OFFICE OF THE QUARTET
(OQ)

Report for the Meeting of the Ad-Hoc Liaison Committee

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Contents

Abbreviations

DisCos-Distribution Companies

EU-European Union

GCDP-Gaza Central Desalination Plant

GEDCO-Gaza Electricity Distribution Company

GoI-Government of Israel

GPP-Gaza Power Plant

ICA-Israeli Civil Administration

IEC-Israel Electric Corporation

IMF-International Monetary Fund

JWC-Joint Water Committee

NGEST-Northern Gaza Emergency Sewage Treatment

OQ-Office of the Quartet

PA-Palestinian Authority

PENRA-Palestinian Energy and Natural Resources Authority

PERC-Palestinian Electricity Regulatory Council (PERC)

PETL - Palestinian Electricity Transmission Company Ltd.

PPA-Power Purchase Agreement

PSA-Power Sales Agreement

PWA-Palestinian Water Authority

RSDS- Red Sea Dead Sea Project

USAID-United States Agency for International Development

USSC-United States Security Coordinator for Israel and the Palestinian Authority

Executive Summary

The conflict between Israelis and Palestinians can only be brought to an end through a negotiated final status agreement. In the interim, in order to benefit Palestinians (and indirectly Israelis) and to support renewed final status negotiations, it is essential that progress be made on the ground. Economic progress is central to improving the daily lives of Palestinians and can support greater independence; however, it cannot replace final status negotiations.

Limited energy and water security remains a major impediment to development in the Palestinian Territory. The Office of the Quartet (OQ) works to ensure sectoral solutions. This report focuses on progress made in these two areas since the last meeting of the Ad Hoc Liaison Committee (AHLC) in September 2016. It emphasizes key next steps and the importance of ensuring the commercial viability of priority initiatives.

ENERGY

While the OQ works to support provision of a sector wide energy solution, it has a particular focus on two strategic initiatives: the implementation of the electricity agreement signed in September 2016 and the Gas for Gaza (G4G) project, to facilitate the construction of a gas pipeline, connecting Gaza to the Israeli natural gas network.

If implemented in full, the electricity agreement will transfer substantial control of the sector from Israel to the Palestinian Authority and will support the establishment of a commercially viable Palestinian electricity market. This will result in reduced reliance upon donor aid. The Power Purchase Agreement will be the key agreement governing the commercial relationship between Palestinian Electricity Transmission Company Ltd. (PETL) and IEC going forward. A new lower tariff for electricity will be established as part of the PPA negotiations, which is expected to bring significant cost savings to the PA and to Palestinian consumers. While progress has been made with the negotiations since September, due to delays, the target date for signing the PPA has been extended. **It is crucial that the PPA is concluded in a timely manner. This will unlock progress for the sector as a whole. The parties are strongly encouraged to sign the PPA as soon as possible and ideally no later than the September 2017 meeting of the AHLC in New York. Prior to the conclusion of the PPA, PETL and the IEC are strongly encouraged to agree upon the terms to energize the Jenin substation before the height of summer at the latest.**

At the request of the PA, following the September 2016 AHLC, the OQ has supported the development of a detailed and sequenced implementation plan for the electricity agreement. Key elements of the plan relate to the substations, connection points and transfer plans, billing and monitoring systems, capacity building, and legal and regulatory issues. Implementation in the transitional phase (2017-18) is estimated to cost approximately **USD 36 million. Donors are encouraged to provide initial financing to help the PA to cover this amount during the transitional phase. This funding will support the sector's transition to a more sustainable state.**

The ongoing electricity shortages in Gaza have recently worsened, demonstrating that continuing to run the Gaza Power Plant on diesel fuel is unsustainable. Resolving the energy crisis in Gaza requires a holistic approach to the sector's development over the short, medium and long term. This includes

development of the 161kV line, upgrades to the grid and transmission network, and the Gas for Gaza (G4G) project. Connecting Gaza to natural gas is the only long term solution to Gaza's energy crisis. It will facilitate a significant expansion in generation capacity in Gaza and bring substantial cost savings to the sector.

G4G has advanced from the conceptual to the implementation stage since the last AHLC, with the completion of the technical, commercial and legal feasibility studies. The official planning and permitting process for the Israeli section of the pipeline commenced in Q2 2017. This process is expected to take around 24 months in total, and will determine the exact "East-West" route that the pipeline will take. **The GoI is encouraged to expedite the permitting process to help move the project forward.**

The gas sales agreement is the key commercial agreement for the G4G project, and signing this will be a significant milestone. **It is essential that the PA determines the entity responsible for gas purchases, and commences negotiations on the gas sales agreement as soon as possible**. This entity will need to be credit worthy and this path is time critical; a gas agreement is needed by Q2/Q3 2018 for Israeli permitting purposes and as a necessary pre-condition for building the pipeline. It is also necessary to unlock private sector investment in Gaza's generation capacity.

Establishing a commercially viable and sustainable electricity sector in Gaza is fundamental to improve energy security in Gaza, and will be required for the gas sales agreement to be concluded as part of the G4G project. This requires significant improvements in revenue collection. The PA's plans to roll out a pilot project for smart meters is a step in the right direction but more needs to be done, including investing in both the transmission and distribution infrastructure, to minimize losses, and improving GEDCO's collections. Ensuring that GEDCO is run as a transparent, commercial, credit worthy entity is essential. The cost savings generated by connection to natural gas will support these efforts, by improving the profitability and viability of the power sector in Gaza.

Donor support will be required in the short to medium term, and the international community is encouraged to provide financing for the gas pipeline, and to support improvements to collection rates (including through enforcement for non-payment) and the transparency of the cash flow cycle in Gaza. The entire pipeline is expected to cost ~$70-100 MUSD, and some donors have already committed financing towards this. The initial capital expenditure required for the pipeline is relatively small compared to the savings it will generate, which will reduce donor dependence and improve sustainability in the long term.

WATER

The primary long-term focus of the international community and the OQ for improving water supply to Gaza is to construct the Gaza Central Desalination Plant (GCDP). Shorter-term interventions are also necessary to address the current supply gap of over 100 MCM per year. Current immediate-term projects include the bulk purchase of water through the Red Sea-Dead Sea agreement, additional short-term purchases from Israel, as well as improvements in wastewater treatment and reuse.

Since September 2016, there has been no improvement in the water supply in Gaza. Water from the Coastal Aquifer is unusable without treatment, while there is only limited access to reliable,

alternative sources. The first phase of the Gaza Central Desalination Plant (GCDP) will provide an additional 55 MCM/year.

The tender documents for the GCDP will be ready in August 2017. The bidding process will commence in September 2017, with the proposals being evaluated by January 2018. Construction is scheduled to start in March 2018. Since the last AHLC, the PWA has completed the Donor Handbook (March 2017) and efforts have been intensified to ensure sound governance for the project. Work to secure the land for the plant's construction have started in April 2017. The key next steps include securing the land for the off-site PV plant, ensuring that the plant has the required electricity supply, and **completing the arrangements to allow access for materials the GoI classifies as "dual use"**.

It is essential that the GCDP should be supported by a robust business model. This will ensure the project`s commercial viability. Currently, there is a 35% shortfall in the funding and construction of the GCDP and its associated works. Its operational costs will be partly subsidized for the first five years. To ensure the project's institutional and financial sustainability in the long-term, PWA must continue to move forward on implementing the roadmaps for the establishment of strong regional water utilities as well as the National Water Company. This company will be responsible for managing the GCDP once it is operational and for selling the desalinated water to the municipalities. PWA is preparing a phased cost-recovery mechanism for the Gaza Strip, as well as a broader financial model that includes a detailed strategy for non-revenue water.

In order to demonstrate its financial sustainability, the GCDP business model needs to be completed by the time of the next AHLC meeting (September 2017). The implementation of cost-recovery mechanisms, the completion of tariff regulation, the adoption of a unified tariff, the development of regional water utility regulation, as well as regulation for abstraction and licensing are all important components that are part of the broader water sector reform, and will contribute to creating a financially viable water sector.

Implementation of the Red Sea Dead Sea Project will yield 10 MCM a year for Gaza. The parties have already agreed the quantities and connection points for Gaza and should reach an **agreement on pricing and outstanding infrastructure issues at the earliest opportunity in order to advance implementation of the Red Sea-Dead Sea Project. In the interim, to meet its immediate needs, Gaza requires additional bulk water imports from Israel.**

Almost 40% of the water currently supplied through Gaza's water network is lost due to leakages and network inefficiencies. As part of the Palestinian Water Strategy 2017-22, the PWA will produce a strategy to reduce nonrevenue water.

The Palestinian Authority also faces a major challenge in halting the flow of raw or partly treated sewage from Gaza into the Mediterranean Sea. This problem needs to be tackled urgently: currently more than 90,000 cubic meters of sewage is released into the sea each day. Four wastewater treatment plants are currently under construction in Gaza. A reliable electricity supply will be required to ensure their viability.

