

Government of Lebanon

**Potential PPP Infrastructure
Projects**

- C E D R E -

**Conférence Economique pour le Développement
par les Reformes avec les Entreprises**

APRIL 6, 2018



DESCRIPTION OF CERTAIN POTENTIAL PPP INFRASTRUCTURE PROJECTS

A document prepared by the High Council for Privatization and PPP jointly with:

- The Presidency of the Council of Ministers
- The Ministry of Public Works and Transport
- The Ministry of Energy and Water
- The Ministry of Telecommunications
- The Ministry of Environment
- The Council for Development and Reconstruction
- The Tripoli Special Economic Zone Authority

March 2018

FORWARD

This booklet aims to present certain potential PPP projects with the aim of: 1) Giving local and international companies a preview on some of what the various Government entities are working on; and 2) Soliciting feedback and interest.

This is not an exhaustive list of potential PPP projects. Indeed, many of the projects currently under examination are not listed here, for particular reasons in each case.

It should also be noted that the projects presented in this booklet are not all at the same level of development. Some are more advanced, others are still in very early development. What they have in common is their importance to the economy of the country and the well-being of its citizens.

Working with the various ministries over the course of the next several months, the High Council for Privatization and PPP will endeavor to solidify a formal PPP Program that includes project priorities.

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TRANSPORT SECTOR

EXPANSION OF BEIRUT RAFIK HARIRI INTERNATIONAL AIRPORT

GOVERNMENT ENTITY
Ministry of Public Works and Transport
PROJECT DESCRIPTION
<p>Government of Lebanon (GoL) intends to expand its sole operational commercial airport in Lebanon, the Beirut Rafic Hariri International Airport (BRHIA) on a PPP basis.</p> <p>The key project components are as follows:</p> <ul style="list-style-type: none"> - The development of a new terminal for 6,000,000 passengers and its concourse. - Some improvements to existing airport infrastructure (the aprons, taxiways etc.) - Some improvements to the access roads. - Develop non-aeronautical revenues for the financial sustainability of the project. <p>Dar Al Handasah Consultants (Shair & Partners) completed the Airport Master plan and are currently working on the traffic impact study expected to be completed by end of March 2018.</p>
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Cope with the traffic growth as BRHIA traffic has exceeded its planned capacity. - Improve the quality of service. - Free government budgets for other sectors. - Introduce new revenue streams for GoL. - Contribute to the increase in exports. - Create jobs.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Provide good governance and undertake a transparent tendering process. - Include enough non-aeronautical activities to make the project profitable for the private sector. - Attract funding from multilateral financial institutions.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Finance, build, operate and maintain the new terminal. (Operation and maintenance may apply to the entire airport, depending on final deal structure). - Introduce operational efficiencies.
PROJECT LOCATION
<ul style="list-style-type: none"> - BRHIA is located in Khaldeh at approximately 9km south of the capital city Beirut. - The airport land is owned by the GoL and can accommodate two additional terminals. The current project is for a new terminal to be built on the west side of the existing terminal.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Due diligence completed – December 2018 - Launching the tendering process – December 2019 - Contract Award – June 2020
EXPECTED CAPEX (USD)
The total expected investments needed for the expansion of the airport including the terminal and the necessary infrastructure improvements are estimated at about USD 500MM.
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TRANSPORT SECTOR

KLEIAAT RENE MOUAWAD AIRPORT

GOVERNMENT ENTITY
Ministry of Public Works and Transport
PROJECT DESCRIPTION
<p>Government of Lebanon (GoL) intends to rehabilitate and expand Rene Mouawad Airport on a PPP basis. Project highlights:</p> <ul style="list-style-type: none"> - An airport that will operate charter, cargo and internal flights as well as hosts an aviation training centre. - Benefits from an area of 6MM m², out of which 2.75MM m² is the investment area. - Currently comprises one runway of 3000m length (expandable by 250m) and 45m width, a 3000m taxiway, a 100-car parking lot, and a control tower. - Linked to an international coastal and internal road network.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Create an enabling environment for economic growth for one of the poorest areas in Lebanon. - Direct and indirect job creation at the local and national level. - Reduce road travelling and thus congestion between Tripoli and Beirut through domestic flights for cargo and low cost carriers. - Reduce the load on BRHIA. - Introduce new revenue streams for the State.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Rehabilitate the access roads to the airport. - Relocate the Lebanese army, currently using the site as a military base. - Provide good governance and transparent tendering process.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Finance and rehabilitate the existing airport. - Operate and maintain the airport for the contract period, which will be defined during the due diligence phase.
PROJECT LOCATION
<ul style="list-style-type: none"> - Rene Mouawad airport is located in Akkar, in the north of Lebanon at distance of 105 km from Beirut, 25 km from Tripoli and 7km from the border with Syria. - A strategic position next to the Syrian border and to the international road.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Complete the due diligence – May 2019 - Launch the bidding process – December 2019 - Contract Award – December 2020
EXPECTED CAPEX (USD)
The total expected investments needed, including the terminal and the necessary infrastructure improvements are estimated at about USD 100MM.
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TRANSPORT SECTOR

