

**Before the Appellate Tribunal for Electricity  
Appellate Jurisdiction**

**Appeal No. 213 of 2006**

**Dated: 12<sup>th</sup> February, 2008.**

**Present: Hon'ble Mr. A. A. Khan, Technical Member  
Hon'ble Mrs. Justice Manju Goel, Judicial Member**

**IN THE MATTER OF:**

Kerala State Electricity Board ...Appellant

Versus

Central Electricity Regulatory Commission & Ors. ....Respondent

Counsel for the Appellant(s) : Mr. M.T. George, & Ms C.S. Rajani

Counsel for the Respondent(s): Mr. M.G. Ramachandran  
Mr. Anand K. Ganeshan &  
Mr. Swapna Seshadri for NTPC  
Mr. T. Rout, JD(Legal) and  
Mr. B. Sreekumar, AC(Legal) for CERC

**JUDGMENT**

**Per Hon'ble Mr. Anwar Ahmad Khan, Technical Member**

The Appellant, Kerala State Electricity Board (hereinafter referred to as 'KSEB')  
in this appeal has challenged the *suo moto* order passed by the Central Electricity  
Regulatory Commission (hereinafter referred to as the 'Central

Commission/CERC') on 30 Jun 06 in Petition NO. 67 of 2003 (*Suo moto*) whereby the Kayamkulam Rajiv Gandhi Combined Cycle Power Project (for brevity hereinafter referred to as 'RGCCPP') owned by National Thermal Power Corporation Limited (hereinafter referred to as the 'NTPC'), a Central Power Sector Undertaking dedicated to supply power to the Appellant is brought under the purview of Availability Based Tariff (ABT) with effect from 01 Jul 06.

2. The Appellant has challenged the impugned order primarily on the following grounds:

- (a) The Central Commission has no jurisdiction to introduce ABT mechanism for generating stations supplying within the state of Kerala.
- (b) The Central Commission has issued order dated 04 Jul 05 in *Suo moto* petition 67 of 2003 directing NTPC and KSEB to implement ABT regime in RGCCPP with effect from 01.12.2005 without giving opportunity to the beneficiaries, generator or other stakeholders to represent their views/concerns.
- (c) Uniqueness of RGCCPP's operation on an economically unviable fuel of Naphtha has not been appreciated by CERC as its order dated 04 Jul 05 for implementing ABT – mechanism was extended to it

alongwith lower fuel cost of coal and gas-based stations without any discrimination. Higher viable cost of energy generated by RGCCP compared to UI-charges at frequency lower than 50 Hz will tempt the generator to adopt operation strategy such that it will opt for payment of charges at UI- rates and will avoid paying higher variable cost of generation by under generating below the schedule, and will promote gaming by the generator. The Appellant has butteressed this claim by furnishing operation data in its additional grounds.

### **Facts of the Case**

3. The KSEB, constituted by the Government Kerala under the Electricity (supply) Act 1948 is an integrated board dealing with the business of generation, transmission and distribution of electricity in the State of Kerala.

4. RGCCPP is a project established in Kayamkulam in the State of Kerala and owned by NTPC which is administered by Ministry of Power, Government of India. The Plant is based on Naphtha fuel with an installed capacity of 359.58 MW. The entire power from this station is dedicated for use within the State of

Kerala and KSEB has been having PPA with NTPC for availing the entire power from this station.

5. In view of the unprecedented hike in price of Naphtha fuel the energy from this plant has become economically unviable and KSEB could not schedule the power from this project due to very high variable cost of generation. Consequently the capacity of the station remained unutilized for a long period, Government of India, thereafter, for utilization of the assets, stepped in and temporarily allocated nearly 50% of the station to Tamil Nadu Electricity Board (TNEB) and compensated the high energy charges of the plant by the purchasers (i.e. KSEB and TNEB) with cheaper power from the Stations in other regions owned by NTPC resulting into composite tariff of Rs. 2.5/Kwhr. Balance 50% of the capacity charge is payable by KSEB. The arrangement is stated to be still continuing. The appellant claims that it has already paid about Rs. 1190 crores towards fixed costs of this plant against the capital cost of Rs. 1125.31 crores approved by the Central Commission.

