Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 20-Feb-2022 | Report No: PIDA33297

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Project Name	Parent Project ID (if any)
Yemen, Republic of	P178347	Yemen Emergency Electricity Access Project-Phase II	
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
MIDDLE EAST AND NORTH AFRICA	16-Feb-2022	15-Apr-2022	Energy & Extractives
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	UNOPS	UNOPS	

Proposed Development Objective(s)

Improve access to electricity in rural and peri-urban areas and plan for the restoration of the national power sector.

Components

1. Electricity Access in Rural and Peri-urban Areas
2. Implementation Support, Market Development, and Technical Assistance for Power Sector Sustainability
3. Contingent Emergency Response Component (CERC)

The processing of this project is applying the policy requirements exceptions for situations of urgent need of assistance or capacity constraints that are outlined in OP 10.00, paragraph 12.
Yes

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	120.40
Total Financing	120.40
of which IBRD/IDA	100.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	100.00
IDA Grant	100.00
Non-World Bank Group Financing	
Commercial Financing	20.40
Unguaranteed Commercial Financing	20.40

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 Republic of Yemen is currently in the middle of a severe humanitarian crisis.** The country has been in military conflict since 2014, struggling due to a fall in global prices, weak public infrastructure, a limited ability to cope with extreme climate events, and the strains of COVID-19. Yemen's overall poverty rate is estimated to be 80 percent, and the war has set the country's development back by 25 years. Yemen also battles mass outbreaks of preventable diseases such as cholera, diphtheria, measles, and dengue fever. Yemen's death rate is currently five times the global average[1], and the country has been designated a fragility, conflict, and violence (FCV) country by the World Bank.

2. **The ongoing conflict has severe socioeconomic consequences on the country.** The Yemeni riyal continues to depreciate to new historic lows, driving large increases in food prices and pushing more people into extreme poverty. Socioeconomic conditions are deteriorating rapidly, affected by declining remittances, trade disruptions, severe fuel supply shortages, and the disruption and declining humanitarian operations

3. **The Republic of Yemen's private sector shows signs of resilience.** The private sector in Yemen has acquired a vital role during the economic downturn, as it continued to enhance community resilience and facilitate distribution, storage, and logistical services for humanitarian actors. The business sector

[1] The United Nations Development Programme estimated in November 2021 that 377,000 Yemenis will have been killed by the conflict by the end of 2021, most indirectly and not in combat, 70% of them children under the age of five.

leads all economic activities, and roughly 75 percent of local, SME enterprises are still trading and resilient.

4. **The effects of climate change have also exacerbated the disaster vulnerability of the Republic of Yemen.** The Notre Dame Global Adaptation Initiative (ND-GAIN) ranks Yemen as the 26th most climate change vulnerable country in the world and the 17th least-ready country to adapt, with its readiness score significantly affected by the ongoing conflict.

Yemen's Rural Context

5. **Nearly 70 percent[2] of Yemen's 31 million population[3] lives in rural and peri-urban areas where the level of poverty is higher than in urban areas and increasing.** More than 12 million of the population in rural and peri-urban areas are poor and food insecure, while more than 5 million are on the verge of starvation. GDP per capita has more than halved since 2014[4], reflecting the deteriorating situation. During the 1980s, Yemeni men sent and brought back substantial remittances from Saudi Arabia, UAE, and other countries[5], investing them in vehicles, new houses, and water wells with diesel-operated pumps, and turned their rain-fed farm fields into irrigated fields of qat and citrus. By the 1990s, rural living conditions began to deteriorate because of the civil war and external shocks. In the early 2000s, as farming incomes diminished, the main source of income for most rural households was men's urban labor, resulting in less earnings. Poverty worsened. By 2020, meager household incomes in rural Yemen had mostly disappeared, falling victim to Yemen's ongoing conflict, devastating droughts and floods, and the global COVID-19 pandemic. Self-sufficiency in basic staples was a distant memory. Rural people became as dependent on food imports as urban dwellers, with one notable difference – the higher added cost of transportation to remote locations.

6. **Since commencement of the conflict in 2014, rural living conditions have continued to deteriorate.** Air strikes that target infrastructure slow down the transport of food and increase its cost. Damage to critical services facilities—health clinics, water and sanitation infrastructure, and schools—has resulted in increased deaths and illnesses due to disease and starvation.

7. **The World Bank[6] and other international organizations have helped provide solar energy solutions for rural and peri-urban health clinics, schools, and water facilities and have encouraged the development of a private sector-driven market for renewable, off-grid electricity.** However, the support has not been enough. The need for targeted interventions to improve electricity access to rural and peri-

[2] Yemen Rural Population 1960–2021 Macro Trends. Yemen's rural population for 2020 was 18,519,540, a 1.24 percent increase from 2019. https://www.macrotrends.net.

[3] As of January 19, 2022, based on Worldometer elaboration of the latest UN data.