KHALDEH – NAHR IBRAHIM EXPRESSWAY

GOVERNMENT ENTITY
Ministry of Public Works and Transport
PROJECT DESCRIPTION
<p>The Government of Lebanon (GoL) intends to build an Expressway from Khaldeh to Nahr Ibrahim on a PPP basis. The key project components are as follows:</p> <ul style="list-style-type: none"> - Total length of the expressway is 38 km divided into a tunnel section of 12 km and a dual 3-4 lane expressway of total length approximately 20 km, Interchanges, service roads and bridges - GoL might consider splitting the execution of this expressway into different standalone sections for ease of implementation and for securing the funds for the expropriation
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Reduce the severe congestion at Beirut northern and southern entrances by providing a direct connection between the north and the south instead of using Beirut internal roads. - Reduce the severe congestion on the coastal highway by providing an alternative route to the northern coastal highway. - Generate a large number of jobs. - Reduce pollution. - Enhance economic growth and reduce the country's spending on fuel.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Provide for part or all of the expropriation funds, if needed - Set an adequate yet affordable toll rate - Attract competitive funding from multilateral financial institutions
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Finance and build one or more sections of the expressway. - Operate and maintain those section(s).
PROJECT LOCATION
<ul style="list-style-type: none"> - Starts at the town of Khaldeh South of the city of Beirut and heads northward through Choueifat, Hadath, Hazmieh, then Dikwaneh, Baouchrieh, Jal El dib, Antelias before it connects to the existing Northern Highway at Dbayeh north of Beirut. - A new tunnel from Dbayeh to Nahr Ibrahim.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Due diligence completed – March 2019 - Launching the tendering process – March 2020 - Contract Award – September 2020
EXPECTED CAPEX (USD)
<ul style="list-style-type: none"> - Implementation Cost: USD 1600MM - Expropriation Cost: USD 1260MM
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TRANSPORT SECTOR

JOUNIEH TOURISTIC PORT

GOVERNMENT ENTITY
Ministry of Public Works and Transport
PROJECT DESCRIPTION
<p>Government of Lebanon (GoL) intends to develop a new Touristic Port in Jounieh on a PPP basis. The project entails the development of a port for cruise ships that has a total area of 920,000m² and can accommodate ships of 360m in length. It comprises the construction of:</p> <ul style="list-style-type: none"> - 2130m main breakwater, two quays of 1000m total length and 12m depth. - Two marinas for a total of 400 marina berths. - One passenger terminal. - All facilities required for the provision of high quality service to the users.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Activate the maritime tourism sector and hence develop the national economy. - Attract international operators of the large cruise ships. - Have great impact on the tourism sector more job opportunities. - Reduce the load on Beirut port which is mainly a commercial port.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Develop detailed engineering designs (already completed). - Ensure land availability (already completed). - Complete part of the infrastructure works for about USD 40MM (of which USD 13MM are already ear-marked) over a 3 year period ending in 2020. - Include auxiliary activities, if needed, to make the project profitable to the private sector.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Complete the building of the port infrastructure (quays, dredging, platform, etc.) - Complete the port superstructure: internal road network, office building, terminal, parking etc. - Provide the equipment: mobile cranes, forklift, scanner inspection equipment etc. - Operate and maintain the port for the contract duration.
PROJECT LOCATION
<ul style="list-style-type: none"> - The port is located between the army base and the Portemilio beach resort.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Due diligence completed - March 2019 - Tendering process – March 2020 - Contract Award - March 2021
EXPECTED CAPEX (USD)
The capital costs for the completion of the port are estimated at USD 62MM
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TRANSPORT SECTOR

