

TRIPPING UP ON MEGA DREAMS

Mundra has a lot to boast about. But those could prove empty if the tariff issue isn't resolved By P.B. Jayakumar

INSIDE THE BRIDGE of the *MV Hero*, a 300-metre cargo ship berthed at the coal handling port in Mundra, Gujarat, the captain is relaxed even though he has just completed a long voyage from Indonesia. Lighting up a cigarette and sipping his coffee, he talks about braving rough weather in the Indian Ocean, waiting for two days to berth at Singapore port, and again on the outskirts of Mundra port.

"But this is a fantastic facility," says the Ukrainian, who has called on many a port across the world. As he talks, three giant mechanised cranes are at work. Each shovel attached to a crane scoops up about a tonne of coal from the ship's hull and deposits it on a conveyor belt that's 13 km long and delivers the cargo directly to the furnaces of Tata Power's subsidiary, Coastal Gujarat Power (CGPL), India's first ultra mega power plant (UMPP).

Coal from another ship berthed nearby is being unloaded in a similar fashion onto a conveyor belt that runs up to Adani Power's plant, located next to CGPL. A third conveyor is feeding coal to trucks and rail wagons; it takes 1-2 minutes to load a truck.

Today, the tale of the upcoming city of Mundra is also the tale of

LIGHTING UP:
Mundra's plants account for 13 per cent of India's current coal-based installed thermal power capacity





these two power plants. Thanks to Tata Power's 4,000 MW UMPP and Adani Power's 4,620 MW plant, Mundra has come to earn the distinction of being home to the largest coal-fired power plants at a single location. The two plants account for 13 per cent of India's coal-based installed thermal power capacity of 120,100 MW. Also, Mundra is cited as a shining example of cooperation between corporate houses to develop infrastructure.

But, with policy issues and the higher cost of imported coal rendering the future of the two power plants uncertain, Mundra's future has come under a cloud.

Tale of Two Plants

The Tata and Adani plants at Mundra use the latest supercritical technology. While Tata Power's CGPL boasts of five 800 MW supercritical units, Adani Power has a mix of four 330 MW sub-critical and five 660 MW supercritical units. Supercritical plants are 4-5 per cent more efficient in terms of power generation and less polluting as compared to subcritical ones.

The two power plants are a gigantic maze of machines,

steel structures and concrete. The CGPL plant's two chimneys (Adani's has four) stand 275 metres tall, while the power station rises to 40 metres. Its five generating units are located in a single building that is accessible only by steel stairs and lifts. Located on 1,300 hectares of land, the construction of CGPL required 1.6 lakh tonnes of structural steel, 7 lakh cubic metres of concrete, 7,500 pilings, and digging of nearly 5 million cubic metres of earth. The plant has a 32-km-long boundary.

Awarded to Tata Power in December 2006, work on the UMPP — the first public-private partnership experiment in power generation of this scale — could begin only in 2008. Since the concept of UMPP (involving 800 MW supercritical technology) was new to India, CGPL sent 15 engineers to South Korea to be trained on a simulator.

HEAVY DUTY:
The advanced turbines and boilers at the Tata Power UMPP in Mundra

Doosan of South Korea supplied the boilers and Japan's Toshiba the turbine generators. CGPL commissioned the first unit in March 2012 and the fifth within a year of that. "It is a new benchmark since we took



only 54 months to commission the first unit from zero date," says Keshavraj Athavale, GM, construction, CGPL (see *On The Fast Track*).

While work on the Adani plant had started earlier, to its credit, it scored a first by commissioning a 660 MW supercritical plant in January 2011, less than 36 months from zero date. On its part, Power Grid Corporation constructed and commissioned three 400 KV double circuit transmission lines to evacuate power from CGPL. Being a purely private project, Adani Power had to construct its own transmission lines, covering about 1,430 km.