[4] World Bank data

[5] Remittances, whether from laborers or professionals, have fallen significantly since mid-1990s. Saudi Arabia's July 2021 decision to not renew work contracts for Yemeni professional could result in a mass forced return of Yemeni workers, a move that would further devastate Yemen's collapsing economy by cutting off at least two million Yemenis' remittances sent to families in Yemen. Yemen War Victims Beyond the Headlines, Human Rights Watch, 2 February 2022; and Saudi Arabia: Yemeni Workers at Risk of Mass Forced Returns Human Rights Watch August 31, 2021

[6] RY EEAP, approved in 2018, provided a US$ 50 million IDA grant to address electricity access and product quality issues in rural and peri-urban areas by financing solar PV solutions for urgent needs in rural and peri-urban areas.

urban households and critical services facilities continues to be huge. More attention and assistance needs be paid to restoring and improving off-grid power supply in rural and peri-urban areas if the worst effects of the humanitarian crisis are to be stemmed. Restoring access to electricity is a critical factor in alleviating the dire humanitarian situation across the country, restoring livelihoods, and fighting preventable diseases, especially in the underserved rural and peri-urban areas of Yemen.

Sectoral and Institutional Context

8. **The energy sector in Yemen comprises two main components: (a) oil and natural gas production and (b) electricity production, transmission, and distribution.** The two are intertwined because oil and gas sector revenues provide most of the government revenues required to subsidize the electricity sector and fuel supply drives electricity production.

9. **Yemen's state-owned Public Electricity Corporation (PEC) is the enterprise that oversees electricity generation, transmission, and distribution in the county.** Other sector participants include the General Authority for Rural Electrification (GARE), which is responsible for electrifying specific rural areas outside the main and secondary cities; private generators that produce electricity for own use or to sell to the PEC; private captive power produced for government buildings; and self-generation by consumers. The PEC struggles to meet the demand of its existing customers, most of which are urban, and there are no indications that the crises the utility faces will be resolved soon or that rural households and institutions will be connected to the grid any time soon.

10. **Private sector participation in the electricity sector began in 2006 and was limited, by law, to electricity generation activities.** At present, there is no formal legal basis for the direct sale of privately produced electricity to end use consumers, even though such sales are taking place in Yemen during the conflict.

11. **Solar power represents a major opportunity to address some of the most immediate impacts of the developmental crisis and restore livelihoods.** In one of the few positive stories that emerged from the conflict, the lack of public electricity supply and limited fuel availability for diesel generators has led to the growth of a nascent industry for small- to medium-scale solar systems.

12. **The affordability of solar products remains a barrier for the poor and most vulnerable, and the low quality of products and after-sales support threaten the sustainability of the fledgling market.** The emerging solar market in Yemen is operating on a commercial basis and is driven by the private sector, with a supply chain that ranges from trading houses that import solar equipment to small-scale electronics retailers that expanded their business to solar panels. However, a market assessment by the World Bank found that debt finance is not readily available to most households. It also concluded that many household solar installations suffer from high failure rates.

Project Description

13. **The proposed Yemen Emergency Electricity Access Project-Phase II (RY-EEAP-II) will build on activities supported by the RY-EEAP, with an expanded focus on TA designed to support access to electricity supply and prepare for post-conflict restoration of the national power sector.** The operation

will adopt an integrated, area-based approach to expand electricity access for households and electricity-dependent critical public services for the rural and peri-urban population and support preparation of interventions to improve electricity supply across Yemen in a sustainable manner.

C. Proposed Development Objective(s)

14. The project's PDO is to improve access to electricity in rural and peri-urban areas and plan for restoration of the national power sector.

Key Results

15. Achievement of the PDO will be measured against the following key results indicators:

Improve access to electricity in rural and peri-urban areas

(a) People provided with new or improved electricity service (target: 3,500,000 of which 48 percent (1,680,000) are female), and

(b) Critical services facilities provided with new or improved electricity service (target: 750)

Plan for restoration of the national power sector

(c) Completion of an analytical assessment of future engagement options for the power sector and subsequent stakeholder consultations to inform on findings from the assessment. (Target: minimum 10 discussions consultations, with a minimum of 50 persons consulted, of which at least 10 percent are female)

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 project will include activities that might cause minor, site-specific reversible impacts such as those resulting from improper disposal of used batteries, and other health and safety impacts**. Social risks may include: i) elite capture of investments by powerful and/or better-connected beneficiaries, thus excluding some segments of society especially disadvantaged and marginalized groups; ii) workers and/or community safety such as injuries and health safety including covid; iii) labor working conditions such as child labor and forced labor concerns at the supply chain; iv) associated GBV risks including sexual

harassment and SEA; and (v) security risks due to conflict causing the closure of services. The technical assistance component will consist of pilot studies/activities but with potential E&S implications such as exclusion/discrimination of female stakeholders, e-waste management/recycling, support to existing power plants and transmission lines. Based on the above-expected project risks and impacts, the overall environmental and social risk is rated substantial.

Institutional and Implementation Arrangements

17. **Project implementation will be through UNOPS, who will in turn contract local parties with proven capacity on the ground**. Under subcomponent 1.1 of the project, household solar systems will be sold at subsidized prices (for cash or credit) to beneficiaries through Yemeni MFIs. Under subcomponents 1.2 and 1.3, UNOPS will procure solar systems for health centers, drinking water wells, schools, and COVID-19 isolation and vaccine cold chain units on a grant funded basis. For technical assistance, where other stakeholders will be involved, UNOPS will remain the contracting authority. However, such stakeholders will be represented in execution of the tasks.

18. The World Bank will provide close implementation support through quarterly review missions and regular videoconferences and travel of the World Bank team to UNOPS' regional office in Amman.

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APPROVAL

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