6. Realizing that full fixed cost of the plant having been recovered from KSEB (alongwith a part of fixed cost revenue from TNEB due to temporary allocation to it) and imminent Possibility of LNG being made available for plant

operation which would further reduce the operating cost making the generation from the station more economic, KSEB does not want to give up the benefits it is entitled to receive. The averment of the appellant is that it has right to utilize the full capacity of this plant and it can choose to sell power to other consumers on terms and conditions agreed between it and KSEB. The Appellant apprehends that application of ABT mechanism to RGCCPP will deprive its lien/control over it and make it loose the emerging benefits in future. This apprehension of KSEB is misplaced as CERC's order dated 04 Apr. 06 in para (i) clearly assures that "*KSEB shall continue to have 100% lien over the generating station unless it itself decides to forego a part of its (and only in such a case a part of the capacity maybe allocated to some other beneficiary). Extension of ABT to the generating station, therefore, would not deprive KEB of any benefit in any manner. The scheduling of the generating station shall continue to be carried out by SLDC of Kerala (not by SRLDC), and KSEB's apprehensions of being by passed is not necessarily valid.*"

### **ABT and Unschedule Interchange (UI Charge)**

7. In order to better appreciate the implication of introduction of ABT in the instant case we need to understand the mechanism of ABT. The rationale of ABT mechanism is to enforce grid discipline to normalize frequency ideally at 50 Hz so that serious damages both at generation and load ends caused due to wide

fluctuations in frequency could be prevented. During peak load hours the frequency goes down to 48.0 – 48.5 Hz, while during off-peak hours it goes up to 50.5 to 51 Hz with rapid change of 1 Hz in 5 to 10 minutes for many hours everyday. It causes frequent grid disturbances, tripping of generating stations, grid collapses, leading to interruption of supply and black out in wide area of electricity consumption and disintegration of regional grids. These problems could be remedied by :

- (a) **During Peak Load Hours:** Maximizing generation and load shedding equal to deficit in generation
- (b) **During Non-peak Hours:** Backing down of generation to match load reduction on the basis of merit order generation.

8. Prior to introduction of ABT, fixed charges for generation was based on the Actual generation proportionately shared by the purchasers. The liability of the fixed charges based on the actual drawl of energy allowed the purchasers to draw electricity from the grid at their whims and pleasure causing the grid frequency to fluctuate from 48.5 Hz to 51.5 Hz endangering the grid collapse and damages to generator and load ends. The second component of tariff i.e. rate of energy share is for the consumption of units of energy and is the same in both tariff systems i.e.

the one sans ABT and the other with ABT. In the existing regime even when ABT is not applied on a generating station the recovery of full cost is related to availability to be determined by CERC. In ABT scheme or otherwise the fixed charge is based on the declared generation capacity (with full fixed charge recovered at determined Target availability) proportionately shared by purchasers in ratio of the capacities allocated to them. The progressive reduction of fixed cost because of repayment of loan will continue to be available to the beneficiaries.

9. The Only differentiating feature in ABT regime which is not a part of tariff but is a commercial mechanism to maintain grid discipline, is the third charge namely Unschedule Interchange (UI) of power exchange. It provides incentive and disincentive to generators and beneficiaries for generation and draws above/below given schedule respectively. The UI charges are levied at the occurrence of the following :

**The UI charges are payable when**

- (a) Beneficiary draws excess power than scheduled that results into drop in frequency.

(b) Generator generates less than the scheduled capacity which causes shortage of equivalent quantity of power in the grid and consequent drop in the frequency.

**The UI charges are receivable when**

(a) Beneficiary drawn less than the scheduled quantity of power and such an under drawl benefits in increasing the grid frequency.

(b) Generator generates more than the scheduled capacity that contributes to strengthening of the grid by increasing frequency.

10. The appellant in its submission of additional grounds for the appeal has stated that prohibitive high variable cost and long duration required for shut down and start-up compels it not to schedule, RGCCPP. In the Merit Order Dispatch (MOD) mechanism, RGCCPP will not be scheduled unless its variable cost is sweetened by the supply of Compensating cheaper energy to the purchasers or by operating the station on some cheaper fuel like LNG. It argues that since Merit Order Dispatch mechanism is specified to be followed in ABT, and scheduling of RGCCPP in MOD scheme is not feasible, the ABT – regime cannot be introduced



in this specific station. The Appellant has stated that the variable cost of generation from RGCCPP being much higher than the UI charges at relevant frequency, the generation will have the temptation to under generate to save cost.

11. Respondent No. 3, NTPC in its submission has furnished the data of schedule and actual generation from Kayamkulam station of each day of operation from 01 Jul. 06 to 30 Sep. 07. NTPC with the help of the data furnished by it has stated that in any event if the plant has ever under-generated than what was scheduled, it was marginal and insignificant and they have not been indulging in any gaming. This is also the finding of the Central Commission in its impugned order.