By December 2010, the Mundra Port and Special Economic Zone (MPSEZL), owned by the Adani Group, commissioned a fully mechanised coal handling terminal, within 30 months of the start of construction. With a capacity to handle 60 million tonnes of coal per annum, it is the world's largest such terminal and is mainly meant to feed the two power plants.

The Coal Stalemate

In 2011, when work on the power plants had reached fever pitch, their viability came under a cloud. Indonesia mandated that all long-term coal contracts for supply of coal from the country be done only at prevailing global benchmark prices as on 23 September 2011. The country earlier sold coal at prices that were nearly 40 per cent lower than international prices.

According to Tata Power, at the time of placing its bid, the price of Indonesian 6322 GCV (gross calorific value) grade coal was \$49.79 per metric tonne (MT), which rose to \$96.65 per MT by June 2012. The company had bagged the imported coal-based UMPP in 2006 with a bid of Rs 2.26 per kwh. "The change in law in Indonesia led to a hike in imported coal tariffs of more than 130 per cent," says a CGPL official. "The current average power purchase cost of all the five states that procure power from the Mundra UMPP is over Rs 3.30 per unit. Mundra will be cost effective if tariffs are revised upwards, in the range of Rs 2.90 and Rs 3.10," says Anil Sardana, MD, Tata Power.

Despite the crisis, Tata Power went on to complete and commission the UMPP by March 2012. The company attempted to mitigate the problems by experimenting with blending coal and importing cheap coal from Colombia and the US. "The plant design cannot take large quantities of blend and the availability from the US and Colombia due to the shale gas phenomenon is only a few lakh tonnes," says K.K. Sharma, ED and CEO, CGPL.

"The UMPP was a promise to the nation to meet our acute energy needs. We are committed to it," says Sardana. But fulfilment of that promise is threatening the very survival of the over 100-year-old Tata Power. Its total debt






MUNDRA
GUJARAT

READY TO FIRE

Four of the five units of the Tata Power UMPP have been ready for months but without coal


Unit 1	7 March 2012
Unit 2	30 July 2012
Unit 3	27 October 2012
Unit 4	21 January 2013
Unit 5	22 March 2013



ON THE FAST TRACK

Indian power producers have set new benchmarks in the time taken to set up plants

Company	Plant Capacity	Completion
Adani Power	Mundra, 660 MW	36 months
Tata Power	Mundra UMPP Unit 1	54 months
Kosep Korea	870 MW	60 months
Kosep	600 MW	60 months
Eskom South Africa	800 MW	68 months



LEADING THE PACK

India boasts of the largest coal-fired power plants at a single location (Capacity in MW)

8,620	Mundra (India)
5,780	Taichung (Taiwan)
5,400	Tuoketuo (China)
5,354	Belchatow (Poland)
5,000	Guodian Beilun (China)
5,000	Waigaoqiao (China)
5,000	Guohua Taishan (China)

has risen to Rs 30,000 crore (as of 30 September). Tata Power has taken loans worth over Rs 13,000 crore and invested another Rs 5,000 crore as equity in the Mundra project. Annual debt servicing stands at Rs 1,000 crore. The consolidated revenue in 2012-13 was Rs 33,394 crore, with a loss of Rs 85.43 crore. The previous year saw revenues of Rs 26,270 crore and a loss of Rs 1,087 crore. The current fiscal saw Tata Power notch up a loss of Rs 39.73 crore for the half-year ended 30 September.

"The losses crossed Rs 2,600 crore (as of March 2012) and total equity erosion may happen within the next 12-18 months unless the tariffs are revised," warns Sharma. The UMPP has to supply about 47.5 per cent of the capacity — 1,805 MW — to Gujarat (see *Power Pack*). It needs about 11 million tonnes of coal annually or 40,000 tonnes a day to run the Mundra plant.

Tata Power's long-term agreements for fuel supply are worked out in two ways — 55 per cent of its requirement is contracted on a fixed-price basis and the rest on escalation-linked-to-market-price. The strategy has hurt the company. The impact of the change in prices will see its coal purchase cost go up by Rs 1,113 crore (June 2012 reference rate) per annum, as per the existing supply contracts.

