

PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC2490

Project Name	EG: Household Natural Gas Connection Project (P146007)
Region	MIDDLE EAST AND NORTH AFRICA
Country	Egypt, Arab Republic of
Sector(s)	Oil and gas (100%)
Theme(s)	City-wide Infrastructure and Service Delivery (40%), Urban services and housing for the poor (30%), Other economic management (30%)
Lending Instrument	Investment Project Financing
Project ID	P146007
Borrower(s)	Government of Egypt, Ministry of International Cooperation
Implementing Agency	EGYPTIAN GAS HOLDING CO (EGAS)
Environmental Category	A-Full Assessment
Date PID Prepared/ Updated	14-Jan-2014
Date PID Approved/ Disclosed	14-Jan-2014
Estimated Date of Appraisal Completion	14-Mar-2014
Estimated Date of Board Approval	27-May-2014
Concept Review Decision	Track II - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

Subsidies for fuel consumption remain a major budget burden and have accounted for 18–20 percent of budget expenditures in recent years, amounting to 5–7 percent of Gross Domestic Product (GDP). Egypt had developed a two phase fuel subsidy reform program and fully implemented in 2012 its first phase including a wide range of targeted fuel price increases reducing subsidies for mainly energy-intensive industries. However a broader rationalization of fuel subsidies to other producers and consumers remains work in progress.

While further progress in fuel pricing reforms may be slowed during the current transition period, the Government of Egypt has been working on containing the deteriorating public services including nationwide power cuts and chronic fuel shortages. A key priority of the government's economic development program is to create jobs and improve service delivery. In this regard, the government has identified among its immediate priorities the need to increase the household use of

natural gas to replace consumption of the highly subsidized, largely imported, Liquefied Petroleum Gas (LPG). In combination the Government is also developing policies and long term strategies for reforming the gas market design, institutions, governance and regulatory structure.

This proposed Egypt Household Natural Gas Connection Project will finance the Government's priority during the transition period for scaling up household access to natural gas and will at the same time proactively support development and implementation of these undergoing reform initiatives in the natural gas sector as well as the broader and long term subsidy reform.

Sectoral and Institutional Context

During the 1990s and 2000s, Egypt had made substantial new gas discoveries, tripling its proven gas reserves from 347 billion cubic meters (bcm) in 1989, to 2.2 trillion cubic meters (tcm) by 2010. About 81 percent of the reserves are in the Mediterranean Sea, 6 percent in the Gulf of Suez, 11 percent in the Western Desert, and 2 percent in the Nile Delta. The rise in gas reserves had led the government to promote the domestic use of gas and to seek export options in the form of Liquefied Natural Gas (LNG) and piped gas. It successfully created a domestic market, built three LNG trains with a capacity of 17 bcm/year, and implemented the Arab Gas Pipeline system with an approximate capacity of 10 bcm/year. However gas supply has been constrained during the last two years and did not cope with the increasing domestic demand in particular from the power sector. Egypt has therefore been reducing its share of gas exports to meet growing demand and is considering LNG imports for the short to medium term, and is working to further incentivize gas exploration and production.

Institutional and Regulatory Structure

The oil, gas, petrochemicals, and mining industries in Egypt operate under the overall direction of the Ministry of Petroleum and Minerals (MoP). The Egyptian General Petroleum Company (EGPC) was created by a law in 1957 to handle the exploration, production, processing, and transport and distribution activities of petroleum products. In 2001 the Egyptian Natural Gas Holding Company (EGAS) was created to organize and manage natural gas development in Egypt. EGPC has 100 percent ownership of EGAS and has been delegating natural gas activities to EGAS. In 2002, the Ganoub El Wadi Petroleum Holding Company (GANOPE) was established to manage the development of the oil and gas resources in the South Valley including wholesale purchasing, transmission, distribution, and supply.

The national gas transmission network is managed, operated, and maintained by the Egyptian Gas Company (GASCO). The company is majority state-owned with EGAS holding 70% equity, and Petrojet and Egypt Gas holding 15% each. EGAS maintains ownership of the transmission assets. The gas distribution assets are also owned by EGAS. However, the operation and maintenance (O&M) of the distribution system was opened up to private sector participation in 1997 and was divided into a number of concession areas. Concessions were awarded to thirteen Local Distribution Companies (LDCs) along geographical boundaries and nine of the LDCs are privately owned. The LDCs are responsible for providing operations and maintenance services of the distribution network as well as extending access to new household and commercial customers, while EGAS is responsible for financing expansion of the distribution networks.

The power sector is the largest consumer of gas (57 percent) followed by the industrial sector -- fertilizer, cement, iron and steel, and others -- (28 percent), petroleum and petrochemicals (11 percent), residential consumers and motor vehicles using compressed natural gas (4 percent).

Because of the rapid growth of the power sector and the policy of switching from oil to gas for power generation, gas consumption by the power sector has increased from 5 bcm in 1991 to 24 bcm in 2011. Gas demand by power generation is expected to reach about 50 bcm by 2017 when the present five-year generation expansion plan (FY12-17) is implemented.

Like many other gas producing countries, Egypt's initial success in the promotion of natural gas use (to substitute for expensive oil) was focused on the power and industrial sectors. These sectors are often considered as major vehicles for fuel substitution while fuel switching in the residential sector takes place at a much more gradual pace. In recent years, the Government of Egypt has emphasized the supply of gas in various sectors and in particular in the residential sector, and has completed distribution connections to about 5.4 million household consumers (about 33 percent of total households that could be targeted for gas supply) through a dedicated program.

