

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

1. Shri Ashok Basu, Chairperson
2. Shri Bhanu Bhushan, Member
3. Shri. A.H. Jung, Member
4. Shri Rakesh Nath, Member (EO)

**Petition No. 154/2005**

**In the matter of**

In-principle approval of project capital cost and financing plan of Torrent Power Generation Ltd. in respect of SUGEN Combined Cycle Power Project in the State of Gujarat.

**And in the matter of**

Torrent Power Generation Limited

....Petitioner

Vs

1. Torrent Power AEC Ltd, Ahmedabad
2. Torrent Power SEC Ltd, Surat
3. PTC India Ltd, New Delhi
4. Madhya Pradesh State Electricity Board, Jabalpur

**Respondents**

**The following were present:**

1. Shri Markand Bhatt, TPGL
2. Shri Sudhir Shah, TPGL
3. Shri Deepak Dalal, TPGL
4. Shir Mohan Ram, TPGL
5. Shri T.C. Upreti, Torrent Group
6. Shri. S.S. Sharma, PTC

**ORDER  
(DATE OF HEARING: 27.4.2006)**

The petition has been filed by the petitioner seeking in-principle approval of the project capital cost and financing plan in respect of its proposed 1100 MW SUGEN Combined Cycle Power Project (the project) in the State of Gujarat based on the Central Electricity Regulatory Commission (Terms and Conditions

of Tariff) Regulations, 2004 as amended, (hereinafter referred to as “the 2004 regulations”).

### **Project Details**

2. The petitioner, a company registered under the Companies Act, 1956 proposes to set up the project. Brief details of the project are as under:

(a) The project consists of three 376 MW modules each having an advance class gas turbine along with associated WH recovery boiler, a steam turbine and a generator in single shaft configuration with the following scheduled dates of commercial operation:

- (i) Module I - August, 2007
- (ii) Module II - December, 2007
- (iii) Module III - February, 2008

(b) The project is proposed to be set up at Akhakhol village, Kamrej Taluka, Surat District, approximately 2.5 kms off National Highway No.8 connecting Mumbai and Delhi and about 28 kms from Surat.

(c) The power is proposed to be sold as under:

I.	Torrent Power Surat Electricity Company Ltd (TPSEC)	564 MW
II.	Torrent Power Ahmedabad Electricity Company Ltd (TPAEC)	282 MW
III.	PTC India Ltd	100MW
IV.	On short term contracts	182 MW
	<b>Total</b>	<b>1128 MW</b>

(d) The petitioner has entered into PPAs with TPSEC and TPAEC and the same have been vetted by the Gujarat Electricity Regulatory

Commission and their observations have also been incorporated in the supplementary PPAs with the two distribution companies. The petitioner has stated that agreement with PTC, specifically provides for sale of electricity outside the State of Gujarat.

(e) Necessary approvals/clearances have been obtained from the State Government of Gujarat, State Pollution Control Board. The project has been accorded a Mega Power Project status vide Ministry of Power letter No. A-118/2003-IPC dated 1.9.05.

(f) Capital Cost of the project is indicated as US \$ 349.58 million plus Rs. 1508.30 crore including IDC and financing charges of Rs. 194.40 crore. Equivalent cost in Indian currency is Rs. 3096.09 crore at an exchange rate of Rs. 45.42 per US\$.

(g) Arrangement for long term supply of 53 TBTU of Natural Gas per annum is in final stages with three national level public sector undertakings.

(h) Detailed techno-commercial specifications for the project have been prepared by the petitioner in consultation with Tata Consulting Engineering Ltd (TCE) and reviewed by Development Consultant Ltd (DCL).

(i) The petitioner has appointed Engineering Procurement and Construction (EPC) Contractor through International Competitive

Bidding. CRISIL, a well known advisory agency had been appointed to design and oversee the process.

(j) Land for the project has been acquired and construction by EPC Contractor has already started.

### **Issues for consideration**

3. The issues arising for determination in this petition are:

(a) Whether the petition falls within the scope of proviso to Regulation 17 of the 2004 regulations.

(b) If so, whether the 'in principle' approval as prayed for, can be accorded.

