

Brief

Name of Project: “Grid connected combined cycle power plant project in Qadirpur utilizing permeate gas previous flared.” Version 01.

Objectives:

- The main objective of the project activity is to operate Combined Cycle Power Plant for utilizing the permeate gas at Qadirpur to generate 228.3 MWel (gross) of electricity utilizing the permeate gas which will help to improve the power availability in the surrounding areas without taxing the countries fossil fuel sources as the plant will be fueled with permeate gas that would otherwise be flared at the gas field and contributes towards sustainable development.
- To help in achieving the objectives of combating climate change under UNFCCC by reducing significant amount of greenhouse gas (methane) emissions and contributes to the regional and national sustainable development.

Date of Submission: April, 21st 2009

Submitted by: ENGRO Chemical Pakistan Limited.

Project Sponsors: ENGRO Chemical Pakistan Limited.

Project Development Consultants: Axis Environment Services

Detail of Total Project Cost:

Description	Amount in US \$ Million
EPC	166.83
Colony	3.80
Project Development	6.19
Financing Fees	4.17
Insurance	2.50
IDC	14.98
Construction Management	6.19
Grant Total US \$ (million)	204.66
Total amount in PKR (million)	16372

Estimated Emission Reduction:

<u>Source</u>	<u>Tons of CO₂eq/ yr</u>
Qadirpur Gas Field	162,943
Total annual reduction:	162,943

Operational Lifetime: 25 years.

Starting/Commissioning Date:

December, 2009

Crediting/Validity Period:

- Kyoto first commitment period: 2008-12
- Estimated validity period (Including Post Kyoto period): 2008-32

Economic Viability of the Project:

Internal Rate of Return (IRR):

Without CDM benefits: 8%

With CDM benefits: 18%

Benefits from the Project:

Activity	Revenue (US\$) million/annum
Sale of 223.8 MW Electric Power to WAPDA (@Rs. 4.82/KWh):	80
Sale of Carbon Credits (@ US\$ 20/tonnes of CO _{2eq}):	3.2
Total estimated annual revenue:	80.2

Other Qualitative Benefits:

- The combined cycle power plant will help the government in coping with the increasing demand for electricity in the country without increasing greenhouse emission. The erection of the combined cycle power plant will further enhance the power supply to the local area, making power supply more reliable and therefore improve the quality of services.
- The proposed project activity offers a chance to improve Pakistan's energy balance and decrease the gap between energy demands and energy generation in the country.
- Consolidates Pakistan's captive electricity production capacity, which contributes to the diversification of electricity production by providing new additional electricity generation capacity to the national grid.
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- The project will create additional jobs during its construction period of the new combined cycle power plant, which will strengthen the regional development.
- Reduce emissions of local air pollutants (NO_x, SO_x, etc.) in the area by utilizing the gases being use for flaring thus extinguishing the flaring.
- Stimulates economic activity and investment in the project area.