—mostly due to more jobs created in domestic commercial activities. However, unemployment increased to 47 percent in Gaza—3 percent above 2018. Inflows of transfers have significantly dropped in recent years, making it more pressing to unlock private sector growth, even though constrained by a difficult business environment.

2. Despite the loss of nearly two thirds of PA revenues during 2019, due to the clearance revenue standoff with the GoI, recession has been avoided by various measures and coping mechanisms which have insulated the

¹ This contraction is compared to the previous quarter on a seasonally adjusted basis. Preliminary data from Palestine Central Bureau of Statistics.

² Gender-based gaps in unemployment are stark, with female unemployment at 50 percent compared to male unemployment at 25 percent. <http://www.pcbs.gov.ps/Downloads/book2433.pdf> (accessed on October 27, 2019)

impact on disposable income.³ Large cuts in public spending were likely to have negatively impacted economic activity given the existence of large fiscal multipliers. However, several higher frequency indicators—such as industrial production, imports, exports, and the share of returned checks—have not shown signs of deteriorating economic activity up until June 2019. . While an extended economic outlook (3 to 5-year forecast) is not readily available in the Palestinian context, the Palestinian economy—with significant donor support—has proven resilient over years of potential economic catastrophe. The PA has continued to face large fiscal deficits in recent years, mainly emanating from Gaza while fiscal operations in the West Bank remained mostly break even.

Sectoral and Institutional Context

3. **Over the last two decades, the electricity sector reform process has transformed the energy sector from a municipal-based system to a more structured sector model.** The Palestinian Energy and Natural Resources Authority (PENRA) was originally established in 1995 when over 500 interconnections with Israeli grid provided electricity supply to villages and towns across West Bank & Gaza. As of 2018, over 80% of the total electricity supply in West Bank has been consolidated into five distribution companies. In the last decade, PA has pursued a series of reforms to create and operationalize the regulatory agency (Palestine Electricity Regulatory Commission, PERC) and the single-buyer and transmission system operator (Palestine Electricity Transmission Co. Ltd., PETL) and; to implement policy measures to improve financial discipline and encourage decentralized renewable energy. Geographical, operational and financial fragmentation across the electricity supply chain continues to be a key constraint towards sustainability. Continued efforts are required and underway to improve cohesion and sustainability across domestic generation sources, transmission and distribution infrastructure and service delivery to Palestinian customers.

4. **Achieving sustainability in the electricity sector in WB&G presents a unique and complex set of challenges as the Palestinian and Israeli electricity sectors are deeply intertwined, affecting the process of consolidation of transmission and distribution systems in West Bank and growth in domestic generation.** Imports from Israel account for more than 90 percent of electricity supply in West Bank and over half in Gaza. Currently, the supply is entirely managed by IEC with minimal commercial and service quality agreements with limited ability of PETL and DISCOs/LGUs to monitor and manage the quantity and quality of supply or; to encourage local power generation. Customers across West Bank experience poor quality of available supply and are increasingly suffering from power shortages. Shortage in Gaza is particularly severe. In Gaza, the available power supply is limited to 6 to 12 hours a day, depending on electricity imports from Israel and operation of the Gaza Power Plant (GPP).

5. **Financial creditworthiness is crucial for the energy sector to ensure continual improvements in service delivery and attract private sector interest.** This requires payment discipline across the sector to reduce non-payments and revenue losses. For years, a mechanism known as ‘net lending⁴’ has allowed IEC to request Israeli Ministry of Finance (IMOF) to recover outstanding electricity bills, together with penalties and charges, from the tax revenues collected by IMOF on behalf of the PA. This mechanism has exacerbated the lack of payment discipline by systematizing it. In September 2016, the PA and Gol entered into an agreement to resolve past

³ This section is based on the Economic Monitoring report to the Ad-Hoc Liaison Committee (AHLIC), September 2019