SAIDA NEW PORT

GOVERNMENT ENTITY
Ministry of Public Works and Transport
PROJECT DESCRIPTION
<p>Government of Lebanon (GoL) intends to develop a New Port in Saida on a PPP basis. The project entails the development of a commercial and touristic port that can accommodate commercial and cruise ships up to 275 m by comprising:</p> <ul style="list-style-type: none"> - Three commercial quays of a 590m total length with a draft of 10 meters. - Around 300 marina berths for touristic boats of 5m draft. <p>GoL completed part of the infrastructure work for a total of USD 19MM in Dec 2016, including a main breakwater of 1000m length with a reinforced concrete superstructure of 630m length, a secondary breakwater of 230m length, and a 150m commercial quay adjacent to the main breakwater.</p>
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Equip Saida with a protected and safe port by replacing the existing Saida port, which can't accommodate big ships and can't be expanded due to archeological ruins, and which will become a fishery port. - Create an enabling environment for Saida's economic growth. - Provide more job opportunities which will directly impact Saida community. - Reduce the load on Beirut port by taking part of its non-core activities such as the ro-ro and passengers traffic.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Develop detailed engineering designs (already completed). - Ensure land availability (already completed). - Include auxiliary activities, if needed, to make the project profitable to the private sector.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Complete the building of the port infrastructure (quays, dredging, platform, etc.) - Complete the port superstructure: internal road network, office building, warehouses, parking. - Provide the equipment: mobile cranes, forklift, scanner inspection equipment etc. - Operate and maintain the port for the contract duration.
PROJECT LOCATION
<ul style="list-style-type: none"> - The Saida new port is located within the Eskandar Bay which is situated roughly 500m to the south of the old existing Saida port. - This new port has access to the main Saida sea-side road.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Due diligence completed - March 2019 - Tendering process – March 2020 - Contract Award – March 2021
EXPECTED CAPEX (USD)
The capital costs for the completion of the port are estimated at USD 65MM
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WATER SECTOR EL BARED DAM

GOVERNMENT ENTITY
Ministry of Energy and Water / North Lebanon Water Establishment
PROJECT DESCRIPTION
<p>The project comprises two components:</p> <ul style="list-style-type: none"> - A central core rock fill dam for water supply of 37 MCM (static) / 90 MCM (dynamic) annual storage capacity, of a height of 88m, length of 635m, and crest level of 180m and a fill volume of 4.80 MCM. Submerging an area of 113 Ha, it has very low leakage risk with no housing, archeological or infrastructure impact. The supply from the dam would rely on both pumping and gravity; and - The associated water treatment plant, transmission lines and reservoirs.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Provide water supply for 590 thousand habitants in Tripoli, El Miniye and Akkar zones in North Lebanon, where the deficit rate of water supply provision is estimated at 47%. - Improve hygienic conditions and social wellbeing. - Conserve and recharge groundwater ensuring sustainability of water resources. - Generate employment of 3 million labor-days.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Secure a financing source and enter into financing agreement with the Lender for CapEx. - Off-taker.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Design, build, maintain and operate the dam and associated water treatment plant and transmission network. - Sell treated water to the North Lebanon Water Establishment.
PROJECT LOCATION
<ul style="list-style-type: none"> - The project's water basin covers an area of 271km² with an average discharge of 150 MCM. The geology of the site is impervious. - The land has been expropriated.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Tender documents available to EPC construction. - EIA is required. - Expected construction period of 5 years.
EXPECTED COST (USD)
CapEx and expropriation: USD 300MM
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WATER SECTOR

