

Minimizing Vehicular and Power Plants Pollution in Egypt

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1. Themes and categories

- A. Demonstrating new approaches to the financing of cleaner energy
- B. Reducing the environmental impact of energy service provision

2. Description of the best practice

(a) Responsible department of the government

- Ministry of State for Environmental Affairs

(b) Partners involved :

- Ministry of Petroleum
- Ministry of Electricity and Energy
- Public Transportation Authority
- Greater Cairo Bus Company
- USAID

(c) Characteristics that make the initiative a best practice

- With the increase in the Egyptian stock of natural gas, a special policy has been adopted for the replacement of liquid fuel (H.F.O&L.F.O) by natural gas due to its distinction apparent in the economical and environmental aspects.
- Fuel switching is currently being applied to the electricity generation plants, industry and residential sectors.
- The basic aim is the transferring the public buses as well as small passenger cars and taxis to operate with compressed natural gas (CNG) as an eco-friendly fuel in vehicle operation and industrial processes owing to its environmental impact on pollution reduction as well as its economic benefit, as emissions produced from burning natural gas are lower than those from liquid fuel, moreover, the cost of one cubic meter of natural gas is equal to half the cost of one liter of petrol.

3. Mainstreaming/ sustainability of the best practice

(a) Positive results brought about by the initiative

- Expansion plan of utilization of Natural Gas in the industrial and commercial sectors. The plan has been finalized in 2003 and includes implementation of several programs, among which is a program for encouraging utilization of natural gas as a substitute for liquid fuels in both industrial and commercial sectors.
- Preparing a special form by which to specify the perfect location for installation of new natural gas fueling stations using the Geographic Information Systems(GIS).
- Establishment of an emissions testing, tune-up and certification center for testing the performance of heavy vehicles.

(b) Linkage with national development policies

- Current Egyptian energy policy calls for shifting the demand from liquid fuel oil to natural gas. This is due to the abundance in natural gas supply estimated at 65 trillion cubic feet (CF), and with the identified 3D seismic potential, can reach 120 trillion CF.
- With the increase in the Egyptian stock of natural gas, a special policy has been adopted for the replacement of liquid fuel (H.F.O&L.F.O) by natural gas due to its distinction apparent in the economical and environmental aspects.

(c) Financial viability

- Subsidizing the interest rate on loans to be granted to the above mentioned projects.
- A study is under preparation for the establishment of a factory for the fabrication and assembly of equipment used into natural gas vehicles fueling and conversion stations with the participation of companies from Egypt, UK and USA, to be stationed in Egypt.

(d) Lessons learned

- Usage of natural gas in power plants connected to the gas grid reached (98.1%) in 2004/2005 representing (92%) of total fuel consumption in the power system.
- Converting 50 buses to operate on CNG
- 55 thousand private vehicles and taxis have been transformed to operate
- 87 fueling stations have been established for this purpose
- Transforming another 2000 vehicles to CNG operation in several governmental authorities.

4. Replication

This project has been developing a plan for expanding the use of natural gas in transportation and power plants sectors which are the main cause of air quality degradation in major cities and urbanized areas. This was the intention behind conducting a baseline study, holding meetings with stakeholders, and testing implementation in different sectors.