⁴ West Bank and Gaza - Assessment and action plan to improve payment for electricity services in the Palestinian territories: study on electricity sector contribution to net lending (2014)

electricity sector debt. This set the stage for an interim PPA in July 2017, which was expected to be followed by a comprehensive, long-term PPA that would allow PETL to purchase electricity from IEC at a uniform price. In the meanwhile, as an initial step towards streamlining, PETL has set up a centralized billing system that allows monitoring of the bills issued by IEC to DISCOs and LGUs and payment records. PETL has also established a unified account to manage the interim PPA signed with IEC and the PPAs signed with two solar IPPs. These are showing early positive results and provide a blueprint for the sector.

6. **Electricity sector debt continues to be a major concern even as the West Bank DISCOs have seen revenue collection from general customers increase to nearly 90 percent. Improved revenue collection is only effective when it translates into timely and full payment to suppliers.** The urban areas served by DISCOs receiving supply from PETL report improved power quality and nearly 100 percent repayment. Recent decrees and regulations have strengthened the ability of DISCOs/LGUs to impose penalties on non-paying general consumers. Across WB&G, bill payment by general consumers (residential, commercial and industrial) is between 80-90%. However, DISCOs/LGUs are unable to enforce non-payment related penalties on other customers namely, public institutions, social assistance cases⁵ and, refugee areas or to penalize theft cases in areas with restricted access. These are captured as non-technical losses, which stand at nearly 25%, much higher than acceptable rates. The payment shortfall is further exacerbated by low tariffs and lack of transfer of subsidies. At present, non-payment and tariff issues are contributing to financial deficits of nearly US\$150 million per year – undermining the ongoing efforts to strengthen sector creditworthiness.

7. **PENRA's strategic long-term vision to achieve greater autonomy through financial and operational sustainability and diversification of power supply is achievable.** PENRA's vision for the longer-term is to balance imports from Israel, Jordan, Egypt, and domestic generation in a manner that no single source accounts for more than 50% of the electricity demand. As the electricity system in WB&G is highly integrated with the Israeli electricity system, the addition of new generation or expanded imports requires close coordination with IEC, and in many instances, the approval of Israeli authorities. Diversification of sources can be achieved through imports of electricity, which could provide a unique and mutually beneficial opportunity in the sub-region and through enabling private sector participation. Overall, the benefits of a sustainable electricity sector are essential toward reducing the burden on government revenues, enhancing the performance of the economy, and ensuring improved competitiveness and fiscal sustainability of the Palestinian economy.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

8. To improve operational and financial performance of electricity sector institutions and increase diversification of energy sources in West Bank and Gaza.

Key Results

9. The program aims to improve operational and financial performance of energy sector institutions by investments in infrastructure and improving overall service delivery, which in turn contributes to improving the sector creditworthiness that is essential to increase private sector investments in the energy sector.

⁵ Among the vulnerable populations, non-payment is more common among FHHs, with 25 percent reporting to have never paid for electricity connection compared to 11 percent of their male counterparts. (Atamanov, A and Palaniswamy, N. 2019).

D. Project Description

10. **PENRA is responsible for implementing the entire program and will coordinate with the respective sector institutions, as noted below.** The selection of activities for inclusion in Phase 1 is based on three factors, which will also be used as the basis for prioritization in the future phases, (i) scaling-up of activities initiated under the ongoing projects; (ii) urgent activities to reduce load-shedding and power quality issues by enabling transfer of electricity from IEC and Jordan or evacuation of existing/upcoming solar PV systems; and (iii) foundational activities related to financial discipline that are crucial to build sector creditworthiness.