AIN DARA – AZOUNIEH DAM

GOVERNMENT ENTITY
Ministry of Energy and Water / Beirut - Mount Lebanon Water Establishment
PROJECT DESCRIPTION
<p>The project comprises two components:</p> <ul style="list-style-type: none"> - A central core rock fill dam for water supply of 4.1 MCM (static) / 5 MCM (dynamic) annual storage capacity, of a height of 53m, length of 300m, and crest level of 1106m and a fill volume of 0.74 MCM. Submerging an area of 28 Ha, it has low leakage risk with no housing or archeological issues but a moderate infrastructure impact. The supply from the dam would rely on gravity; and - The associated water treatment plant, transmission lines and reservoirs.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Provide water supply for 225 thousand habitants in 66 villages in the Aley Caza of Mount Lebanon, where the deficit rate of water supply provision is estimated at 64%. - Improve hygienic conditions and social wellbeing. - Conserve and recharge groundwater ensuring sustainability of water resources. - Generate employment of 1.1 million labor-days.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Secure a financing source and enter into financing agreement with the Lender for CapEx. - Off-taker.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Design, build, maintain and operate the dam and associated water treatment plant and transmission network. - Sell treated water to the Beirut - Mount Lebanon Water Establishment.
PROJECT LOCATION
<ul style="list-style-type: none"> - The project's water basin covers an area of 14.2 km² with an average discharge of 5 MCM. The geology of the site is impervious. - The land will require expropriations costing USD 5MM.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Tender documents available for EPC construction. - Scoping for EIA was submitted to the Ministry of Environment in Nov. 2017. - Expected construction period of 4 years.
EXPECTED COST (USD)
CapEx and expropriation: USD 115MM
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WATER SECTOR

MAASER EL CHOUF DAM AND LAKE

GOVERNMENT ENTITY
Ministry of Energy and Water / Beirut - Mount Lebanon Water Establishment
PROJECT DESCRIPTION
<p>The project comprises two components:</p> <ul style="list-style-type: none"> - An asphalt concrete face rock fill dam for water supply of 2.2 MCM (static) / 2.2 MCM (dynamic) annual storage capacity, of a height of 51.5m, length of 253m, and crest level of 1131.5m and a fill volume of 0.5 MCM. Submerging an area of 13.5 Ha, it has high leakage risk with no housing, archeological or infrastructure impact, and no agricultural land loss. The supply from the dam would rely on gravity; and - The associated water treatment plant, transmission lines and reservoirs.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Provide water supply for 70.43 thousand habitants in 25 villages in the Chouf Caza of Mount Lebanon, where the deficit rate of water supply provision is estimated at 55%. - Improve hygienic conditions and social wellbeing. - Conserve and recharge groundwater ensuring sustainability of water resources. - Generate employment of 0.85 million labor-days.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Secure a financing source and enter into financing agreement with the Lender for CapEx. - Off-taker.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Design, build, maintain and operate the dam and associated water treatment plant and transmission network. - Sell treated water to the Beirut and Mount Lebanon Water Establishment.
PROJECT LOCATION
<ul style="list-style-type: none"> - The project's water basin consist of Wadi Hazirane (3.1 km²) and Wadi Bou Jerios (4.9km²) with an average discharge ranging between 1.1 and 1.3 MCM. The geology of the site is partially impervious. - The land will require expropriations costing USD 2MM.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Tender documents available for EPC construction. - EIA is required. - Expected construction period of 4 years.
EXPECTED COST (USD)
CapEx and expropriation: USD 87MM
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WASTEWATER SECTOR

QORTADA-SFAILEH-DEIR KHOUNA-HLALIYEH

GOVERNMENT ENTITY
Ministry of Energy and Water / Beirut - Mount Lebanon Water Establishment
PROJECT DESCRIPTION
The project comprises two main components: <ul style="list-style-type: none"> - Four wastewater treatment plants: Qortada (34,330 PE), Sfaileh (108,800 PE), Deir Khouna (79,478 PE) and Hlaliyeh (51,144 PE) in horizon year 2050; and - Their relative collection and conveyance systems, connecting 14,500 homes and all totaling 400km of lines and 284km of over-asphalting.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Environment and groundwater protection from wastewater pollution. - Elimination of public health hazards to citizens.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Undertake land expropriation and help secure financing for the project. - Initiate a tariff reform, require metering and enforce connections. - Ensure appropriate quality and quantity of influent.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Design, build, operate and maintain the above systems for 35 years. - Monitoring the quality and characteristics of the raw wastewater - Respect the effluent and air quality standards set by the Ministry of Environment. - Provide staff training.
PROJECT LOCATION
<ul style="list-style-type: none"> - Qortada : Deir-El-Harf, Kneisse, Qsaibe, Qortada, Ras El Metn, Zandouka, Aiyoun, Broumana (part), Masqa. - Sfaileh: Bzibdine, Dlaibe – Aarbaniye, Hasbaya El Metn, Jouret Arsoun, Kfar Selouna, Salima, Aayroune, Ain El Zeitoun, Baabdat (part), Choueir, Dahr El Souane, Douar, Ghabe Bologna – Wata Mrouj, Mar Moussa, Mrouj, Mzakke, Qennabe Salima, Sfaileh, Zaraoune, Qennabe Bsefrine, El Qaaqour, Arsoun, Jouwar El Haouz, Qornayel, Tarchich, Aintoura, Majdel Tarchich, Mtein, Qottara Aintouret. - Deir Khouna: El Chmeice, Deir Khouna, El Qrayeh, Haret Hamzeh, Mazraet el Mzeiraa, Qoubeyyaa, Qtaleh, Ras el Harf, Saoufar, Bmariam, Btebiat, Btekhmay, Chbaniyeh, Khraibeh, Qalaa, Falougha, Hammana. - Hlaliyeh: Aabadiyeh, Ain Mouaffaq, Baalchmay, Bhamdoun, Chouit, Hlaliyeh, Roueisset El Ballout.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Feasibility study completed. - Currently identifying plots of land requiring expropriation (surface of 136,000m2) - Expected construction period of 2 years.
EXPECTED COST (USD)
CapEx and expropriation: USD 194MM
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WASTEWATER SECTOR

