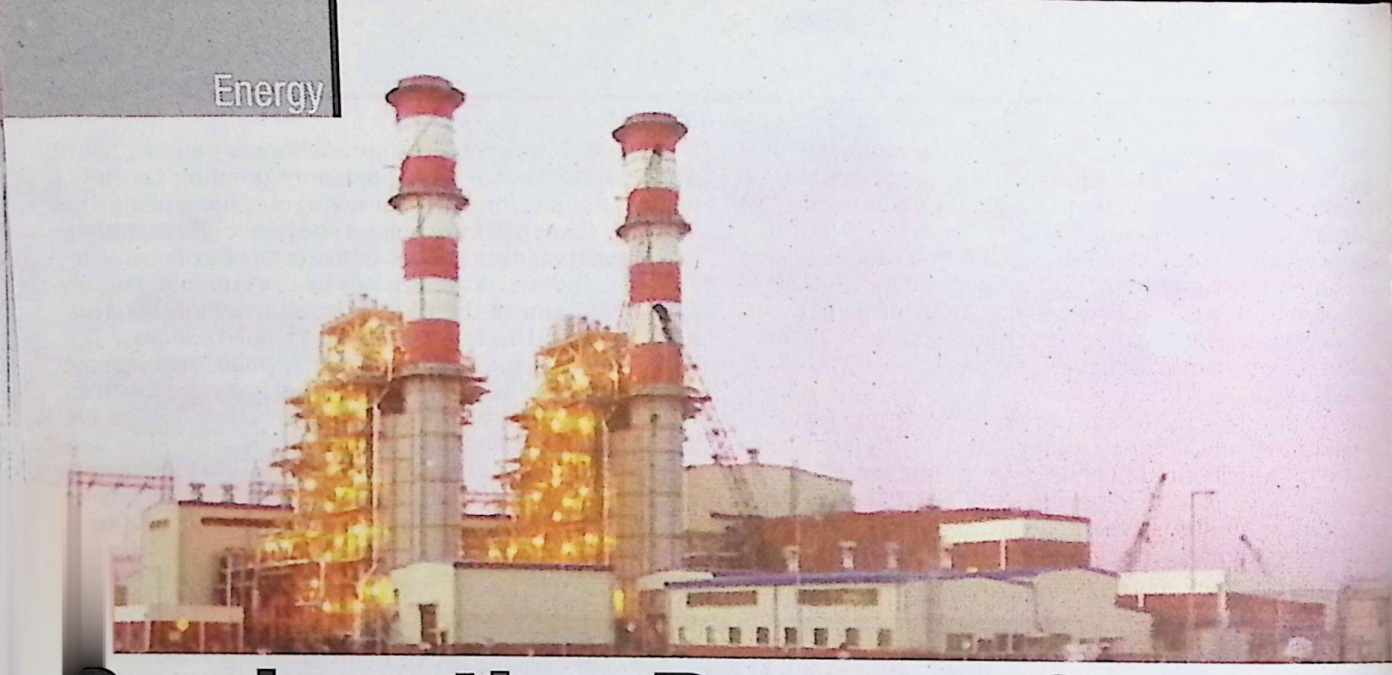


Saving the Power Sector

DR MAK AZAD

Our power sector is passing through a crunch time as the demand for electricity outstrips supply, making the problem multidimensional. In 2008, the average generation of electricity was around 3600-3700 megawatt whereas the demand was around 5000 megawatt. Load shedding is a regular phenomenon and our everyday life is severely affected by the shortage of electricity. Moreover, the shortage of gas supply has created another major problem. It is to be noted here that about 89 percent of the country's electricity is generated from gas. It is used as the primary fuel for power generation. Last year, due to an acute shortage of gas supply, 400-900 MW capacities of power generation were needed to be switched off from time to time. Shortage of gas supply was around 300 million cubic feet per day (mmcfd). According to the Power System Master Plan's updated June 2006 reference forecast, peak demand

Way Forward

The following points may be considered as a way forward for immediate action:

- People's participation in load management and energy conservation
- Fast track decision for coal extraction
- Fast track decision for gas exploration
- Decision for power import from neighbouring countries as a first step towards implementation of SAARC Power Grid.

Possible ways of Power Import

Import from eastern region of India in the year 2006, a pre-feasibility study on electricity interconnection between Bangladesh and India was conducted with the assistance of USAID. The brief of the study is as below:

During summer and rainy seasons, the eastern region of India has surplus power, which can be exported to Bangladesh. During that period, demand of electricity in Bangladesh is also high due to irrigation load and hot summer conditions.

Phase wise possibilities of power import

- Short Term (2009-2010): 250 MW
- Mid Term (2011-2012): 500 MW
- Long Term (2015-2016): 1000 MW Implementation time for short term proposal is around two year from the day of start.

Salient Features

As per recommendation of the study the most suitable point of interconnection is Bahrampur of India and Ishurdi of Bangladesh.

Goal:

- To ensure uninterrupted and reliable power supply free from frequency, sudden interruption and reconnection, the study proposed 250 MW high voltage back-to-back DC Interconnection, which would be upgraded to 500 MW during mid term period.
- Transmission line Would be 500 MW capacity from the very beginning of Interconnection.
- In the long term, the whole system would be upgraded to 1000 MW power transfer capacity.

Methodology of Interconnection

Asynchronous Interconnection: Stage-I

- Establishment of 400/220 kV substation at Baharampur (India) by looping in and looping in and looping out of Farakka-Jeerat 400 kv single circuit line and addition of 2x315 MVA, 400/220á kV Interconnecting transformer.
- Establishment of 400/130 kV substation at Ishurdi (Bangladesh) by addition of 3x315MVA, 400/230 kV Interconnecting transformer.
- 1 x250MW HVDC, back to back station at Baharampur