

BRIEF

Name of Project: “Gul Ahmed Combined Cycle Gas Turbine Project.”
Version 01.

Objectives:

- The main objective of the project activity is to operate a 10MW Combined Cycle Gas Turbine (CCGT) and its exhaust gases will be fed in a waste heat recovery boiler to generate steam for the process and for a steam turbine that will generate additional electricity. Steam for the process will also be extracted from the steam turbine and contributes towards sustainable development.
- To help in achieving the objectives of combating climate change under UNFCCC by reducing significant amount of greenhouse gas (carbon dioxide) emissions and contributes to the regional and national sustainable development.

Date of Submission: June, 24th 2008

Submitted by: EcoSecurities Group Plc

Project Sponsors: Gul Ahmad Textile Mills Limited.

Project Development Consultants: EcoSecurities Group Plc

Detail of Total Project Cost:

Description	Amount in PKR
Civil Work	16,000,000
Cost of Generator	230,000,000
Cost of Compressor	37,000,000
Cost of Boiler	75,000,000
Cost of Chiller	18,000,000
Water treatment Plant	10,000,000
Auxiliaries	15,000,000
Erection and Installation	17,000,000
Electrical	29,000,000
Insurance	8,000,000
Duties and taxes	23,000,000
Contingencies	22,000,000
Grant Total	500,000,000
Total amount in US \$ (million)	7.35

Estimated Emission Reduction:

<u>Source</u>	<u>Tons of CO₂eq/ yr</u>
Gul Ahmad Textile Mills Limited	35,089
Total annual reduction:	35,089

Operational Lifetime: 25 years.

Starting/Commissioning Date: 01/03/2008

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: 14%

With CDM benefits: 17.1%

Benefits from the Project:

Activity	Revenue (US\$) million/annum
Sale of Carbon Credits (@ US\$ 15/tonnes of CO _{2eq}):	0.525
Total estimated annual revenue:	0.525

Other Qualitative Benefits:

- Consolidates Pakistan's captive electricity production capacity, which contributes to the diversification of electricity production.
- The project will generate jobs during its construction phase.
- Reduce emissions of local air pollutants (NO_x, SO_x, etc.) and greenhouse gases (CO₂) from fossil fuel combustion by improving the efficiency of the energy generation system, thus reducing fuel use. Thus switching away from heavy fuel oil towards natural gas, which is a cleaner fuel.
- Reduce the use of water (used in the boilers) and of chemicals used to treat that water.
- Encouraging development of modern and efficient captive energy generation equipment throughout the Host Country.
- Increases skilled labour opportunities at the project plant.
- Stimulates economic activity and investment in the project area.