ALEY (MOEW MASTER PLAN ZONE 8) WASTEWATER SYSTEM

GOVERNMENT ENTITY
Ministry of Energy and Water / Beirut - Mount Lebanon Water Establishment
PROJECT DESCRIPTION
<p>The project comprises two components:</p> <ul style="list-style-type: none"> - Two activated sludge technology wastewater treatment plants: Maasriti/Chourit, serving Region A (65,000 PE year 2035 and 97,000 PE year 2050) and Charoun, serving Region B (15,000 PE year 2044 and 22,500 year 2050); and - Their relative collection and conveyance systems, totalling 266km of lines.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Protecting the water resources in the region from contamination with sewage. - Protecting the ecosystem of the Damour and Safa River, part of which was included in the UNESCO nature and environment reserves protection program particularly the valley of Damour. - Improving water quality, health and sanitation conditions.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Finalize the location of the sites and initiate the land expropriation process. - Help secure financing for the project. - Initiate a tariff reform, require metering and enforce connections. - Ensure appropriate quality and quantity of influent.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Design, build, operate and maintain the above systems for 35 years. - Monitoring the quality and characteristics of the raw wastewater. - Respect the effluent and air quality standards set by the Ministry of Environment. - Provide staff training.
PROJECT LOCATION
<ul style="list-style-type: none"> - Region A includes the villages of: Sofar (partly ~70%), Mansouriyet Bhamdoun (partly ~50%), Majdelbaana, Chanay, Bedghane, Charoun (partly ~50%), Mecherfe, Mazraat el Nahr, Btater, Ain el Halazoun, Habrammoun, Bserrine, Ramliyye, Mraijat, Kfarnis, Majdelmeouch (partly ~70%), Chourit, Maasriti, Rechmaya and Ain Trez. - Region B including the villages of: Charoun (partly ~50%) and Eghmid (partly ~90%).
PROJECT TIMELINE
<ul style="list-style-type: none"> - Draft EIA recently submitted to Ministry of Environment. - Feasibility study completed - Expected construction period of 2 years
EXPECTED COST (USD)
CapEx and Expropriation: USD 75MM.
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WASTEWATER SECTOR