In the West Bank, the target is to ensure that no wastewater goes untreated and half the total volume is reused in agriculture. **The parties and donors are encouraged to intensify their activities In the West Bank in order to advance water supply and wastewater treatment and reuse projects.**

Introduction

The conflict between Israelis and Palestinians can only be brought to an end through a negotiated final status agreement. However, in the interim, in order to benefit Palestinians (and indirectly Israelis) and to support (not supplant) renewed final status negotiations, it is essential that progress be made on the ground now. Economic progress is central to improving the daily lives of Palestinians and can support greater independence; however, it cannot replace final status negotiations. A range of other reports have been published in advance of this AHLC – the World Bank report focuses on broader Palestinian economic development, the International Monetary Fund (IMF) report on Palestinian macroeconomic and fiscal issues, and the United Nations Report analyzes the impact of ten years of closure and division on the socio-economic situation in Gaza. In turn, the Office of the Quartet's report focuses on those sectors which provide a transformative or multiplier effect for broader outcomes.[1] This report focuses on progress since the last AHLC in September 2016 in two key sectors, energy and water, which are essential for the wellbeing of Palestinians and a prerequisite to economic growth. The report highlights challenges in implementing key initiatives and sectoral solutions, and identifies the key next steps that are now required. In order to ensure continued economic progress, it is necessary that the large-scale infrastructure projects can be kept running over the long term. It is therefore important to focus on their operation and maintenance as well as their construction. Commercial viability is central. The Annex to the report also provides a less detailed summary of key developments in the areas of Telecommunications, Rule of Law, Movement and Trade, and Economic Mapping. The report covers the period up to April 21, 2017.

Energy

1. Energy security[2] is essential for addressing humanitarian needs and enabling basic services, including water and healthcare. It is also key for enabling sustained economic growth and is essential for businesses to function effectively. Without this, the Palestinian economy will not be able to move from donor dependency to private sector-led economic growth.
2. Lack of access to reliable, affordable energy remains a major impediment to development in the Palestinian Territory. The energy crisis in Gaza continues, with ongoing shortages in power supply

[1] OQ's mission statement is "Building the State, Empowering the Economy". OQ works with all involved parties and actively seeks the support of the international community, as well as the domestic and international private sector in support of Palestinian institutional development, economic growth and empowerment. Together with the international community, OQ supports the key agreements reached between the parties. OQ's key focus areas include infrastructure (energy, water, telecoms), rule of law, and movement and trade.

[2] Energy Security is defined by the International Energy Agency (IEA) as - *the uninterrupted availability* (i.e. **reliability***) of diverse energy sources at an* ***affordable*** *price*. A key aspect of energy security is **sustainability**. A secure and sustainable sector is one that can meet the needs of the population in the long term, is financially viable, and is based on cleaner forms of energy (gas, renewables, etc.), while also being able to address short-term changes in the supply-demand balance. (http://www.iea.org/topics/energysecurity/subtopics/whatisenergysecurity/)

resulting from limited generating capacity, weak infrastructure, insufficient collection of payments for power, and restrictions on the entry of materials into Gaza. During periods of high demand for power, such as in the height of summer and winter, shortages can become particularly acute. The energy crisis in Gaza further deteriorated in early 2017, with power supply falling from an average of eight-to-twelve hours a day to just four hours a day, and blackouts lasting from twelve to twenty hours at a time. This has resulted in discontent that is further destabilizing Gaza. The fragility of the present power situation is unsustainable and illustrates the urgency with which both immediate and long-term solutions must be implemented.

3. The West Bank has until now been dependent upon electricity imports and the PA has lacked control over the sector, including over generation and transmission. This limits the potential for development and long-term sustainability. With no substantial generation capacity, Palestinians are reliant upon the Israel Electric Company (IEC) for 95% of electricity imports. In addition, power is also imported from Jordan to Jericho via a medium-voltage feeder line. During periods of high demand there can be significant deficits in supply, resulting in power shortages. However, following the laying of the cornerstone for the Jenin Power Plant in late 2016, there has been some movement toward increased domestic generation in the West Bank. Since the Jenin Power Plant is not expected to be fully operational until late 2019 or early 2020, short to medium-term solutions will also be necessary.
4. **It is essential that all actors, including the parties and the international community, work together to establish a comprehensive solution to improve energy security in both the West Bank and Gaza. This requires the creation of an economically viable sector through fundamental improvements to generation, transmission, distribution and revenue collection for electricity supply.**

Electricity Agreement Implementation

(A) Background

5. The implementation of the electricity agreement, "Principles for financial clearance, resolution of the Palestinian electricity debts and establishment of a new energy market in the Palestinian sector" (hereafter referred to as "the agreement"), which came into effect in September 2016, is a significant achievement by the parties. If implemented in full, it will transfer substantial control of the sector from Israel to the Palestinians. It is expected that this will bring greater efficiency to the sector and support the establishment of a sustainable and economically viable Palestinian electricity market, resulting in reduced reliance upon donor aid.
6. At the heart of the agreement is a new power purchase agreement (PPA) to be agreed between the Palestinian Electricity Transmission Company Ltd. (PETL), the state-owned transmission company, and IEC. The new PPA will be the key agreement governing the commercial relationship between PETL and IEC going forward, and will establish a single buyer model in the Palestinian electricity market. Once the PPA is signed, PETL, the state-owned transmission company, will assume control over a meaningful portion of the transmission network. This will provide the basis for it to become an economically viable institution and will give the PA greater control over the electricity sector. It was initially expected that the PPA would be signed by mid-March 2017, six months after the signing of the electricity agreement. While progress has been made with the negotiations since September, the target date for signing the PPA has been extended. **It is crucial**

that the PPA is concluded in a timely manner. This will unlock progress for the sector as a whole, including the items identified below. The parties are strongly encouraged to sign the PPA as soon as possible and no later than the September 2017 meeting of the AHLC in New York.

7. In parallel to the PPA negotiations, power sales agreements (PSA) are being negotiated with each of the electricity distribution companies (DisCos)[3] to enable the onward sale of power and distribution to end-users. A new lower tariff for electricity is to be established as part of the PPA and PSA negotiations. This is expected to bring significant cost savings to the PA and Palestinian consumers, which currently pay among the highest prices for power in the region. Until the new tariff has been agreed between PETL and IEC, the exact level of savings will remain unclear. The new agreements, together with the establishment of escrow accounts[4] between the various contracting entities, will help ensure that a transparent and accountable payment cycle is established.
8. It is vital that these key commercial agreements are sustainable and viable in the long term. They should be supported by a comprehensive approach toward sectoral development. Revenue collection for electricity is a long-standing issue in the Palestinian Territory, particularly in Gaza but also in the West Bank. Although improvements have been made in recent years, a wide range of measures must be taken to address this issue, increase transparency and, ultimately, ensure fiscal sustainability. This will prevent the build-up of further debt to the IEC and support greater private sector engagement with the power sector.

(B) Implementation Plan

9. The agreement specifies deadlines for the various entities involved in the process: these need to be met for the process to be successful. This is particularly important in regard to the PPA negotiations, given that significant steps need to be taken to improve the commercial viability of the sector. Upon signing the agreement, the PA needed to quickly assess its preparedness for assuming significant additional responsibilities over the sector and the steps that it would need to take to put these in place.
10. In October 2016, the Palestinian Energy and Natural Resources Authority (PENRA) requested the OQ to support its efforts to develop a detailed and sequenced implementation plan for establishing an economically viable Palestinian electricity market in the West Bank.[5] The plan was completed in March 2017 and presented at a donor event by Prime Minister Rami Hamdallah.[6] The plan identifies what actions need to be taken for the agreement to be implemented and highlights where the international community can play an initial role in supporting the PA. The plan includes the main milestones, the timeframe in which these need to be achieved, as well as

[3] Distribution Companies, DisCos, are in charge of distributing electricity to end-consumers. Currently, there are five distribution companies with operations in the West Bank: HEPCO (Hebron Electric Power Company), JDECO (Jerusalem District Electricity Company), NEDCO (Northern Electricity Distribution Company), SELCO (Southern Electricity Company Ltd), TEDCO (Tubas Electricity Distribution Company). One DisCo is operating in Gaza: GEDCO (Gaza Electricity Distribution Company).

[4] The escrow accounts hold money for a third-party on behalf of transacting parties. In this context, escrow bank accounts were established by each of the West Bank Distribution Companies (DisCos), local municipalities and PETL. The system is designed to help ensure that electricity payments by end-consumers reach the electricity supplier, the IEC.

[5] The Implementation Plan was developed in conjunction with PwC.

[6] http://www.quartetrep.org/page.php?id=5e68c6y6187206Y5e68c6

potential risks and mitigation measures. The OQ will continue to support the PA in implementing the agreement, acting as a facilitator with the relevant parties throughout its implementation.