### **Statutory Provisions**

4. Note to the Regulation 17 of the CERC notification dated 26.3.2004 reads as under:

Note: Scrutiny of the project cost estimates by the Commission shall be limited to the reasonableness of the capital cost, financing plan, interest during construction, use of efficient technology and such other matters for determination of tariff.

5. Provisos to Regulation 17 of the 2004 regulations provide as under:

“Provided further that any person intending to establish, operate and maintain a generating station may make an application before the Commission for 'in principle' acceptance of the project capital cost and financing plan before taking up a project through a petition in accordance with the procedure specified in the Central Electricity Regulatory Commission (procedure for making application for determination of tariff, publication of the application and other related matters) Regulations, 2004, as applicable from time to time. The petition shall contain information regarding salient features of the project including capacity, location, site

specific feature, fuel, beneficiaries, break up of capital cost estimates, financial package, schedule of commissioning, reference price level, estimated completion cost including foreign exchange component, if any, consent of beneficiary licensees to whom the electricity is proposed to be sold, etc.

Provided further that where the Commission has given 'in-principle' acceptance to the estimates of project capital cost and financing plan, the same shall be the guiding factor for applying prudence check on the actual capital expenditure. "

6. Section 79 (4) of the Electricity Act 2003 provides that "In discharge of its functions, the Central Commission shall be guided by the National Electricity Policy, National Electricity Plan and Tariff Policy published under section 3". Therefore, before entertaining this petition, it becomes necessary to ensure that the petition is in conformity with the National Electricity Policy, National Electricity Plan and Tariff Policy. Relevant provision in Para 5.1 of the Tariff Policy having a bearing on the issues under consideration, is extracted hereunder:

"Introducing competition in different segments of the electricity industry is one of the key features of Electricity Act, 2003. Competition will lead to significant benefits to consumers through reduction in capital costs and also efficiency of operations. It will also facilitate the price to be determined competitively. The Central Government has already issued detailed guidelines for tariff based bidding process for procurement of electricity by distribution licensees for medium or long-term period vide gazette notification dated 19<sup>th</sup> January 2005.

All future requirement of power should be procured competitively by distribution licensees except in cases of expansion of existing projects or where there is a State controlled/owned company as an identified developer and where regulators will need to resort to tariff determination based on norms provided that expansion of generating capacity by private developers for this purpose would be restricted to one time addition of not more than 50% of the existing capacity.

Even for the public sector projects, tariff should be decided on the basis of competitive bidding after a period of five years or when the Regulatory Commission is satisfied that the situation is ripe to introduce such competition."

7. It is to be seen that the Tariff Policy encourages competition rather than normative determination of tariff and mandates that all future requirements of power should be procured competitively by distribution licensees. Therefore, before according 'in-principle' approval for capital cost for the project, it becomes necessary to ascertain whether the project will fall under the ambit of the phrase "future requirement of power". A clarification was sought from Ministry of Power over the import of the term "future requirements". Ministry of Power vide their letter dated 28.3.2006 clarified as under:

"This matter has been considered taking into account the suggestions of the CERC and all the relevant aspects. Accordingly, it is hereby clarified that the power generation projects which satisfy any of the following conditions would be well within the provision of the Tariff Policy:

- (i) Where the Power Purchase Agreement (PPA) has been signed and approved by the Appropriate Commission prior to 6.1.06 or PPA has been signed and is pending before the Appropriate Commission on 6.1.06, such procurement would be treated as falling outside the scope of clause 5.1 of Tariff Policy as contractual obligation for procurement of power has been firmly established in such cases.
- (ii) Similarly, where appraisal of any power project has started before 6.1.06 by the relevant financial institutions for lending funds to the project on the basis of appropriate evidence of process of procurement of power by any utility, such procurement would be treated as falling outside the scope of clause 5.1 of the Tariff Policy provided that in all such cases final PPA is filed before the Appropriate Commission by 30<sup>th</sup> September 2006.
- (iii) In case of hydro projects, where detailed project report (DPR) has been submitted to the CEA/CWC before 6.1.06 for concurrence (except for projects where concurrence of DPR is not mandatory) and appropriate evidence of process of procurement of power by any utility exists before 6.1.06 such procurement would be treated as falling outside the scope of clause 5.1 of Tariff Policy, provided that in all such cases the final PPA is filed before the Appropriate Commission by 30<sup>th</sup> September 2006."