In April, Adani Power said it had incurred annual losses of Rs 790 crore on supplying power to Gujarat and Rs 580 crore on supplying to Haryana. The company has reported a net loss at Rs 1,071.91 crore for the quarter ended 30 September. It registered a loss of Rs 2,295 crore in 2012-13, and says imported coal was the biggest cause.

CGPL's Sharma says losses will be to the tune of Rs 1,873 crore per annum (estimates as per March 2012) and Rs 47,500 crore over 25 years — the tenure of the existing power purchase agreement (PPA).

Adani Power, which sells power to Gujarat and Haryana, and 20 per cent of its production as merchant power, was the first to demand a revision in PPAs.

Tata Power also tried to convince procurers to revise PPAs, and sought the help of the power ministry and the Indonesian government. Its lawyers in Singapore revisited the agreement with the contractor, IndoCoal Resources, which wanted the deal to be aligned with the changed Indonesian policy. Seven ships were chartered for bringing coal for Mundra UMPP from Indonesia.

After many months of negotiations, in April, the Central Electricity Regulatory Commission (CERC) allowed a temporary variable 'compensatory tariff' — pass through — till the fuel price situation 'stabilises' for Adani Power. The same was extended to CGPL later.

The Larger Issue

As directed by CERC, a panel headed by HDFC chairman Deepak Parekh suggested power producers should be allowed to increase tariffs by 45-55 paise. But procur-

POWER PACK

The lowdown on Tata Power's Mundra UMPP

- It will supply power to Rajasthan (380 MW), Punjab (475 MW), Haryana (380 MW), Gujarat (1,805 MW) and Maharashtra (760 MW)
- It is spread over 1,300 hectares
- A 13-km-long conveyor feeds coal directly from Mundra port
- Requires 12 MMTPA of coal to fire its plants
- Seven vessels ship coal to Mundra from Indonesia
- Rs 18,000 crore has been pumped into the 4,000 MW UMPP so far

ers and consumers are vehemently opposed to any revision of PPAs and consequent tariff hike. A final order is yet to be given by CERC and is expected in early 2014.

Power procurer Gujarat Urja Vikas Nigam contends that there is no provision under the PPA that provides for adjustments in the quoted tariff. Prayas Energy, which opposes the revision on behalf of consumers, pointed out in its submission before the CERC that Tata Power decided to keep 45 per cent of its energy costs open to escalation, and thus, risked its business to make profits. It also argued that Tata Power owned a 30 per cent stake in Bumi Resources mines in Indonesia and so, stood to benefit substantially from the new Indonesian laws. "For

every 30 per cent that we earn from coal trading, the spend on Mundra goes up by 100 per cent," counters S. Ramakrishnan, ED, Tata Power. "Further, we have to pay 45 per cent corporate income tax, 13 per cent royalty, 10 per cent withholding tax and 15 per cent dividend tax for income we bring into India, making profits negligible."

On allowing pass through, the CERC was a house divided. While three members led by former chairperson Pramod Deo approved a temporary revision and pass through due to the change in coal prices, a member, S. Jayaraman, vehemently opposed the order. Regulatory power could not be invoked to settle disputes arising out of commercial relations between parties, he said. "It is obvious that the petitioner has built in adequate provisions in the rates to cover variations and is using the notification of the Indonesian government as an opportunity to cover risks," said Jayaraman in his dissenting note in April.

Allowing renegotiation would not only render the bidding process redundant, it would also open up a potent legal issue affecting the rights of other bidders, said Jayaraman. The power ministry is faced with a dilemma — it wants to allow amendments to the PPAs to help project developers with pass-through provisions. But this will run into opposition from various quarters.

"I don't know how long can we go on like this," says Sharma, looking at the dark clouds over the Arabian Sea. He knows that there is no quick fix, even if CERC comes up with a final order and procurers agree to abide by it. **BW**

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