11. The plan primarily covers the transitional period, from the beginning of 2017 to the end of 2018, after which the sector should transition into a more sustainable and economically viable position, with reduced reliance upon donor aid. The priorities for the latter phase, from 2019 onward, will be to ensure that a fully integrated Palestinian electricity network is established and that there is increased investment in generation, transmission and distribution of electricity.
12. The key areas of the implementation plan are summarized below:
13. **Substations:** Four substations, which will form a key part of the backbone of the new transmission system, have already been constructed, or are under construction[7] in the West Bank. Once operational, these substations will streamline supply to and enhance the capacity of the Palestinian electricity network. Since energizing the substations transfers control of a meaningful part of the transmission network from the IEC to PETL, it is important that progress is achieved in this regard. Energizing the Jenin substation is an immediate priority. The Jenin substation will add another 40 MW of electricity to northern parts of West Bank, which otherwise may experience electricity shortages during the summer. **PETL and the IEC are strongly encouraged to agree upon the terms to energize the Jenin substation before the height of summer at the latest**. The Nablus and Tarqumia substations are expected to be energized in September 2017, following the signing of the full PPA. The Ramallah substation, which is still under construction, will be energized in August 2018.
14. **Connection Points and Transfer Plans**: In parallel to energizing the substations, the commercial and operational responsibility of the connection points will be transferred from the IEC to PETL. This will help establish an integrated Palestinian electricity grid and will give PETL direct oversight of power consumption and metering, allowing for greater enforcement of revenue collection, thereby ensuring that the terms of the PPA can be met. **For PETL to become operational and fulfill its mandate by constructing the required lines in Area C, the GoI and IEC should provide the required permits and information by September 2017**.
15. **Billing and Monitoring Systems**: Given previous issues regarding payments for electricity consumption, a transparent and accountable invoicing cycle must also be established to reduce the risk of non-payment. This requires the operations of the DisCos to be fully coordinated with PETL. USAID will assist the PA to establish sustainable billing and collection methods for the sale and supply of electricity to the West Bank, and has already committed technical and financial assistance for a billing and monitoring system. PENRA has committed to supporting the DisCos in raising collections by rolling-out smart meters.
16. **Capacity Building**: This is required in a number of key Palestinian institutions, some of which now have expanded responsibilities as a result of the electricity agreement. It is essential that these institutions can fulfil their mandates, particularly with respect to their technical and planning capabilities, to effectively support the sustainability of the sector. The institutions which require capacity building include PENRA, PETL, the Palestinian Electricity Regulatory Council (PERC) and the Ministry of Finance. USAID has recently provided personnel support to the PA to strengthen

[7] Of the four substations, the Jenin substation is complete, Tarqumia and Nablus substations are near completion and it is planned that the Ramallah substation should be completed by August 2018.

its technical and operational capacity. To meet additional capacity building needs, as outlined in the plan, other donors are similarly encouraged to provide support.

17. **Legal and Regulatory**: The last component of the plan covers the legal and regulatory aspects of the agreement, most notably the PPA and PSA, as outlined above. Since negotiation and implementation of the PPA and PSAs requires the involvement of a broad range of stakeholders, internal coordination within the PA is crucial. **It is recommended that a secretariat, consisting of relevant PA officials, is established as soon as possible to support information sharing and coordination between the various Palestinian stakeholders**. Putting this in place will help ensure the successful negotiation of these agreements.
18. The effective implementation of the plan will have wide reaching implications throughout the value chain. It will bring significant cost savings to Palestinian customers, which is crucial, given that nonpayment throughout the value chain is linked in part to the challenging economic conditions in the Palestinian Territory. Implementation of the plan supports establishment of an integrated electricity network with improved infrastructure. This will reduce both technical and non-technical losses and improve the quality of service: this should help improve the rate of consumer payment collection. Furthermore, with greater control of the sector, the PA will be able to improve the regulation of the sector and monitor and enforce payment for power consumption. With strong fundamentals in place, it is hoped that the sector will be able to transition into being commercially viable and sustainable by 2019.
19. An overview of the timeline for key milestones in the Implementation Plan is shown below:

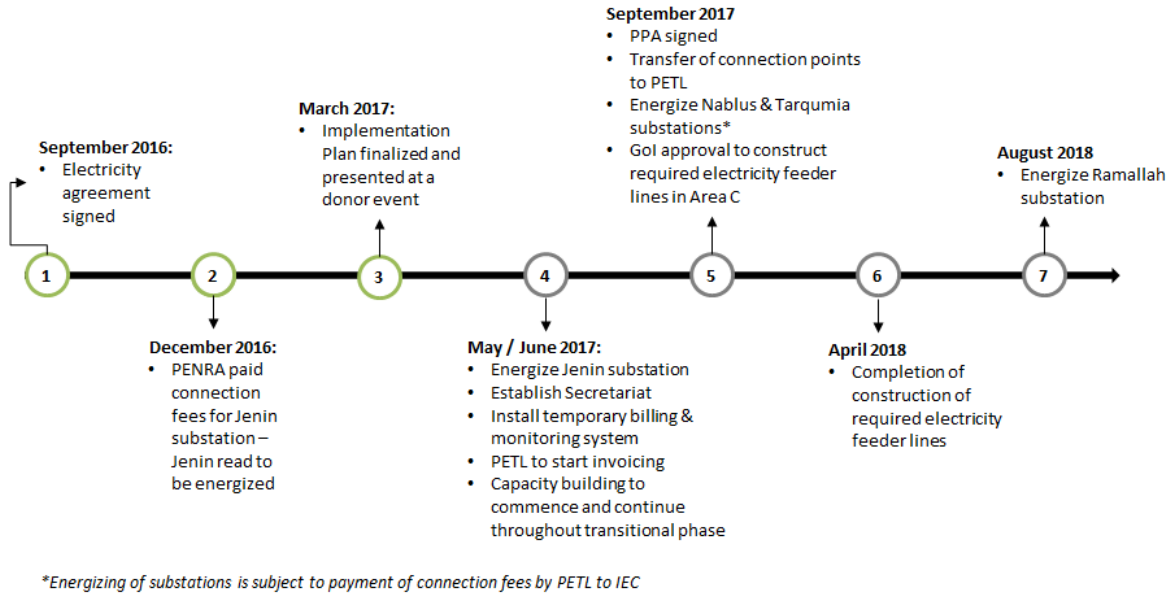


Figure 1: Timeline of Implementation Plan milestones during the transitional phase (2017-18)

20. The total cost of the plan's implementation in the transitional phase is **USD ~36 million**. This covers all the key components outlined above. **Donors are encouraged to provide initial financing to help the PA to cover this amount during the transitional phase. The funding will support the sector's transition to a more sustainable state.** The new agreements are expected to unlock both

public and private investment throughout the electricity value chain, thereby significantly reducing the PA's dependence on donor aid over the medium to long term.

21. The OQ will support the PA in implementing the agreement, acting as a facilitator with the relevant parties throughout the implementation phase. **The international community is encouraged to work with the parties to ensure that the plan is properly implemented in a timely manner.**
22. From 2019 onwards, ongoing investment will be required to further develop the electricity sector across generation, transmission and distribution functions. The private sector should be in a position to play a greater role at this stage. The PA is planning to produce an electricity master plan, building upon its last plan of 2007. This will outline the sector's longer-term priorities and the level of investment required.
23. While the implementation plan focuses on the development of the sector in the West Bank, it is also crucial to outline the priorities and risks for the sector in Gaza. As such, the PA is developing a new electricity master plan for Gaza. This will help ensure a coherent approach towards developing a sustainable energy sector throughout the Palestinian Territory.

Gas for Gaza

Background

24. The Gaza Power Plant (GPP) is currently the only generation facility in the Palestinian Territory. It runs on diesel fuel which is expensive, polluting and inefficient. As demonstrated by the ongoing electricity shortages in Gaza, which have recently worsened, continuing to run the GPP on diesel fuel is unsustainable. While immediate and interim solutions are needed, the power crisis in Gaza cannot be adequately addressed until a long-term solution is in place.
25. The supply of natural gas to Gaza is the only viable long-term solution to Gaza's energy crisis. Natural gas is approximately half of the price of diesel (per MWh generated) and is a more efficient and cleaner fuel for generating electricity. The availability of reliable and cost-efficient natural gas in Gaza will allow the GPP to be converted to gas operations. This will facilitate a significant expansion of electricity generating capacity in Gaza, as well as producing a substantial reduction of costs. Switching the fuel for power generation from diesel to natural gas could **save the PA up to USD 120 million**[8] annually. This will pave the way for the establishment of a more commercially viable and sustainable sector in Gaza.
26. The economic importance of ensuring a gas supply to Gaza extends beyond the conversion of the GPP to natural gas. A stable and sufficient electricity supply will provide the foundation for sustained economic development and investment across a range of sectors and will unlock opportunities for new industries and small and medium-sized enterprises (SMEs). The supply of gas has substantial indirect economic benefits, which will result in a multiplier effect for the Palestinian economy. The construction of the gas pipeline will provide the basis for substantial economic growth, opening up the possibility of making natural gas available in Gaza for other large infrastructure projects (critically, this could include the planned large-scale Gaza Central Desalination Plant), as well as for more energy-intensive industries and improvements to the transportation sector.