Component 1: Improving infrastructure for regional electricity interconnections

11. **The first component contributes to the PrDO by enhancing operational performance and increasing diversification of supply from imports.** The activities under this component will be led by PENRA, PETL and relevant DISCOs and will focus on strengthening infrastructure for medium and high voltage interconnection and evacuation of solar PV systems. This would enable increase in electricity supply from Jordan and Israel. In addition, this would enable PETL and PENRA to initiate a longer-term discussion on improving electricity supply in Gaza. The sub-components will focus on (i) enhancing single-buyer role of PETL through rehabilitation and transfer of IEC inter-connection points; (ii) upgrading existing distribution infrastructure in Jenin, Nablus, Hebron and Gaza areas to increase power supply from IEC and utilization within the DISCOs, including rehabilitation of Tarqumiya substation and; (iii) enabling evacuation of imported energy from Jordan through Jericho to Ramallah to address supply shortages.

Component 2: Improving sustainability of service delivery in West Bank & Gaza DISCOs

12. **This component contributes to the PrDO by enhancing financial performance through the scale-up of the ongoing Revenue Protection Program (RPP), started under ESPIP, for improved metering and billing systems in West Bank and Gaza.** The activities under this component will be led by PENRA and the respective DISCOs in West Bank and Gaza. This component aims toward sustained improvement of operational performance of the DISCOs. The RPP includes smart meters to improve billing and collection for the high-value segment of consumers, which represent the largest electricity consumption and sales. Under ESPIP, RPP stage 1 is covering the top 15,000 customers responsible for 23 percent of the total electricity consumption across the six DISCOs. Under ASPIRE Phase 1, RPP stage 2 will be implemented that will expand the target to 30 percent of largest consumption. This may include a focus on public sector customers. This phase will also identify solutions to (i) address poorer communities, which form the bottom 30 percent of consumption with wide-spread non-payment, (ii) reduce non-technical losses (theft and undocumented customers) and; (ii) improve payments and encourage conservation among public sector customers, which are expected to be implemented in future phases.

Component 3: Enabling Private Sector Engagement in Renewable Energy in West Bank & Gaza

13. **This component contributes to the PrDO by diversifying energy sources distributed solar in West Bank & Gaza.** The component supports three broad activities: (i) increasing ability of the grid to evacuate rooftop and small-scale solar PV systems; (ii) scaling-up the existing revolving fund for rooftop solar PV systems; and (iii) strengthening sector and PETL creditworthiness to attract private sector as independent power producers. This

component will also contribute to reducing the identified gender gaps.⁶ The activities under this component will be led by PENRA, in coordination with the DISCOs, relevant line ministries and local commercial banks. The activities related to health facilities will be implemented in coordination with the Ministry of Health and those related to the liquidity support account and payment system in partnership with the Ministry of Finance and the high-level sector reform committee.

Component 4: Technical Assistance, Capacity Building and Project Management.

14. The activities under this component will be led by the Project Management Unit (PMU) in PENRA, which will coordinate with the energy sector institutions including PETL, DISCOs, PERC, the PA including, Ministry of Finance and other private sector institutions. This component includes project management cost, which includes partial cost of PMU staff salaries and cost of related consulting and advisory services to the PMU. This will reinforce monitoring, reporting and evaluation capabilities of the PMU. This component will enable technical advisory support for design of the PETL liquidity support account and payment system and organize workshops, support feasibility studies, engage experts and ensure adequate dialogue and knowledge-sharing within the sector and in coordination with other line ministries. The component will also provide a technical assistance activity to improve battery waste management and recycling in Gaza strip.

15. **Gender actions related to Components 1 and 2 focus on improving** electricity infrastructure and service delivery to enhance the populations' living conditions and welfare, especially the poorest populations groups, including women. To this end, ASPIRE will seek to expand access of the Gaza solar revolving fund for solar PV systems to salaried female head of households also to West Bank. Based on preliminary analysis, some of the most vulnerable households, particularly female-headed households⁷ may only be able to afford the system with a partial grant (40-70 percent) or may not even have a rooftop space. Phase 1 will seek specific solutions to target vulnerable FHHs who represent 8 percent of households in Gaza. Increasing their access to renewable energy can improve vulnerable women's socio-economic situation by reducing their time spent on household chores and current energy practices. In addition, the revolving fund will target female-owned businesses, especially micro-establishments, who are affected by electricity shortages and are unable to use expensive diesel generators. Supporting female entrepreneurship not only contributes to economic growth but also to social and human capital development of the overall population.⁸ ASPIRE will ensure that the beneficiary women-owned businesses' needs are captured in the analysis and responded to in the provision of financial tools and solar kit options.⁹ In addition, ASPIRE will generate new evidence on the distribution of female staff in the energy industry and assess opportunities for new skills in renewable market.