The Government recognizes the importance of the residential household natural gas connection program to replace consumption of the highly subsidized Liquefied Petroleum Gas (LPG) and to improve the delivery of energy services to households. This program has an ambitious ultimate goal of providing about 17 million households with access to natural gas distribution networks. The program is being implemented at an accelerated rate: annual gas connections have increased from 350 thousands in 2007/2008 to 588 thousand connections in 2012/2013. EGAS aims at increasing the number of household connections to 800,000 annually during 2013/2014 and beyond. The Government of Egypt has requested the World Bank to support financing its household gas connection program to expand household access to natural gas supply in 11 governorates in Egypt. The Government of Egypt has requested the World Bank to support financing its household gas connection program to expand household access to natural gas supply in 11 governorates in Egypt.

Relationship to CAS

The proposed project is consistent with the ISN for Egypt and supports its three pillars: (i) improving economic management through control of the fiscal deficit and initiating reforms to enhance transparency in government operations; (ii) job creation, through direct emergency lending and initiating steps to improve the environment for private sector led growth and job creation; and (iii) fostering inclusion, which involves ensuring broader access by disadvantaged segments of the population. The proposed project supports the objectives of these three pillars through reducing the government's large fiscal deficit attributed to LPG subsidy, fostering inclusion by improving energy services to its citizens including scaling up household access to natural gas all over Egypt, improving the governance of the gas sector, and increasing opportunities for economic growth and employment through infrastructure investments. The proposed project is also aligned with government's current Economic Development Plan aiming to connect 800,000 households per year to the natural gas networks.

The proposed project is also in line with the new directions for the Bank energy investments outlined in the recently approved paper "Toward Sustainable Energy Future for All: Directions for the World Bank Group's Energy Sector". Through scaling up access of households in Egypt to natural gas supply, the proposed project supports achieving universal access to affordable and reliable energy supply and accelerating gains through a more cost effective, environmentally sound, and socially sustainable manner, including providing access to modern cooking solutions by 2030.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

The proposed project development objective is to support the Government of Egypt goal of reducing LPG subsidies through scaling up natural gas connections to households.

Key Results (From PCN)

The project development objective will be measured using the following indicators:

- Annual number of household natural gas connections, of which (percent) female headed households;
- Reduction in household LPG consumption in the target areas (ton/year);
- Annual savings from reduced subsidies for LPG (LE and US\$/year)
- Government's approval of a comprehensive gas sector reform program
- Average interruption frequency per year of gas supply to household consumers (numbers)

III. Preliminary Description

Concept Description

The proposed project will support the Government's on-going program to expand the household access to piped natural gas which aims to connect 800,000 households annually. EGAS proposed that the World Bank financing focuses on investment targeted to connecting about 1.1 million households in 11 governorates over the three year implementation period of the proposed project. The proposed investments are part of the household gas connection investments in services areas in these governorates under the concessions of two LDCs; Town Gas in the Giza, Ismaillia, Alexandria and Marsa Matrouh governorates and Egypt Gas in Qalubia, Menufia, Daqahlia, Qena, Sohag, Gharbia, and Aswan governorates.

The primary key economic benefit of switching households to natural gas is reducing budgetary burden of subsidies provided to the imported and highly subsidized LPG.. In addition to the economic savings from switching to natural gas, there are significant socio-economic benefits including job opportunities, improved delivery of energy services to households, and better safety, health and convenience from the elimination of LPG cylinders. These benefits help in particular the handicapped, elderly and women of vulnerable income groups who experience difficulty in accessing the LPG cylinders

The project will have the following investment components:

- **Component 1: Gas Distribution Network and Connection.** This includes expansion of the intermediate and low pressure gas distribution networks, installation of control units and conversions of customer appliances to allow connection of and supply of gas to the proposed new 1.1 million households.
- **Component 2: Pressure Reduction Stations (PRSs).** The construction of PRSs to connect the distribution networks in the project areas to the high pressure gas transmission networks. Currently 25 new PRSs area being considered for financing by the proposed project.
- **Component 3: Gas Transmission Connection.** This component includes extending the gas high pressure transmission network to supply gas to the new PRSs in the project areas. Twenty high pressure gas pipeline connections are currently being considered ranging from 50m – 38km of about 185 km total length.

- Component 4: Technical Assistance and Capacity Building. This component aims at improving the operational and financial performance of the gas utilities, implementation of gas sector reform programs and establishment of customer service centers to ensure quality service delivery to consumers by the gas distribution companies.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04		x	
Forests OP/BP 4.36		x	
Pest Management OP 4.09		x	
Physical Cultural Resources OP/BP 4.11	x		
Indigenous Peoples OP/BP 4.10		x	
Involuntary Resettlement OP/BP 4.12	x		
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50			x
Projects in Disputed Areas OP/BP 7.60		x	

V. Financing (in USD Million)

Total Project Cost:	860.00	Total Bank Financing:	500.00
Financing Gap:	0.00		
Financing Source			Amount
Borrower			360.00
International Bank for Reconstruction and Development			500.00
Total			860.00

VI. Contact point

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