[8] Based on operation of the GPP at 140 MW and assumes gas will be taxed at a similar level to diesel

G4G Project Update

27. The PA officially mandated the OQ to establish and lead the Gas for Gaza (G4G) Task Force, which was first convened in August 2015. Shortly after this, during the September 2015 AHLC, the GoI announced its approval in principle for the project. Support from the parties has continued to be forthcoming at the highest level. The G4G initiative, through the formal Task Force platform, brings together all the relevant parties, including the PA and the GoI, to facilitate the agreement and the construction of a pipeline from the Israeli natural gas network to Gaza. The Task Force operates with the close support of the Government of the Netherlands, which has played a crucial role in funding the platform and providing extensive support to the project. G4G is a multilateral initiative, which receives the support and engagement of other actors involved in Gaza.
28. To date, eight Task Force meetings have been conducted and the project has advanced from the conceptual to the implementation stage.
29. In December 2016, the GoI presented its requirements and recommendations for the pipeline and border crossing within the framework of an "East-West Route". This marked the conclusion of technical, commercial and legal feasibility studies. Their conclusion paves the way for the ongoing development of the project during 2017 and beyond. The technical study was conducted by the Dutch engineering firm, Gasunie, which worked on technical requirements in Gaza, and Tahal TMNG, which worked on technical requirements in Israel. The study comprises an extensive analysis of the potential pipeline routes, Israeli and Palestinian security concerns, and associated costs. The commercial and legal feasibility studies identify the optimal commercial and regulatory structures for the project and highlight key issues in their implementation. They also analyze the entire cash-flow cycle, from the wellhead gas price to the retail power price. This will ensure that any gas seller would be comfortable with the commercial structure of the project, particularly: i) the credit worthiness of the gas buyer; ii) that sufficient guarantees, underpinning the gas sales agreement, are in place; and iii) that underlying issues of nonpayment (at different levels of the payment cycle) are addressed. The three studies lay the foundations for the project's implementation in 2017, providing a viable business model for the project and enabling the permitting work-stream to commence within the Israeli system.
30. The official planning and permitting process for the Israeli section of the pipeline commenced in Q2 2017. The Task Force, which includes the Israeli Natural Gas Authority and Israeli Natural Gas Lines (INGL), is working to map out this process, which is expected to take around 24 months in total. This process will also determine the exact East-West route the pipeline will take. **The GoI is encouraged to expedite the permitting process to help move the project forward.** Once this is complete, the engineering, procurement and construction (EPC) phase can commence. The target date for its commencement is 2019. The Task Force is also working with the PA to map out the planning and permitting process in Gaza, which is expected to commence in Q3/Q4 2017.
31. The commercial structure for the project will need to be set up in parallel with the permitting processes, building upon the work undertaken by the Task Force to date. The gas sales agreement is the key commercial agreement for G4G, and signing this will be a significant milestone for the project. **It is essential that the PA determines the entity responsible for gas purchases and commences negotiations on the gas sales agreement as soon as possible**. This entity will need to be credit worthy and the path is time-critical, since a gas sales agreement needs to be advanced by Q2/Q3 2018 for ongoing progress with the Israeli permitting process, and for the EPC stage to

commence in 2019. Progress here will give the private sector the level of comfort it requires to invest in the expansion of generation capacity in Gaza. This investment is necessary to ensure that Gaza's growing demand for power can be met, as Gaza is expected to increase its demand from the current level of 450 MW to 850 MW by 2020, at which point the G4G pipeline is anticipated to be operational.

32. It will not be possible to reach an agreement with a gas supplier unless the project is demonstrably sustainable over the longer term. To achieve this objective the project should not depend on donor aid for its viability. Significant improvements in revenue collection for the payment of electricity consumption are required, given that this underpins the entire value chain. **The PA's plans to roll out a pilot project for smart meters is a step in the right direction but more needs to be done, including investing in both the transmission and distribution infrastructure to minimize losses and to improve GEDCO's collection rate.** It is essential to ensure that GEDCO is run as a transparent, commercial, credit worthy entity, that can interact with international financial institutions. This is also necessary for other essential projects in Gaza, such as the 161 kV line, as outlined below.
33. The underlying economic conditions in Gaza contribute to nonpayment for electricity consumption. Connection to natural gas will bring significant cost savings to end customers which will help address this issue. According to the commercial feasibility study commissioned by the G4G Task Force, a collection rate of 53% will support gas fired power generation at 140 MW, compared to a required collection rate of 83% for diesel fired generation at 140MW. Switching from diesel to natural gas will therefore instantly improve the profitability of the sector.
34. According to the World Bank[9], even the poorest 10% of households can afford basic electricity requirements at present. Nonpayment is therefore not only linked to the challenging economic conditions in Gaza, but also results from the poor quality of service, and lack of enforcement. Ultimately, improvements to collection rates and the transparency of the cash flow cycle are essential to maximize the full potential of switching to natural gas, and to enable electricity generation at a significantly larger scale in Gaza. This, together with the construction of a proper transmission and distribution system, will bring vast improvements to the commercial viability of the sector.
35. **Donor support will be required in the short to medium term. The international community is encouraged to provide financing for the gas pipeline, and to support improvements to collection rates (including through enforcement for non-payment) and the transparency of the cash flow cycle in Gaza**. The entire pipeline is expected to cost USD 70-100 million. A number of donors have already committed financing toward this. The initial capital expenditure required for the pipeline is relatively small compared to the savings it will generate. Donor support, in parallel with PA reform to develop the energy sector, is crucial to get a large-scale infrastructure project such as G4G off the ground. Ensuring that a robust commercial framework in place is necessary for the project to be sustainable and economically viable in the longer term, and for the private sector to play a greater role in Gaza.

[9] World Bank, 'Securing Energy for Development in the West Bank and Gaza': presented to the international community in December 2016; currently unpublished

Other interventions in the power sector

36. Resolving the energy crisis in Gaza requires a holistic approach to the sector's development over both the short and longer term. The severity of the energy shortage in Gaza has mobilized donors – most recently the Government of Qatar and Government of Turkey – to provide additional diesel to the power plant to expand its capacity beyond 60 MW. While this is necessary in the short-term, particularly during periods of peak demand, running the power plant on expensive diesel fuel is unsustainable. As of mid-April 2017, the GPP ceased its operations, resulting in further power shortages. This demonstrates the urgency with which sustainable solutions must be implemented.
37. The planned 161 kV line from Israel to Gaza, which was announced at the September 2016 AHLC, is expected – in the first stage – to provide an additional 25 MW of power in the coming year. As discussed further in the following section on water, some of the additional power should be dedicated to the NGEST plant, helping to address chronic wastewater issues in Gaza. As a first step, immediate progress is made on the implementation of the initial 25 MW. In the longer term, the 161 kV line is expected to deliver 100 MW by 2020 and, by replacing old distribution lines, will improve the quality of power delivered. This will reduce technical losses and improve the collection of electricity payments. The project plays a crucial role in supporting other initiatives, including water infrastructure and Gas for Gaza. Progress towards implementation has been slow to date and is linked to the challenge of ensuring the viability of the sector as a whole. The Palestinian and Israeli parties are encouraged to redouble their efforts to address the present challenges and start the project's development as soon as possible, especially as there are solutions available to support the commercial feasibility of this project. Donor support will also be necessary to support the implementation of the 161 kV line.
38. Significant upgrades are required to the grid, both to increase its capacity and interconnectivity and to reduce technical losses over existing lines. To achieve this, substantial investment is required over the coming years. The PA has recently embarked on the development of an electricity master plan for Gaza. This will help prioritize investments in the sector and identify any gaps, including areas where initial donor support might be required.
39. In the West Bank, increasing power generation capacity remains a sectoral priority. Some progress has been made on the Jenin Power Plant: the permitting process for the pipeline is underway, and the commercial negotiations for the sale of gas to the Jenin Power Plant are advancing. It is expected that electricity from the Jenin Power Plant will be stepped down through the Jenin substation, which is why it is crucial that progress on this project is made in parallel with the implementation of the electricity agreement already examined in detail above.
40. The development of renewable energy needs to be encouraged in both the West Bank and Gaza, particularly solar photo-Voltaic, given its suitability to the region. The PA has made good progress on a number of solar projects, and is encouraged to support development of additional generation, both at the commercial and household scale. A number of international donors, for example, USAID and the World Bank, are supporting the PA in developing the renewable energy sector. This will help pave the way for increased private sector involvement and reduce reliance upon external funding. The PA is seeking to foster private sector involvement in renewable energy. It issued a presidential decree in 2015 that was designed to attract investment in renewables and improve energy efficiency in the Palestinian Territory. By adopting energy efficiency measures,

the PA will be able to more effectively manage demand and reduce Palestinian requirements for energy imports. This will bring cost savings to the sector and support its longer-term sustainability. The PA is encouraged to take further measures to improve energy efficiency in the West Bank and Gaza, given that such measures generally yield effective results, are low cost and easy to implement.

41. The measures described above, if properly implemented, will improve energy security in the Palestinian Territory and provide a solid foundation for building a sustainable energy sector. By providing fiscal certainty and a sound regulatory environment, these measures will stimulate significant private sector engagement that will lead to increased economic growth.

Water

42. Facilitating viable infrastructure, including water infrastructure, is a key part of the OQ's mandate to support the economic development of the Palestinian Territory.[10] The OQ supports the creation of strategic water infrastructure in both Gaza and the West Bank, as access to clean water contributes significantly to Palestinian economic growth.[11] The OQ continues to work with other partners to ensure a sectoral solution in the water sector, while also focusing on particular infrastructure projects that are core components of that comprehensive solution, including the elements identified in the National Water Sector Strategic Plan and Action Plan 2017-22.
43. Since September 2016 there has been no change in water availability in Gaza.[12] Water from the Coastal Aquifer is unusable without treatment, while access to alternative reliable sources is limited. The West Bank also faces major challenges in providing potable water and treating wastewater. The establishment of infrastructure to provide and treat water in the Palestinian Territory must be accompanied by the policies and practices required to create a commercially viable water sector. The creation of a sustainable water sector includes the accelerated restructuring and reform of water sector institutions as prescribed by the 2009 Action Plan for Reform of the Palestinian Water Sector, the 2014 Water Law and the 2016-18 Water Sector Reform Plan. This includes supporting PWA with the implementation of the roadmaps for the establishment of strong regional water utilities as well as a National Water Company. **The international community should support the advancement of both roadmaps for the implementation of regional utilities and the National Water Company through technical assistance.**

Gaza

44. Gaza's two million inhabitants face a continuing water crisis. As most water sourced from Gaza's Coastal Aquifer is saline and polluted, the provision of drinking water is effectively limited to sale

[10] See World Bank Report, "Assessment of Restrictions on Palestinian Water Sector Development," April 2009.
[11] US EPA 'Drinking Water Infrastructure Needs Survey and Assessment,' April 2013. It is estimated that one dollar invested in water and sewer infrastructure increases private output (Gross Domestic Product, GDP) in the long term by USD 6.35, suggesting the broader economic impact of water projects such as the Gaza Central Desalination Project could be as high as USD 3.1 billion.
[12] See World Bank Report 'Water Situation Alarming in Gaza;' UNRWA's 'Gaza Situation Report 178;' and Gisha's publication: 'Hand on the Switch'.

by private vendors, bulk water sale from Israel's Mekorot company, and the recently partially operational Short Term Low Volume Desalination plant. The long-term measures underway to address the water and sanitation crisis include the construction of a large-scale desalination plant and further development of the wastewater treatment infrastructure. These efforts are part of the PWA Comparative Study of Options for an Additional Supply of Water to the Gaza Strip (CSO-G). If all the interventions identified in the CSO-G are implemented, they will help to address the water crisis in the long term.