8. In the light of the above clarification the following facts are relevant for determining as to whether the project falls within the scope of the Tariff Policy:

(a) The petitioner has confirmed that the detailed financial appraisal of the project has been carried out by lenders with Infrastructure Development Finance Company Ltd as the lead.

(b) The petitioner has entered into Power Purchase Agreements with TPAEC Ahmedabad and TPSEC, Surat on 8.5.2004. These PPAs have been vetted by the Gujarat Electricity Regulatory Commission and the observation of the State Commission have been incorporated through supplementary PPAs.

(c) Financial closure of the project has been achieved on 22.9.2004 subject to obtaining in-principle approval from the Commission.

9. As per clause (b) of Section 79(1) of the Act, CERC will “regulate tariff of generating companies other than those owned or controlled by the Central government specified in clause (a), if such generating companies enter into or otherwise have a composite scheme for generation and sale of electricity in more than one State”. It is seen that the petitioner has not entered into any agreement for sale of power outside the State of Gujarat. One of the agencies with whom the petitioner has contracted to sell power viz. PTC may be selling power outside Gujarat. The petitioner will come under the purview of the Commission only if it has a composite scheme for generation and sale of electricity in more than one State. The time limit prescribed in the clarification given by Ministry of Power for

submission of the PPAs before the appropriate Commission is 30.9.2006. Accordingly, the petitioner's case is being examined subject to the condition that it will conclude PPAs for sale of power with more than one State before 30.9.2006. Subject to this condition, the petitioner's case is covered under para 7 (ii) above.

### Capital Cost

10. The petitioner has indicted the capital cost of Rs. 3096 crore (rounded) which consists of US\$ 349.58 million at the exchange rate of Rs. 45.42 per US\$ and Rs. 1508.30 crore including IDC and financing charges of Rs. 194.40 crore and working capital margin of 49.50 crore. Break up of the capital cost claimed by the petitioner is as under:

(Rs. in crore)		
S. No	Description	Amount
(a)	Cost of Land and Site development	27.10
(b)	Plant and equipment	1836.83
(c)	Initial spares	167.41
(d)	Taxes and duties	Included in (b) and (c) above
(e)	Total plant and equipment including taxes and duties	2004.24
(f)	Civil works	483.32
(g)	Construction & pre-commissioning works	162.94
(h)	Overheads	99.30
(i)	Contingency	
(j)	Capital cost excluding IDC & FC	2852.05
(k)	Interest during construction	181.40
(l)	Financing charges	13.00
(m)	Interest during construction and finance charges	194.40
(n)	Capital cost including IDC & FC	3046.45
(o)	Capital cost Rs. crore/MW	2.70
(p)	Working capital margin	49.50
(q)	Capital cost including IDC&FC and WCM	3095.95
(r)	Capital cost/MW	2.74



11. As per the 2004 regulations, working capital margin is not a part of the capital cost and needs to be separately dealt with. Accordingly Rs. 49.50 crore claimed on account of working capital margin has been taken out. This will bring the capital cost to Rs. 3046.80 crore comprising US\$ 349.58 million at the exchange rate of Rs. 45.42 per US\$ and Rs. 1458.80 crore. Further, reduction is required to be made on account of the cost of initial spares as explained hereunder:

(a) Hard cost of the project without considering IDC and FC works out to 2852.19 crore which comprises US\$ 349.58 million at the exchange rate of Rs. 45.42 per US\$ and Rs. 1264.40 crore. The value of initial spares included in this hard cost is Rs. 167.41 crore comprising US\$ 30.57 million at the exchange rate of Rs. 45.42 per US\$ and Rs. 28.56 crore.

(b) Regulation 17 of the 2004 regulations provides that the capital cost shall include capitalised initial spares, subject to the ceiling of 4% of the original project cost, in respect of Gas Turbine/Combined Cycle generating stations. In the instant case, the cost of initial spares as worked out above is about 5.87% of the hard cost.