⁶ More details on the gender analysis and actions are in Annex 2a.

⁷ Palestinian Central Bureau of Statistics (PCBS) On the occasion of the International Population Day 11/7/2018. Female heads of households who represent 9.4% percent of households in Gaza are among the most vulnerable of all groups of population. With 63 percent of them over 55 years old and widowed (74 percent), FHHs have limited income generating opportunities with 91 percent are reported as unemployed yet their household consumes the same amount of electricity or slightly more compared to male head of households (per capita).

⁸ World Bank Policy Research Working Paper 8284 (2017); Women's Entrepreneurship - How to Measure the Gap between New Female and Male Entrepreneurs?

⁹ Analysis will include a market assessment of MSMEs to understand their demand for financial services and assess their needs/priorities in terms of technical specifications surrounding solar kits.

Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Assessment of Environmental and Social Risks and Impacts

16. The main risks identified and relevant to the project activities are : (i) Construction risks, e.g., dust, noise, interruption of utilities, safety of workers, (ii) occupational health and safety of operation of substations and EM risks to close-by communities, solid waste management, and PCB / other chemical handling and disposal, handling, recycling, and disposal of acid battery waste. With respect to social risks, land take, restriction of access, labor influx and GBV, possible exclusion of the most vulnerable, are among some of the social risks.

E. Implementation

Institutional and Implementation Arrangements

17. **Recipient and executing agency.** The PA, through the Palestinian Liberation Organization (PLO), is the Recipient of the project, while PENRA is the executing agency. PENRA was established in 1995 and its mandate consolidated with the approval of the 1997 ‘Letter of Sector Policy’, which highlighted the key institutional reforms needed by the sector.

18. During project preparation, attention was given to PENRA’s technical and implementation capabilities. PENRA and the sector institutions have qualified personnel to: (a) prepare and implement the generation, distribution, and transmission activities to be financed under the proposed project; and (b) prepare, supervise, and ensure the quality control of all studies and activities to be carried out under the Technical Assistance component. The PMU will also bring on board subject-matter experts to support the technical staff of PENRA and the sector institutions.

19. Attention was also given to anticorruption measures adopted by PENRA within its own organization and in its dealing with consultants and other suppliers. It was noted that all contracts between PENRA and its suppliers include anticorruption clauses to be signed by the contractors. PENRA procedures agree with the provisions of the World Bank’s Anti-Corruption Guidelines applicable to the project.

20. **Project management.** PENRA has a well-established PMU, which is working on all donor-funded projects, including the World Bank’s Gaza Electricity Network Rehabilitation Project (GENRP) and Electricity Sector Performance Improvement Project (ESPIP), under supervision. The PMU core team comprises a Project Director, Procurement Officer(s), Accountant(s), Project Engineer and Procurement Assistant(s). The PMU ensures coordination with PETL, PERC, and DISCOs on procurement and implementation of equipment and technical assistance to be provided under the project. The PMU staff salaries and operational expenditures will continue to be partially financed by the MPA. The sustainability plan, to reduce donor dependency and ensure project sustainability, will continue to be assessed. As the PMU’s role is evolving from project to program management,

an in-depth functional analysis and capacity needs assessment will be undertaken to identify opportunities to enhance its effectiveness and to revise the PMU organization structure, as needed. PENRA will also secure additional planning, procurement and technical advisory support to strengthen PMU performance.

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APPROVAL

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