45. Based on water demand projections for 2020[13], there is a safe supply gap of 130 MCM/year. The fulfillment of all planned interventions will increase safe supply from 66.4 MCM to 160 MCM/year, or by 80%. This would leave a deficit of 37.9MCM/year, which should be fulfilled through alternative sources, such as direct supply from Israel or other regional cooperation projects.

Figure 2a: Gaza Water Sources 2015

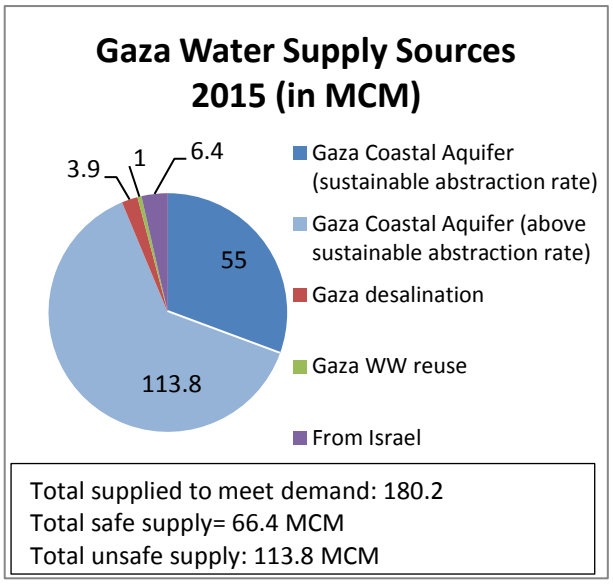
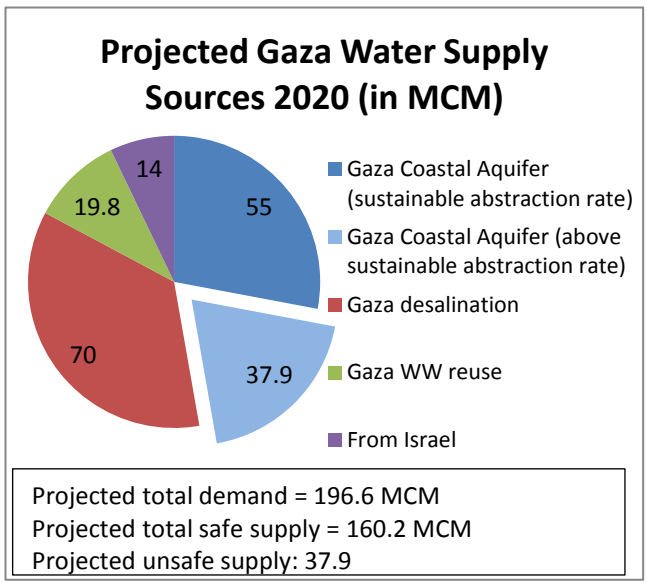


Figure 2b: Projected Gaza Water Sources 2020[14]



46. As already identified in the previous section on energy, the sustainable supply of energy remains a key barrier to addressing both potable water and wastewater treatment in Gaza. The absence of a reliable energy supply prevents the water infrastructure from working in a reliable manner. The total energy demand for Gaza's water and wastewater infrastructure is approximately 36.1 MW. This gap is expected to increase to at least 136 MW[15] by 2035. **To begin to address the present water crisis and to create a commercially viable water sector, the parties should accelerate progress in implementing the 161 kV line announced at the September 2016 AHLC**. To date, progress in implementation has been slower than originally hoped. Timely

[13] Estimates are based on an annual domestic consumption growth rate of 3% and a decline in agricultural water use.
[14] Source: PWA 2015.
[15] According to PWA report: "Gaza estimated Power Needs for Water and Wastewater Facilities"

implementation would provide an additional 25 MW of power in the coming year, a portion of which would be dedicated to Northern Gaza Emergency Sewage Treatment (NGEST) Project.

Short-term water supply measures

Red Sea-Dead Sea (RSDS) Allocations and Additional Bulk Water Supply

47. Much of Gaza's population is without reliable drinking water at present and as such there is a need to import additional bulk water from Israel as an interim measure until planned interventions advance. This should start with the 10 MCM as agreed in the framework of the "Memorandum of Understanding on the Red Sea-Dead Sea Water Conveyor Pilot Project," signed by the GoI, Jordan and the PA on December 9th, 2013. The parties agreed on the allocation and sale of 20-30 MCM/year of potable water from Israel to Gaza and the West Bank. Under the agreement, 20 MCM per year would be available to the Palestinian population in the West Bank, while 10 MCM would be used to serve Gaza. Infrastructure upgrades in Gaza, designed to receive an extra 10 MCM, need to be considered a priority by all parties. This is necessary in order to implement the agreement and to provide adequate drinking water in the immediate term to approximately 340,000 Gazans. There has been some progress to date, as the parties have agreed on the issue of quantities of supply and connection points to Gaza. The operation of the German funded Al-Montar reservoir is a first step in improving supply. This will enable Gaza to immediately receive an extra 5 MCM through the Nahal Oz connection point, once an agreement has been reached regarding the RSDS.[16] In addition, following the completion of the design for the expansion of other connection points, tender documents are currently under preparation: PWA is seeking financing for the infrastructure required to provide the Eastern villages, Middle area and Rafah with another 5 MCM. The next step is to identify the infrastructure upgrades needed on the Israeli side in order to provide the 10 MCM allocated within the Red Sea Dead Sea Project. The Palestinian position on this is that this water has been allocated within a framework of regional cooperation and its price is therefore distinct from the water supplies that are defined as "additional quantities" within the Interim Agreement. However, since the GoI considers this allocation to be part of the "additional quantities", it will first be necessary to close the gap between these contrary positions to facilitate agreement on pricing. Advancing the immediate implementation of the Red Sea Dead Sea Project requires that the parties reach an agreement on pricing and outstanding infrastructure issues as soon as possible.
48. Short-term measures to provide potable water to Gaza are required urgently. There is a need for increased water import to Gaza beyond the planned 10 MCM allocated through the Red Sea Dead Sea Project. Amidst decisions on infrastructure upgrade and water pricing for the Red Sea-Dead Sea water allocations, Gaza needs bulk water import from Israel as an interim measure and until medium and longer term planned interventions advance.
49. The import of water into Gaza needs to be supported by ongoing efforts to reduce nonrevenue water. Almost 40% of water supplied through Gaza's water network is lost due to leakages and network inefficiencies. PWA will present its nonrevenue water reduction strategy, and the

[16] The operation of the reservoir brings the total capacity of the Nahal Oz connection point to 12 MCM.

financing required over the coming year for its implementation, to the donor community as part of the National Water Sector Strategic Plan and Action Plan 2017-22.

Low-volume desalination facilities

50. Under the auspices of PWA, the EU and UNICEF, the first phase of a Short Term Low Volume (STLV) Desalination facility in Gaza was inaugurated in January 2017. It produces 2.1 MCM/year, serving 75,000 people in Rafah and Khan Younis. Following the completion of the second and third phases of this project, which will be implemented simultaneously, the STLV desalination facility will produce 7.3 MCM/year by 2020, serving 250,000 Gazans. The EU has committed funding for the plant's second and third phases, set to begin in 2017. In total, the three phases will provide 6% of Gaza's overall domestic water needs by 2020. In addition, other low volume desalination facilities, implemented by USAID and the Islamic Development Bank will address another 4.7% of water needs by 2020.
51. Sustaining the STLV requires reliable energy supply, as well as funding for operation and maintenance costs. The total energy needed to operate phase one of the plant is 1.5 MW, while the completed project requires 4 MW. At the time of writing, however, power is not being transmitted through the available grid connection, and the plant is running at a minimal capacity of 2-3 hours a day using back-up generators. Running the plant for fewer hours a day would degrade the facility to the point where it might not be able to continue to function. The successful operation of this facility on a commercial basis is not only important for the people of Gaza but is also essential for increasing donors' confidence that large-scale infrastructure projects, including the Gaza Central Desalination Plant, are viable solutions for Gaza.

