

BRIEF

Name of Project: "Fuel Switch to a less carbon intensive fuel at SFS Pvt. Ltd (SFSPL), Pakistan." Version 2

Objectives:

- The main objective of the project activity is to switch from high fuel (diesel) to low carbon intensive, energy efficiency. The fuel switch measures are primarily aimed at reducing greenhouse gas (GHG) emissions and contributing 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.

Date of Submission: 14th April, 2008 Version 1;
29th Jan., 2011 Version 2

Submitted by: S. Fazalilahi and Sons (Pvt) Limited

Project Sponsors: S. Fazalilahi and Sons (Pvt) Limited

Project Development Consultants: Polar Design Studio, USA

Detail of Total Project Cost:

Description	Unit I, Karachi
Building construction cost	\$57,800
Electrical items & installation cost	\$24,700
Two Gas engine cost	\$550,000
Total	\$632,500

Description	Unit II, Lahore
Cost of retrofitting boilers + Others	\$37,700
Electrical items & installation cost	\$22,500
One Gas engine cost	\$273,000
Total	\$333,200

Description	Unit II, Lahore
Biomass boiler cost including installation	\$88,300
Waste heat recovery boiler installed cost	\$49,400
Total	\$137,700

Estimated Emission Reduction: Source Tons of CO₂eq/ yr

S. Fazalilahi and Sons (Pvt) Limited 10,634

Total annual reduction: 10,634

Operational Lifetime: 20 years

Starting/Commissioning date: 2006

Crediting/Validity Period:

- Kyoto first commitment period: 2008-12
- Estimated validity period
(Including Post Kyoto period): 2006-25

Economic Viability of the Project:

The project's additionality is not based on the financial analysis and technology barrier analysis.

Benefits from the Project:

Activity	Revenue (US\$) Million
Sale of Carbon Credits (@ US\$ 10/tonnes of CO ₂ eq):	0.10
Total estimated annual revenue:	0.10

Other Qualitative Benefits:

Environmental well being

- The project results in reduced greenhouse gas emissions intensity per unit electricity and steam generated at S. Fazalilahi & Sons (PVT) Ltd.
- The project reduces local air pollutants and air quality impacts due to noxious fumes from Diesel oil after switching to Natural gas for power and steam generation.
- The project reduces GHG emissions in the land transportation of Diesel Oil from the fuel storage facility.
- The project generates electricity for a cotton wastes recycling facility to manufacture export quality surgical absorbent cotton and other cleaning implements such as mops using recycled PET bottles facilitating the efficient recycling and disposal of waste products.

Economic well being

- The fuel switch measure has allowed the project developer to adopt cleaner fuel for its manufacturing facilities and benefit from carbon revenue through implementation of this initiative.

Technological well being

- This is a clean technology demonstration replacing diesel oil with natural gas to generate electricity and steam for S. Fazalilahi & Sons textile waste recycling and manufacturing facilities. GE Jenbacher has more than 50 years of experience in gen-set manufacturing. GE Jenbacher offers technical support for all its products. The gas gen-sets integrate patented technologies for energy-saving and environmental protection into the design and production processes and have demonstrated excellent performance becoming market leaders in Gas gen-sets
- Cochran has been a leader in boiler technology for steam and hot water plants for over one hundred years. The company can support its products for their entire lifetime. Cochran specializes in providing individually tailored designs and engineered boiler plants to meet specific customer requirements in area of plant refurbishment and efficiency improvement.