ALEY (MOEW MASTER PLAN ZONE 7) WASTEWATER SYSTEM

GOVERNMENT ENTITY
Ministry of Energy and Water / Beirut - Mount Lebanon Water Establishment
PROJECT DESCRIPTION
<p>The project comprises two components:</p> <ul style="list-style-type: none"> - Two wastewater treatment plants: Mejdlaya activated sludge technology plant, serving Region A (45,000 PE year 2025 and 66,000 PE year 2050), and Bchetfine upflow bioreactor technology, serving Region B (20,000 PE year 2025 and 30,000 PE year 2050); and - Their relative collection and conveyance systems, totalling 250km of lines.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Protecting the water resources in the region from contamination with sewage. - Protecting the ecosystem of the Damour and Safa River, part of which was included in the UNESCO nature and environment reserves protection program particularly the valley of Damour. - Improving water quality, health and sanitation conditions.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Finalize the location of the sites and initiate the land expropriation process. - Help secure financing for the project. - Initiate a tariff reform, require metering and enforce connections. - Ensure appropriate quality and quantity of influent.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Design, build, operate and maintain the above systems for 35 years. - Monitoring the quality and characteristics of the raw wastewater - Respect the effluent and air quality standards set by the Ministry of Environment. - Provide staff training.
PROJECT LOCATION
<ul style="list-style-type: none"> - Region A includes the villages of: Mansouriyet Bhamdoun, Taazaniyye, Btalloun, Rejmeh, Bhouara, Ain ej Jdide, Bkhechtay, Ain Hala, Ghaboun, Baysour (partly), Souq el Gharb (partly), Keyfoun (partly) and Mejdlaya. - Region B includes the villages of: Kfaramay, Chartoun, Roueissat el Naamane, Bouzraide, Doueir er Remmane, Silfaya, Dfoun, Bennay as well as the villages of Aamiq, Knaisse, Deir Kouche and Bchetfine.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Draft EIA undertaken but exact WWTP sites is yet to be determined. - Feasibility study completed - Expected construction period of 2 years
EXPECTED COST (USD)
CapEx and Expropriation: USD 60MM.
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WASTEWATER SECTOR KFARHAI WASTEWATER SYSTEM

GOVERNMENT ENTITY
Ministry of Energy and Water / Beirut - Mount Lebanon Water Establishment
PROJECT DESCRIPTION
The project comprises two components: <ul style="list-style-type: none"> - A wastewater treatment plant in Kfarhai (13,980 PE year 2040); and - Its collection and conveyance system, totalling 103km of lines.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Protecting the water resources in the region from contamination with sewage. - Protecting the resources of the Mseilha Dam, expected to be completed in 2019. - Improving water quality, health and sanitation conditions.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Finalize the land expropriation process. - Help secure financing for the project. - Initiate a tariff reform, require metering and enforce connections. - Ensure appropriate quality and quantity of influent.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Design, build, operate and maintain the above systems for 35 years. - Monitoring the quality and characteristics of the raw wastewater - Respect the effluent and air quality standards set by the Ministry of Environment. - Provide staff training.
PROJECT LOCATION
<ul style="list-style-type: none"> - District of Batroun, towns of Aartez, Assia, Bijdarfil, Boqsmiya, El Ftahat, Harbouna, Helta, Jibla, Kfar Chlaimane, Kfar Hatna, Kfarhai, Kfifane (50%), Kour, Sourat and Zane.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Draft EIA submitted to Ministry of Environment in 2013. - Feasibility study completed. - Tender documents largely ready. - Expected construction period of 2 years.
EXPECTED COST (USD)
CapEx and Expropriation: USD 25MM.
CONTACT
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WASTEWATER SECTOR SHABTINE WASTEWATER SYSTEM

GOVERNMENT ENTITY
Ministry of Energy and Water / Beirut - Mount Lebanon Water Establishment
PROJECT DESCRIPTION
The project comprises two components: <ul style="list-style-type: none"> - A wastewater treatment plant in Shabtine (6,524 PE year 2040); and - Its collection and conveyance system, totalling 62km of lines.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Protecting the water resources in the region from contamination with sewage. - Protecting the resources of the Mseilha Dam, expected to be completed in 2019. - Improving water quality, health and sanitation conditions.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Finalize the land expropriation process. - Help secure financing for the project. - Initiate a tariff reform, require metering and enforce connections. - Ensure appropriate quality and quantity of influent.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Design, build, operate and maintain the above systems for 35 years. - Monitoring the quality and characteristics of the raw wastewater - Respect the effluent and air quality standards set by the Ministry of Environment. - Provide staff training.
PROJECT LOCATION
<ul style="list-style-type: none"> - District of Batroun, towns of Dirya (75%), Douq, El Aalale, Hadtoun, Mehmarsh, Racha, Shabtine and Toula.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Draft EIA submitted to Ministry of Environment in 2013. - Feasibility study completed. - Tender documents largely ready. - Expected construction period of 2 years.
EXPECTED COST (USD)
CapEx and Expropriation: USD 15MM.
CONTACT
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ENERGY SECTOR