Long-term water supply measures

Gaza Central Desalination Plant

52. The Gaza Central Desalination Plant (GCDP) remains a central element in the efforts to alleviate Gaza's water crisis. The first phase of the plant will provide an additional 55 MCM/year water supply to Gaza. The technical components of the plant and its associated works include:
    a. The construction of the desalination plant and the necessary power facilities (onsite power plant, on-the-roof PV plant, and offsite on-the-ground PV farm and wind turbine generators) in addition to the grid connection and the connection with gas pipe line
    b. The construction of a 43-kilometer North-South water carrier, including storage reservoirs, pump stations and pipelines designed to transfer the desalinated water to blending reservoirs and to users.
    c. A project to reduce nonrevenue water, including better tariff restructuring and collection and the enhancement of system efficiency in order to reduce physical and financial losses.
53. Subject to the timing of the donor conference (paragraph 55), the tentative schedule for the GCDP key milestones is as follows:
    a. Tender documents will be ready in August 2017.
    b. The bidding process will start in September 2017.

c. Proposals will be received and evaluated by January 2018 and the construction will start in March 2018.

54. The construction phase will take a minimum of three years. The entire system, including the desalination facility and associated works, is expected to be operational by March 2021 at the earliest. The Engineering Procurement Construction contracts will include operation and maintenance of the desalination plant for a period of five years.
55. The total capital cost of the desalination plant and associated works, as outlined above, is estimated to be EUR 562 million,[17] with the annual operational cost for the desalination facility being in the range of EUR 30-75 million, depending on the available energy supply options (electricity, natural gas, or diesel). The operation and maintenance costs of the remainder of the water supply system (comprising water production from the other sources, transmission and distribution, pumping, storage and blending stations, and overhead costs) is estimated to be EUR 35 million annually. Therefore, the total OPEX at the end of the project's implementation is expected to range between EUR 65 million and EUR 110 million. The operation costs of the plant will be subsidized for a period of five years. Depending on the energy source,[18] the total subsidy will range between EUR 54.5 million and EUR 92million,[19] of which EUR 46 million is budgeted as part of the total project cost. The remainder will be subsidized by the Palestinian Authority. Until a more commercially viable sector is developed, the continued subsidy by the government of the OPEX may be required to ensure that the water supply is affordable for local households.
56. The European Investment Bank and the World Bank financed the preparatory feasibility studies for the Gaza desalination project. The Islamic Development Bank and the European Union committed funds for the implementation of the GCDP project. USAID has financed associated water infrastructure in Gaza. Other countries such as France and Algeria have made their intention known to pledge funds for the project. Nonetheless, there is an estimated funding gap of 35% for the plant and its associated works. In March 2017, PWA finalized the project's Donor Handbook which provides background on the crisis, detailed technical information and detailed information on costs and financing. A number of immediate steps need to be taken before a donor conference can be held for this project, as highlighted below (paragraphs 57-62):
57. For the advancement of this project, it is first critical to finish securing the land previously defined and dedicated for the construction of the desalination plant. A contractor was recently hired to fence the site for the GCDP. Fence construction and land reclamation started in April 2017. The entry of material to construct the fence is essential to secure the site. The GoI is requested to provide timely clearance for the entry of required materials.
58. Second, the parties involved must ensure the provision of electricity for the desalination plant. The Palestinian Authority is working on three parallel tracks to guarantee that these needs are met:

[17] This figure results from updating the budgets of the Desalination Plant from EUR 270 to EUR 302.5 million, the Contingencies from EUR 25.1-26.8 million and eliminating the TF management costs with EUR 12.6 million.
[18] The GCDP OPEX cost depends on the availability of energy sources: the lowest OPEX cost is based on consistent gas and electricity supply and estimated at EUR 31million a year, the OPEX cost based on electricity is EUR 34 million a year, for gas only it is EUR 37 million a year. If the GCDP is dependent on diesel, the OPEX cost will amount to EUR 74 million a year.
[19] The subsidy will cover OPEX costs the first 50 m3/year of all households' consumption. This subsidy will vary from EUR 10.9 million a year to EUR 18.4 million a year, depending on the which of the various scenarios for energy is realized (see figure 10 in the Donor's Handbook). As it is foreseen that the subsidy will be required for five years, the total subsidy required will range between EUR 54.5 million and EUR 92 million.

a. Increase the supply of electricity imported from the IEC through the 161 kV line, which can potentially deliver an additional 25 MW in the coming year, and ultimately more than 100 MW. As outlined in the Energy Section of this report, rehabilitation of the electricity grid in Gaza must be pursued in parallel to these projects, and improvements to the collection of payments for power are needed to ensure that these projects are commercially viable and sustainable in the long term.
b. Expanding the generation capacity of the Gaza Power Plant following connection to natural gas via the G4G pipeline, as outlined above. The gas pipeline is scheduled for completion in 2020.
c. Ensure the viability of a renewable energy source. The renewable energy component of the project, including on and offsite Photo Voltaic plants, in combination with wind turbines, would together cover 15% of the total energy needs of the facility. The land for the offsite Photo Voltaic (PV) plant was allocated by a presidential decree but could not be accessed. Discussions continue on whether to move ahead with the designated land or whether it is more practical to allocate another, separate piece of land for the PV plant. A decision should be made in this regard prior to the donor conference.

59. **The arrangements for allowing access to the Palestinian Territory for materials the GoI classifies as "dual use" must be finalized prior to the donor conference**. PWA, with the support of UNOPS and the OQ, started discussions in March 2017 with the GoI to agree on a mechanism that would enable the timely and predictable entry of materials and adequate monitoring of plant construction and operation. Further meetings are to be held between the parties to discuss the details of the mechanism and agree on the main topics that will impact the Engineering Procurement Construction contracts, so the necessary provisions can be included in the tender documents.
60. **Since the last meeting of the AHLC, the project's governance efforts have been intensified. The governance architecture for the project was approved in October 2016**. This includes a PA Inter-Ministerial Steering Committee[20], an international coordination committee facilitated by the Union for the Mediterranean, and a Task Force of the project's core stakeholders facilitated by the OQ. The Task Force was first convened on February 25, 2016. Since then, the parties have worked to resolve key outstanding issues in the project. The next Task Force meeting is envisaged for May 2017. The corresponding terms of reference for each of the components of this architecture are being developed with the support of the EU. The first drafts of the terms of reference are scheduled for completion in May 2017, with final versions to be ready by the end of June 2017. The Inter-Ministerial Steering Committee is expected to address cross-cutting decisions related to the project and to advance the outstanding issues related to project implementation, including the provision of land and energy. A cabinet decision is now needed to instate the Inter-Ministerial Steering Committee.
61. To ensure the project's institutional and financial sustainability over the long term, PWA must continue to develop the regulatory framework for the establishment of the National Water Company, which will have responsibility both for managing the GCDP once the plant is operational

[20] The Steering Committee is chaired by PWA, and includes representatives of the Prime Ministers' Office, the Palestinian Energy Authority, the Ministry of Finance and Planning, the Environmental Quality Authority and the Ministry of Civil Affairs.

as well as for selling the desalinated water to the municipalities. PWA is in the process of developing the transitional bylaw for the establishment of the National Water Company.

62. In parallel, to ensure the long-term operational and financial sustainability of the plant, it will be necessary to implement the project's business plan. PWA, with financial assistance from the World Bank, is preparing a phased cost-recovery mechanism for Gaza, as well as a broader financial model that will include a detailed strategy to deal with non-revenue water. **The GCDP business model should be complete by the time of the next AHLC meeting, in September 2017, in order to demonstrate the financial sustainability of this project. It is necessary for the GCDP business model to include the implementation of cost-recovery mechanisms, the completion of tariff regulation, the adoption of a unified tariff and the development of regional water utility regulations, as well as regulation regarding abstraction and licensing. Advancing these components are important in creating a financially viable water sector.**

Gaza Wastewater Treatment

63. To alleviate Gaza's water crisis, parallel efforts are needed to confront the more than 90,000 cubic meters of raw or partially treated sewage that flows from Gaza into the Mediterranean Sea each day.[21] The potential for a humanitarian crisis in Gaza is exacerbated by sewage contamination of the groundwater supply, which results from insufficient operation of Gaza's sewage treatment plants due to the lack of regular electricity supply. The World Health Organization reports that contaminated water and the lack of sanitation are currently responsible for 26% of all disease in Gaza.[22] Four wastewater treatment plants (the Northern Gaza Emergency Sewage Treatment Plant, the Khan Younis Wastewater Treatment Plant, the Central Gaza Wastewater Treatment Plant, and the Rafah Wastewater Treatment Plant) are planned and under implementation. Contracts for the Central Gaza Wastewater and Khan Younis Treatment Plants have recently been signed to start construction. When operational the four plants will treat up to 48.8 MCM of sewage per year in a first phase and 91.2 MCM per year in the second phase. The long-term viability of these projects requires reliable electricity supply. The total energy needed to power the water and wastewater sectors in Gaza is 36.1 MW, which is expected to increase to 136 MW by 2035. The status of the four major sewage plants and the challenges each face are outlined below.
64. The Northern Gaza Emergency Sewage Treatment plant (NGEST), supported by the World Bank Trust Fund and the French Development Agency, in the Beit Lahia area should be complete by end 2017. **NGEST's operation, however, is dependent on the implementation of the first phase of the 161 kV line and establishing a connection from this source to the NGEST facility**. Advancing the 161 kV line requires that both the finances for infrastructure on the Israeli side are secured and that monthly electricity costs are met. Meeting this cost requires the creation of a commercially viable water sector in Gaza. Furthermore, there remains a financial gap of USD 21 million for the upgrade of the treatment plant. This includes the cost of equipping the plant with solar power (USD 8 million). **As World Bank financial support for the project is scheduled to end by December 2017, the parties should accelerate their efforts to finalize an agreement on energy provision**.

