



ABUL KHAIR STEEL PRODUCTS LIMITED

Keeping Main Pumps on Rolling Mills Turned Off when Mills are Offline

SUMMARY OF THE OPTION

Abul Khair Steel Products Ltd (AKSP) is a private limited company of Bangladesh producing various steel products, such as Cold Rolled Coil, Galvanized Steel Sheet, Corrugated Iron Sheet, etc.

It was observed that the plant have 5 cooling water supply pumps with an estimated power of 75 KWh each. All the pumps remain operational all the time even during the shut-off condition of the cold rolling mill. The GERIAP team suggested the company team to use energy sensors on the rolling mills for automatic turning off of the main pumps for cooling water supply to rolling mills when mills are off-line. An estimated amount of Tk 0.2 million (eqv US\$ 3,333) is required to install an energy sensor. However, the company team, instead of installing the energy sensor started operating the main pumps manually. After implementation of this option, they have saved about 48 MWh electricity per year, saving Tk 192,000 (US\$ 3200) and GHG emission reduction was 26 ton CO₂ per year.

KEY WORDS

Iron & Steel, Bangladesh, Pumps & pumping systems, Rolling mill

OBSERVATIONS

The following observation was the basis for selecting this option:

- Five Cold water recycling pumps remain operational all the time even during the shut-off condition of the cold rolling mill

OPTIONS

The Company team implemented this option immediately without installing the costly energy sensor and started manual operation of the main pumps and turning off these pumps when cold rolling mill is in shut off condition.

RESULTS

This option reduced the electricity consumption of the plant. The financial, environmental and other benefits of this option are given below:

Financial benefits

- Investment: Nil
- Annual operating cost: Nil
- Annual cost savings: US\$ 3,200 (40kw/hr/mill X 4 mill X 300 hr/annum = 48 MWh X BDT 4.00/kw = Tk 192,000)
- Payback Period: N/A

Environmental benefits

- Annual energy savings: 48 MWh



- Annual GHG emission reduction: 26 TCO₂

(Conversion factor for electricity is 0.54 TCO₂/MWh taken from UNEP GHG calculator: www.uneptie.org/energy/tools)

Other benefits

- Less environmental pollution
- Less electricity consumption

FOR MORE INFORMATION

GERIAP National Focal Point of Bangladesh

Mr. M Saidul Haq, President
Institute for Management Consultants Bangladesh (IMCB)
396 New Eskaton Road
Dhaka 1000, Bangladesh
Tel: +880-2-9353350-4, 9351102
Fax: +880-2-9351103
E-mail: srgb@consultant.com
Web: www.srgb.org

GERIAP Company in Bangladesh

Mr. K K Soni
General Manager
Abul Khair Steel Products Ltd
Kadamrasul, Sitakund
Chittagong, Bangladesh
Tel: +880-31-752769-71
E-mail: aksp@spectnet.com, aksp@globalctg.net

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