

NATIONAL STOCK EXCHANGE, MUMBAI

5000 TRH STL with existing system



The Situation

OPERATION OF AIRCONDITIONING PLANT BEFORE MODIFICATION

- Installation of 350 TR x 4 Nos. and 200TR x 1 No. Screw Chillers.
- Average Chiller Operation during Day between 9 AM to 8 PM : 350 TR x 3 Nos. Chillers
- Average Chiller Operation during Night between 8 PM to 9 AM : 200 TR x 1 No. Chiller

The Solution

OPERATION OF AIRCONDITIONING PLANT POST MODIFICATION

- Average Chiller Operation during Day 9 AM to 8 PM : 350 TR x 1 No. Chiller, 4800 TR-HR STL
- Average Operation during Night
- For load meeting: 200 TR x 1 No. Chiller. For charging of TES: 350 TR x 2 Nos. Chillers

Savings in Maximum Demand

Month	Demand Savings (KVA)	Month	Demand Savings (KVA)
January	616	July	616
February	616	August	924
March	924	September	924
April	924	October	924
May	616	November	616
June	616	December	616
		TOTAL	8932

The Results

Electrical Energy Cost

Monthly Consumption for Charging of Storage System during Night time	: 120,000 kWh
I. Units shifted from 12:00 -18:00 Period to 22:00 – 06:00 Period	: 81, 600 kWh
Savings in Energy Costs (81,600 x Rs. 0.86/Unit)	: Rs. 70,176
II. Units shifted from 09:00 -12:00 Period to 22:00 – 06:00 Period	: 38, 400 kWh
Savings in Energy Costs (38,400 x Rs. 1.44/unit)	: Rs. 55,296
Monthly TOD Savings	: Rs. 125,472
Yearly TOD Savings	: Rs. 1,505,664