[21] United Nations, "Gaza in 2020: A livable place?".
[22] The World Bank, "Assessment of Restrictions on Palestinian Water Sector Development", April 2009.

65. The wastewater treatment plant in Khan Younis is financed by the Japanese government and the Kuwait Fund for Arab Economic Development through the Islamic Development Bank. The project is expected to be complete by 2019. One year of operational expenses are included in the project's costs.
66. The German government is financing the construction of the Central Gaza Wastewater Treatment Plant. Solar energy infrastructure has been integrated into the plant's design to help ensure consistency in supply. Construction is expected to start in 2017, with completion scheduled for 2020. The GoI is requested to provide timely clearance for the required equipment and to facilitate the entry of the materials for construction.
67. Rafah's wastewater treatment plant is currently operational. Due to severe energy shortages, particularly in summertime, sewage is often piped untreated into the Mediterranean Sea. The Japanese government has provided finance of USD 1.2 million to add solar energy infrastructure to the treatment plant in order to expand its operation. This initiative will be completed by 2018.

West Bank

68. The quantity and quality of water available to the Palestinian population of the West Bank is better than that in Gaza, however, in many locations water supply does not meet the 100 liters per person per day minimum set by international standards. The average per capita consumption of water in the West Bank is 79 liters a day. In many localities, for example, in the southern area of the West Bank, actual consumption rates reach only 30 liters a day.
69. To address the challenges in supplying adequate quantities of water, PWA has been working on a project to diversify resources. This includes increasing the abstraction of ground water and importing potable water for domestic use, as well as introducing treated wastewater and harvesting surface water[23] for agricultural use.
70. On January 17, 2017, the PA and the GoI agreed to reactivate the Joint Water Committee (JWC). While this has created an expectation for improved implementation of Palestinian water infrastructure in the West Bank, the Palestinian development of certain water resources is still subject to approval of the JWC.
71. **The parties and donors are encouraged to intensify their efforts to improve water supply infrastructure and advance wastewater treatment and reuse projects. In parallel, the PWA will submit its proposals to the JWC for planned, priority interventions in water resource development, where necessary, in order to advance the PWA National Water Sector Strategic Plan and Action Plan 2017-22. It will inform Israeli Civil Administration (ICA), where necessary, about priority interventions for infrastructure in green fields[24] in Area C. The GoI is encouraged to respond to these and other requests submitted to the JWC.**

Water Supply and Infrastructure

72. The National Water Sector Strategic Plan and Action Plan 2017-22 covers the development of additional water resources, the implementation and centralization of water supply infrastructure,

[23] Surface water harvesting is expected increase from 2 MCM/year currently to 10 MCM/year by 2022.
[24] All open areas that are not considered part of the populated areas in Area C.

and the construction of wastewater treatment plants and infrastructure for water reuse. Each of these interventions will contribute to enhancing domestic water supply as well as increasing the availability of water for agricultural uses.

73. Water resource development: PWA will submit additional proposals to the JWC for increased groundwater abstraction from the Mountain Aquifer. To source water for domestic use, PWA plans seven new wells in the Western Basin, five new wells and two substitute wells in the North-Eastern Basin, and eleven new wells in the Eastern Basin. Together, these will increase abstraction by 26-28 MCM/year. While the PA considers this additional amount to be part of the quota specified in the Interim Agreement, increased quantities need to be negotiated and locations agreed between the parties. The GoI is requested to clarify the present status of previous requests for well-water abstraction and substitutions already submitted to the JWC and which are currently pending their approval.
74. Water supply infrastructure: The capacity of the existing system needs to be increased in order to receive larger quantities of water. This includes the quantities agreed upon as Palestinian allocations under the Red Sea Dead Sea Project and the West Bank water system. These supplies need to be integrated into three networks in the Northern, Southern and Middle Areas. PWA is prioritizing network integration as an effective approach to reducing system losses, increasing system supply capacity, and centralizing the supply of water from all sources, including supply from Palestinian abstraction from natural resources, supply from Israel, and supply from regional cooperation (RSDS). This approach will help ensure the equal, efficient and controlled distribution of water to all Palestinian populated areas.

<u>Wastewater Treatment and Reuse</u>

75. Wastewater generated in the West Bank amounts an estimated 76 MCM/year, of which only 8 MCM/year is treated in wastewater facilities in the West Bank, while 11 MCM/year is treated in Israeli wastewater facilities downstream. The remaining untreated wastewater is disposed in cesspits and the environment, which is both an environmental hazard and a lost opportunity for economic gains available through wastewater reuse in agriculture.[25] As part of the PWA Action Plan 2017-22, PWA will invest in the construction of wastewater treatment and reuse facilities. PWA plans to increase wastewater treatment to 35 MCM/year by 2022, with the target of 50% of treated wastewater being reused in agriculture through eleven priority projects in the Northern, Middle and Southern Area. With regard to all eleven priority projects and in line with the new arrangements of the JWC mechanism, PWA will inform ICA of all relevant infrastructure components for green field implementations in Area C, including the timelines for their implementation. For these important initiatives to be implemented successfully, PWA will need to prioritize the financial and institutional governance components of the strategy. PWA should continue to work to advance relevant wastewater sector regulation in cooperation with the Water Sector Regulatory Council, to support cost recovery and the sustainable operation of these interventions over the long term.

[25] See the OQ's September 2016 AHLC Report for a more detailed overview of wastewater issues in the West Bank.

Report on Other Areas of Engagement

Telecom

76. In the September 2016 AHLC meeting, the GoI made two announcements to unlock the stalled implementation of the 3G and 2G agreements of November 2015. The first of these was the allocation of a different set of 3G shared frequencies for the PA's use in the West Bank; the second, the allocation of single band[26] 2G frequencies to the PA for Wataniya's use in Gaza.
77. The GoI and PA have met on a regular basis since then. These meetings culminated on April 6, 2017 in the approval by the Joint Technical Committee (JTC) of the 3G coverage maps that define the extent of exclusive use by Palestinian operators of the shared West Bank spectrum. The meeting also approved the principles governing Israeli and Palestinian use of this spectrum. These two issues were considered to be among the most significant obstacles to introducing Palestinian operated 3G services in the West Bank, as set out in principle in the agreement of November 2015.
78. The Palestinian mobile operators Jawwal and Wataniya hope to launch commercial 3G operations in 2017. However, there are further challenges to be addressed before this can happen. These include the **need for the GoI to provide accelerated clearance of equipment from Israeli ports, the construction of radio sites in Area C, and arrangements for Palestinian companies to access the core equipment that the intermediate company will be managing.**
79. In parallel to the introduction of 3G, Wataniya is planning to join Jawwal in offering 2G mobile service in Gaza during 2017, introducing competition into the market for nearly two million residents. Following the allocation of a single band frequency, the company has had to order additional equipment to address the changes in the allocated frequencies. This additional equipment consists of:
    a. Second-hand equipment: this comprises mainly Dual Radio Units (DRUs). These are no longer manufactured since the technology is considered outdated. Wataniya has been trying to secure additional second-hand DRUs from international operators that no longer require them. The company has identified that it needs 800 DRUs. To date, it has managed to secure 400, of which half are still pending clearance by Israel to enter Gaza and half are currently in the customs' clearance process. The remaining 400 DRUs are in the process of being imported.
    b. New equipment: this consists of 100 Radio Base Stations (RBS). These have been ordered. Five have already been imported and have entered Gaza. The remaining 95 RBSs are being manufactured and are expected to arrive at the Israeli ports by end of April 2017. These should be processed immediately upon arrival so that they can enter Gaza as soon as possible.
80. Wataniya will only commence with the construction of the network once all the equipment has arrived in Gaza. Building the network is expected to take approximately four months.
81. The introduction of 3G mobile services is a step forward for the Palestinian economy. However, Palestinian operators continue to face Israeli competition, despite the fact that Israeli operators

[26] The equipment already imported enabled a dual band network. Israel's change of the frequency to a single band required Wataniya to make additional investment in new equipment.

are not authorized to operate in areas beyond settlements and military areas in the West Bank and Gaza[27]. According to the World Bank[28], this captures an estimated 30% of West Bank market share. Palestinian operators need to be able to compete on a level playing field, generate returns on their investment, and enhance revenues for the Palestinian economy and thereby the PA.

Rule of Law

82. The PA has made great strides in building institutional capacity and enacting reforms in the last decade (a clear example being the qualitative improvement in performance of the courts and access to justice). However, there serious institutional, legal, and physical impediments to it becoming an effective government that provides services, protects rights, and promotes economic development remain. The OQ's Governance and Rule of Law team continues to provide support in three key areas: the functioning of the justice system, movement and access of security forces, and PA-GoI Trade Cooperation and the Paris Protocol.