(c) Taking 4% of the hard cost in foreign and domestic component of the hard cost, permissible cost of the initial spares works out to Rs. 111.86 crore. This will comprise US\$ 20.426 million at the exchange rate of Rs. 45.42 per US\$ and Rs. 19.08 crore, on pro-rata basis..

(d) Based on the above foreign component of the capital cost claimed by the petitioner needs to be reduced by US\$ 10.144 (30.57-20.426) million and domestic component of the capital cost needs to be reduced by Rs. 9.48 (28.56- 19.08) crore.

(e) After the above modification, hard cost of the project works out to 2796.64 crore comprising US\$ 339.436 million at the exchange rate of Rs. 45.42 per US\$ and Rs. 1254.92 crore.

### **IDC and Financing Charges**

12. The petitioner has claimed Rs. 194.40 crore as IDC and FC (Rs.181.4 crore and 13.0 crore) based on financing plan of debt of Rs. 2167 crore and equity of Rs. 929 crore. The petitioner has indicated that the equity claimed by it includes a sum of Rs. 93 crore as quasi equity, which in effect is nothing but debt. Consequent to the reduction of the capital cost on account of WCM and initial spares, the quantum of debt and equity also get modified proportionately. Accordingly, the revised figures towards IDC and FC are as under:

	Hard cost	Debt	IDC	FC
As per petition	2852.1	2167+93	181.4	13
As revised	2796.50	2215.94	177.86	12.74

13. Since all the loans carry floating rates of interest, IDC shall be calculated on the basis of actual rate of interest applicable on the date of drawal for loans, drawn up to the date of commercial operation. Besides, financial charges shall be on actual basis.

## **Financing Plan**

14. The petitioner has submitted the financing plan with Rs. 2167 crore as debt and Rs. 929 crore as equity which includes Rs. 93 crore shown as quasi equity. Based on the above figures, debt-equity ratio has been indicated as 70:30. The amount shown by the petitioner as quasi equity is in effect a debt from M/s Siemens to be replaced by equity at a later date. Considering this amount as debt rather than equity, total amount of debt in the capital cost works out to Rs. 2260 crore and equity works out to Rs. 836 crore. Accordingly debt - equity ratio works out to 73:27. Reduction in capital cost due to separation of WCM and cost of initial spares will be done proportionately so that the debt-equity ratio will remain 73:27.

15. However, actual debt and equity actually used as on the date of commercial operation will be the basis for the purpose of tariff fixation, subject to the ceiling of 30% for equity

## **Conclusion**

16. Based on the above, in-principle approval is accorded for the project undertaken by the petitioner, at a capital cost comprising US\$. 339.436 million + Rs. 1448.43 crore including IDC and FC and excluding WCM, subject to the following conditions:

- (a) The petitioner shall conclude PPA for sale of power in more than one State before 30.9.2006 at least for 85% of its capacity.

(b) The capital cost and the financing plan for which in-principle approval has been accorded through this order shall form the basis for prudence check on the actual capital expenditure.

(c) The norms specified in the 2004 regulations are the ceiling norms and the parties may agree to improved norms and where the improved norms are agreed to, such norms shall be the basis for determination of tariff. No additional capital expenditure incurred on maintaining operational and performance parameters shall be admissible for tariff enhancement during the rated life of the project.

(d) Debt-equity ratio will be subject to the ceiling of 30% in respect of equity.

17. We would also like to make it clear that this in-principle clearance relates only to the capital cost and financing charges. As far as cost of fuel (gas) is concerned the petitioner shall make all efforts to ensure a cost effective long term supply agreement. Petitioner will accordingly keep the Commission informed of the progress made in this regard and submit fuel supply agreements to the Commission.

18. This order disposes off petition No. 154/2005

Sd/- <b>(RAKESH NATH)</b> <b>MEMBER</b>	Sd/ <b>(A.H. JUNG)</b> <b>MEMBER</b>	sd/- <b>(BHANU BHUSHAN)</b> <b>MEMBER</b>	Sd/- <b>(ASHOK BASU)</b> <b>CHAIRPERSON</b>
---	--	---	---

**New Delhi dated the 22<sup>nd</sup> August 2006**