

Energy Exchange – An Experience

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THE ISSUE

- Praxair's continuous process plant in Tamilnadu has a load requirement of around **6 MW**
- TNEB introduced a power cut which presently is:
 - **90 %** during evening peak hours (1800 hrs to 2200 hrs)
 - **20%** during other hours
- Can draw **4MW** during non-peak hours; **0.5MW** in peak hours.
- Rest of the power had to be taken from our HFO based generators.
- HFO cost drastically increased over the years – from around Rs. 8000/KL in the year 2000 to the present Rs.40000/KL. Accordingly Cost/KWh from HFO increased from **Rs.2** to **Rs.10**
- Loss for power consumed during peak hrs. -- **Rs.34 lakhs/month**

THE SOLUTION

- **Entered into a bilateral agreement with a power producer to purchase 2MW power RTC.**
- **The additional power required (3.5MW) during the peak hours was very costly from the same supplier and many other suppliers (almost double)**
- **Turned to the Energy Exchange for sourcing this additional power of 3.5 MW for the evening peak hours alone.**
- **Have been using this for the past 6 months without any major issues**

BENEFITS ACHIEVED

- **SAVING** of around **Rs.12 lakhs/month** achieved by drawing power during peak hours from IEX.
- **More flexibility in Operation of the plant. No long term commitment, hence if shutdown of plants/sections of plants planned, need not bid and hence no loss.**
- **Optimization of man-power. More manpower required for DG operations, changeover etc. not required now.**
- **Since EB power is available, no restriction of starting of high capacity motors which may not be possible on DG sets.**

CHALLENGES IN EXCHANGE TRADING

- **Since Transmission Corridor is congested, Cost of power to Southern States sometimes high when compared to the market clearing price.**
- **Payment in advance. Should always remember to maintain the required amount in the trading account.**
- **If there is an issue in the distribution network wherein the power cannot be drawn, it may result in a loss (Not happened till now)**
- **Block Bids - 'Paradoxically Rejected Bids' and 'Bids Selection based on priority' sometimes makes the computation of bidding price complicated**
- **Understand that in Karnataka, trading through the exchange is not allowed if already drawing power through Open access (bilateral) or through group captive.**