ZAHRANI AND SELAATA IPP PROJECTS

GOVERNMENT ENTITY
Ministry of Energy and Water
PROJECT DESCRIPTION
<p>Implementation of two Independent Power Producer (“IPP”) projects involving two Combined Cycle Gas Turbine (CCGT) power plants located in Zahrani and Salaata areas, each with a capacity ranging between 500 MW and 600 MW.</p> <p>In terms of fuel supply, GoL is planning to develop Floating Storage Regasification Units (FSRUs) for Liquefied Natural Gas (LNG) for each Project. The deployment of the FSRUs is expected to be finalized by GoL ahead of the Projects’ completion. Both Projects are planned to have dual fuel capabilities using natural gas as a primary fuel and Heavy Fuel Oil (HFO) as a secondary fuel with diesel oil being a start-up fuel and a back-up fuel.</p>
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Increase national power generation capacity. - Decrease the cost of electricity by using natural gas and efficient production technologies. - Decrease the emissions factor of electricity production in Lebanon by using environmentally friendly technologies. - Provide alternative power capacity to allow for the gradual replacement of old plants.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Provide land and supply fuel. - Grant IPP License. - Terms and Conditions for the above to be detailed in the Transaction Documents to be developed by the IFC for the benefit of the Government of Lebanon.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - To fully develop the Projects through the provision of Financing, Engineering, Procurement and Construction services, and Operation and Maintenance services for the plants’ lifetime. - Terms and Conditions for the above to be detailed in the Transaction Documents to be developed by the IFC for the benefit of the Government of Lebanon.
PROJECT LOCATION
<ul style="list-style-type: none"> - Zahrani site is adjacent to the existing power plant. - Selaata site is located in the area near the existing waste water treatment plant.
PROJECT TIMELINE
<ul style="list-style-type: none"> - IPP Transaction Closure is expected within 18 months from the start of the Transaction Advisory services to be performed by the IFC. - Projects completion to be with a maximum of 30 months from award.
EXPECTED CAPEX (USD)
USD 600MM per project
CONTACT
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TELECOMMUNICATIONS SECTOR NATIONAL DATA CENTER

GOVERNMENT ENTITY
Ministry of Telecommunications / OGERO
PROJECT DESCRIPTION
One or more scalable data center facilities and infrastructure based on Tier 3 standard, offering cloud infrastructure, platform and software services (IaaS, PaaS and SaaS) to both the public and private sectors, with the potential of expanding services in the region.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Enable and promote the ICT sector and leverage the benefits of fiber rollout. - Improve IT, data security and governance by implementing standardized security and data governance policies. - Improve business continuity and disaster recovery capabilities. - Encourage foreign businesses to invest and establish bases in Lebanon and create employment and economic growth. - Enable data integration between different government entities facilitating the foundation and delivery of e-Government services.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - Provide site locations, fiber connectivity and favorable regulatory conditions. - Assist in the transfer of assets. - Provide anchor tenancy (the two mobile companies, OGERO and governmental entities). - Possibly contribute through co-financing, tax benefits, equity measures, subsidies/grants and different types of guarantees (minimum revenue, exchange rate and debt).
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Design, build, finance, operate and maintain the data center infrastructure for 10-20 years. - Assume the demand risk and recover its investment from user payments. - Assume the economic ownership of the assets during the life of the contract.
PROJECT LOCATION
<ul style="list-style-type: none"> - Several potential locations are proposed; the final location(s) will be decided in consultation with the Private Partner.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Pre-feasibility study completed. - Expected construction period of 1 - 2 years. - Expected operation and maintenance period of 10 – 20 years.
EXPECTED COST (USD)
CapEx: USD 80 - 150MM (depending on design)
CONTACT
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WASTE SECTOR

MUNICIPAL SOLID WASTE TO ENERGY SYSTEM

GOVERNMENT ENTITY
The Council for Development and Reconstruction
PROJECT DESCRIPTION
<p>The project comprises two components:</p> <ul style="list-style-type: none"> - An incineration plant of 2,000 tons/day capacity based on “Waste to Energy” technology for municipalities that are willing to participate in the project; and - Six associated sorting plants.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Put an end to the spread of uncontrolled solid waste dumpsites. - Protect the environment (Air, Water, Soil, biodiversity, etc.) from the pollution caused by haphazard dumping & open burning of solid waste. - Produce electricity through the “Waste to Energy” technology.
RESPONSIBILITIES OF THE GOVERNMENT/MUNICIPALITIES
<ul style="list-style-type: none"> - Identify project site and undertake any required expropriation. - Collect and transport solid waste to the facilities while ensuring quantity and quality of incoming waste. - Off-take any generated electricity exceeding the plant’s power consumption.
RESPONSIBILITIES OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Design, build, finance, operate and maintain the above system for 20 years. - Respect the environmental safeguards set by the Ministry of Environment.
PROJECT LOCATION
<ul style="list-style-type: none"> - To be determined
PROJECT TIMELINE
<ul style="list-style-type: none"> - Site identification and expropriation. - Undertake EIA and seek approval of MoE. - Final design and tender documents ready for EPC tendering. - Expected construction period of 3-5 years.
EXPECTED COST (USD)
CapEx excluding Expropriation: USD 450MM.
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WASTE SECTOR