Justice System Support

83. Following the release of the National Policy Agenda by the Palestinian Government, the Ministry of Justice (MoJ) led the effort to prepare a strategic sectoral plan for 2017-22. The OQ provided technical assistance and expertise to the MoJ in drafting the Justice Sector Strategic Plan (JSSP).
84. One of the most pertinent issues facing the Palestinian justice sector, as outlined in the JSSP, is the need to reform the governing framework. This call was further amplified following the appointment of the new Chief Justice, who serves both as the President of the High Judicial Council and the Presiding Judge in the High Court. The PA Council of Ministers, civil society institutions and the donor community have been calling for the amendment of the Palestinian Judicial Authority Law (JAL) of 2002 in order to clarify the mandate of judicial institutions and to improve justice delivery and court efficiency. The OQ continues to assist the Government of the Netherlands in its role as the international co-chair of the Justice Sector Working Group. This group is focusing on mechanisms to achieve a modern JAL law that will lead to further development of the justice sector.
85. In addition, the OQ, together with the EU Co-ordinating Office for Palestinian Police Support, continues to provide assistance to the PA to further improve a draft law on establishment of a Serious Crimes Court.
86. The OQ continues to explore possibilities in facilitating greater Israeli-Palestinian legal cooperation including, at an appropriate time, the possibility of reactivating the Israeli-Palestinian Joint Legal Committee. In this regard, the OQ has begun developing a manual for the investigation and

[27] According to Article 36 of Annex III of the Interim Agreement, Israeli operators are required to be licensed from the PA to provide services to Palestinians *"Operators and providers of services, presently and in the future, in the West Bank and the Gaza Strip shall be required to obtain the necessary approvals from the Palestinian side. In addition, all those operating and/or providing services, presently and in the future, in the West Bank and the Gaza Strip who wish to operate and/or provide services in Israel, are required to obtain the necessary approvals from the Israeli Ministry of Communications.*

[28] Note on the Telecom Sector in the Palestinian Territory: "Missed Opportunity for Economic Development," World Bank, February 2016.

handling of criminal cases that entail coordination between the Israeli and Palestinian justice systems.

Movement and Access of Security Forces

87. The OQ continues to monitor the implementation of the April 2015 movement and access rules. These rules significantly eased restrictions on movement for the Palestinian Security Forces and, in particular, the Civilian Police, when operating in the West Bank. This monitoring is conducted in coordination with the US Security Coordinator and EUPOL COPPS. The new rules continue to be applied and followed by both parties. As a result, the percentage of Palestinians in the West Bank who are inaccessible to the police has dropped by 97%. Further, 1.8 million Palestinians can now be freely accessed by police with no coordination with Israeli authorities: an increase of 18%. The OQ has also been working closely with Israeli and Palestinian security officials and the USSC on further potential improvements to access and movement as part of an effort to strengthen the delivery of security and justice services for Palestinian communities throughout the West Bank.

PA-GoI Trade Cooperation/ Paris Protocol

88. As part of a larger effort to strengthen the legal framework for economic development in the Palestinian Territory, the OQ has been working closely with Palestinian and Israeli officials, as well as with the international donor community, to examine the implementation of the Paris Protocol. The OQ has identified a range of specific, feasible measures for its more effective implementation.
89. The OQ is coordinating with the PA's Ministry of National Economy on a proposal to revise the "A1" list of authorized imported goods from Jordan to the Palestinian Territory. The OQ market study currently underway is examining the current A1 list and its impact on the Palestinian economy and Palestinian consumer prices, as well as the likely impact of the potential expansion of this list. The study will develop recommendations for a new list based on the strategic objective of lowering consumer prices without undermining emerging Palestinian production.
90. The OQ is also providing guidance regarding the proposed transfer of certain functions from the Israeli Customs Authorities to PA Customs (the process is referred to as Bonded Warehouses). These responsibilities potentially include customs clearance, inspection for classification, valuation and, at some point, standards, as well as collection of customs duties and related taxes. Such a transfer would require the development of a suitable legal framework within the Palestinian Authority, the establishment of Palestinian customs facilities for bonded storage and customs processing, and the implementation of an enhanced automated system to enable goods to be processed and duties/taxes to be collected. The OQ welcomes the progress made by the parties to date and the potential of an agreement in the near future. In any agreement, it will be important to address risks related to revenue collection and other implementation issues. In addition to ongoing consultations with PA Customs and Israeli Customs, and with Palestinian and Israeli private sector stakeholders, the OQ's engagement in this area is undertaken in close coordination with the World Bank, the IMF, USAID, and other international partners.

Movement and Trade

91. The Palestinian economy stands to benefit greatly from expanded trade development. This requires maximizing the ease of movement through the crossings and trade facilitation. In 2016, Palestinian imports were valued at USD 5.1 billion and exports were valued at USD 929 million. This represents a ratio of imports to exports of 5:1, which is consistent with the 2015 figures. Such a high trade deficit is unsustainable. Currently, 80% of Palestinian exports go to Israel: the development of new markets for Palestinian products is therefore of the utmost importance. This requires improved trade facilitation at the crossings. For there to be a fully functional economy, people and goods must be able to move into and out of the West Bank and Gaza quickly and efficiently.

Identifying new export markets for Palestinian Products

92. In the summer of 2016, the OQ began developing an initiative to expand the reach of Palestinian products to new markets. Based on an analysis of opportunities, given trading patterns, and working closely with the Palestinian and Omani Chambers of Commerce, Oman was identified as the first target market. This initiative culminated in the visit by 24 Palestinian companies to Oman in December 2016, yielding contracts for two-way trade in excess of USD 4.3 million to date.[29] Companies have entered into agreements in the marble and stone, food, and handicrafts sectors. Additional contracts are pending for one company in the plastics sector and four companies in the olive oil sector. Work is currently underway to identify further markets.

Extended benefits: a potential model for trade with other countries

93. Based on the success of the Omani trade delegation, the OQ has already begun preliminary research into markets in Qatar and Cyprus. Cyprus, less than an hour by plane, is a member of the European Union. The market offers Palestinian traders the opportunity to gain experience in doing business with an EU country. Based on preliminary research, Qatar appears, as a Gulf country, to be an excellent market for Palestinian products, particularly for marble and stone. These and other markets would hopefully offer the potential for extending Palestinian trade.

Allenby/ King Hussein Crossing

94. The Allenby/King Hussein bridge is the only reliable international border crossing available to almost five million Palestinians.[30] Currently, Palestinian travelers report excessive delays in transit times. The wait can be up to nine hours in some cases. Traffic through this crossing has grown by 144% since 2005 and the numbers passing through the crossing have increased by 28% between 2015 and 2016. **No crossing can accommodate this kind of growth without making significant modifications to improve its capacity. New infrastructure, while badly needed, is expensive and time consuming to construct. Immediate solutions are also required.**
    a. In addition to the long waits being very unpleasant, the difficulties travelers face in using the crossing through Allenby can be considered as a non-tariff barrier to trade, given the effect that such excessive delays have on business development. Improving the

[29] The companies financed their own participation without subsidy from the OQ or any donor.
[30] The vast majority of Palestinians in the West Bank and Gaza are not able to depart through Israel/Ben Gurion airport.

experience of the crossing will require significant commitment from all the governments involved. The OQ has prepared a comprehensive set of solutions based on internationally accepted best practices in passenger processing. The implementation of these proposals will require coordination between the PA and the governments of Israel and Jordan.

b. The infrastructure and procedures for containerization at Allenby have now been operational for nearly a year on the Jordanian side. To date, demand appears very limited, with only two containers having transited through the crossing during this period. This might change once facilities for two-way trade in containers is in place. We are optimistic that the scanner purchased by the Dutch government for use on the Israeli operated side of the crossing to accommodate containers from Jordan will be operational before the end of the summer. The OQ is focusing on introducing additional trade facilitation initiatives in order to stimulate further trade growth, such as streamlining the movement of commercial cargo through the crossings into and out of Israel, as well as improving the availability of visas to those who wish to enter the West Bank for commercial purposes, such as investment or trade.

Door to Door

95. Door-to-door movement of cargo has the potential to reduce Palestinian traders' transportation costs by approximately 50%, compared to the current costs incurred when moving goods from their factories in the West Bank to locations in Israel or the Israeli international gateways. The current "back-to-back" system requires Palestinian manufacturers to first move goods from their factories to the crossing points on a Palestinian truck; the goods are then transferred at the crossing point to an Israeli truck in order to complete their journey. This arrangement requires the use of two trucks and two drivers, and increases the risk of damage while the goods are in transshipment. The door-to-door movement of goods, utilizing the principles of sound supply chain security, would significantly reduce costs for Palestinian traders. The GoI has expressed an interest in attempting a pilot test for low risk traders in order to assess whether such door-to-door transport is feasible. The OQ is working closely with the ICA to bring this concept to reality.

Economic Mapping

96. The OQ, supported by the Netherlands Enterprise Agency and in close collaboration with the PA, the Palestinian private sector and the international community, is building a smart, interactive, web-based geospatial map of the West Bank and Gaza. The map is intending to visualize critical economic, geographic, social, security, and legal data. Accurate and holistic spatial data has been acquired through collaboration with local partnerships with professional associations, chambers of commerce, and government ministries. The tool will help to fill existing information gaps in key economic sectors, including agriculture, construction, energy, IT, light-manufacturing, telecommunications, tourism and hospitality, and water sectors. Meetings have been held with over 60 relevant stakeholders to date. A functional prototype with data uploading and third-party software integration capabilities has been developed. In the next phase, the OQ will focus on developing the user interface and data visualization systems. Once complete, the web platform will be deployed as a means to empower government institutions, the private sector, and

nongovernmental and international organizations to make informed policy and business decisions, by providing them with key information and analytics. This will enable such bodies to take a more strategic approach to economic development in the Palestinian Territory.