HAZARDOUS WASTE INTERIM STORAGE

GOVERNMENT ENTITY
The Ministry of Environment
PROJECT DESCRIPTION
A minimum of three interim storage facilities for Hazardous Waste generated in Lebanon (estimated at 50,000 tons/year)
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Protection of the environment from uncontrolled disposal of hazardous waste. - Proper control and environmentally sound management of hazardous waste. - Compliance with international conventions.
RESPONSIBILITIES OF THE GOVERNMENT
<ul style="list-style-type: none"> - Issuance of related national legislation and regulations. - Monitoring on proper handling, sorting, packaging, labelling, transporting of generated hazardous waste in line with relevant national and international legislation and guidelines.
RESPONSIBILITIES OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Design, build, finance, operate and maintain the above system for 20 years. - Collect and transport hazardous waste from source to the storage facilities. - Preliminary Treatment and/or Shipment abroad according to Basel Convention on the Control of the Trans-boundary movement of waste. - Respect the environmental regulations set by the Ministry of Environment.
PROJECT LOCATION
<ul style="list-style-type: none"> - To be determined.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Site identification yet to be done. - Once done, undertake EIA and seek approval of MoE. - Expected construction period of 1 year.
EXPECTED COST (USD)
Estimated CapEx: USD 50MM.
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TRIPOLI SPECIAL ECONOMIC ZONE ZONE DEVELOPMENT

GOVERNMENT ENTITY
Tripoli Special Economic Zone Authority
PROJECT DESCRIPTION
The Tripoli Special Economic Zone (TSEZ) is the first project of its kind in Lebanon to develop a multi-use economic zone complete with all required infrastructure and utilities. The 55-hectare site is adjacent to the Port of Tripoli and offers many logistical advantages. The TSEZ is expected to be a catalyst for the sustainable economic growth of Tripoli and the north of Lebanon. The TSEZ will provide a streamlined and transparent business environment, develop state-of-the-art infrastructure services, and bolster SME capabilities in order to attract local and foreign investors and expand Lebanon's export potential.
OBJECTIVES AND EXPECTED IMPACT
<ul style="list-style-type: none"> - Generate additional economic activity and promote new value added sectors. - Promote net exports of goods and services. - Create new employment opportunities. - Support SME development by creating backward and forward linkages to increase output and raise the standards of local enterprises. - Develop human resource skills and expertise and promote technology transfers.
EXPECTED ROLE OF THE GOVERNMENT
<ul style="list-style-type: none"> - In 2008, the Lebanese Parliament passed the TSEZ Law No. 18, establishing the zone and in 2015 the Government appointed the Board of the TSEZ. In 2009 the Government passed several implementation decrees paving the way for a faster implementation of the law. - In addition to funding the budget of the TSEZ authority, the government has allocated USD 15MM for the first phase of the infrastructure works of the site. It is also actively working to obtain a concessional loan to finance the remainder of the infrastructure cost.
EXPECTED ROLE OF THE PRIVATE PARTNER
<ul style="list-style-type: none"> - Construct the factory buildings and lease both buildings and serviced plots at market rates. - Lease the site from the TSEZ authority at below market rates and accepts the responsibility for the management, maintenance, and operation of the zone. - Assume the economic ownership of the assets during the life of the contract.
PROJECT LOCATION
<ul style="list-style-type: none"> - 550,000 square meters of land adjacent to the Port of Tripoli. The site has connectivity with multi-modal transportation, and can easily access the workforce in Tripoli.
PROJECT TIMELINE
<ul style="list-style-type: none"> - Feasibility study completed. - Master plan including SEA and a detailed design will be ready in June 2018. - Infrastructure works for the first phase in 2019. - Expected construction period of 1 - 2 years and expected O&M period of 30 years.
EXPECTED COST (USD)
CapEx: USD 270MM, including infrastructure and commercial and industrial facilities.
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