12. It may be observed that even if the station is not operating under ABT the liability of KSEB to pay at the rate of variable charges under any situation will not be impacted. It is another matter that by paying at UI rate the NTPC will be saving some cost which considering size of the operation is quite marginal and insignificant. It may thus be seen that KSEB would be financially immune on account of deviation of generating station from the given schedule and sharing of capacity with TNEB also does not change this status. The KSEB's liability being

dependant on the schedules given will remain unchanged regardless of generation as per Schedule or under-generation.

13. We have also observed that in the impugned order dated 30 Jun 06 the Central Commission has recorded that *“in response to our query the representative of NTPC gave categorical assertion that the generating stations would not generate below given schedule unless the frequency goes above 50 Hz and except due to technical limitation under exceptional circumstances.”* We opine that such kind of assurances in the commercial transactions is meaningless unless the scheme has built-in deterrence. We have now been informed by the Respondent No. 3, NTPC that this deterrence has been introduced by the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (4<sup>th</sup> Amendment) Regulations, 2007, to be brought into effect from 07 Jan. 08 whereby the UI rate have been upwardly revised up to Rs. 10/- per Kwhr. and thus the variable cost of the plant will no longer be higher than the UI charges. This disposes of the issue raised by the Appellant as mentioned in para 2(c) above.

14. Reverting to the larger issue of applicability of ABT in single beneficiary state, it may be worthwhile to mention that Respondent No. 3, NTPC, in its submission has submitted the judgment by this Tribunal in Appeal No. 152 of

2005 passed on 03 Jan 06 in the case of **Central Power Distribution Company and Ors. Vs. CERS and Anr.** which like in the instant case also deals with a single beneficiary State with the similar issues raised in case of Simhadri Super Thermal Power Station (STPC) of NTPC established in Andhra Pradesh.

15. In the aforesaid case also the Simhadri STPS was brought under the purview of ABT by the order of CERC passed on 04 Jul 06 arising out of the same petition as in the instant case i.e. petition no. 67 of 2003 (*Suo Moto*). This Tribunal while rejecting the plea of the appellant about lack of jurisdiction of the Central Commission to introduce ABT in a Single beneficiary Plant and not finding any merits dismissed the appeal by its aforesaid judgment and order. The appellant's grievance of violation of principles of natural justice by the Central commission for not providing opportunity of being heard is also rejected by the Tribunal. The aforesaid judgment in para 7 reads thus:

*“7. In view of the aforesaid discussion, we have no hesitation in rejecting the plea of the appellant that the CERC lacked the jurisdiction to introduce ABT for Simhadri thermal station”.*

16. The aforesaid judgment further records thus:

*“8. As regards the second submission of the appellant that no opportunity of hearing was provided to it before the CERC passed the impugned order is of no avail to the appellant. The impugned order specifically point out that the CERC in its earlier order dated January 4, 2000 in petition No.2/99 (suo moto) after going through a transparent process of hearing and consultations with all concerned had resolved to implement the ABT regime in all the regions of the country in a phased manner. Therefore, it is clear that at the time of the earlier decision the concerned agencies were heard. The decision to implement the ABT scheme was taken as far back as January 4, 2000. The impugned order is a logical step towards the implementation of the earlier order. Earlier the scheme of ABT was implemented in a phased manner in the case of generating stations supplying electricity to more than one State as per the following details:*

<i>a.</i>	<i>Western Region</i>	<i>1.7.2003</i>
<i>b.</i>	<i>Northern Region</i>	<i>1.12.2002</i>
<i>c.</i>	<i>Southern Region</i>	<i>1.1.2003</i>
<i>d.</i>	<i>Eastern Region</i>	<i>1.4.2003</i>
<i>e.</i>	<i>North-Eastern Region</i>	<i>1.11.2003</i>

*9. It has also been noted in the impugned order that ABT has been applicable in all the regions of the country for sufficient time and the results point to its beneficial effect. As per the Commission,*

*the beneficial results of ABT are evident in the scheduling and despatch of generating capacity and maintenance of grid frequency within the optimum frequency band. The appellant has not placed any material on record to controvert the opinion of the Commission or to show any baneful effect of the ABT.*

10. *The Central Government on February 12, 2005 has notified National Electricity Policy. Para 5.7.1 (b) of the Policy needs to be taken note of. The said para reads as follows:*

*“The ABT regime introduced by CERC at the national level has had a positive impact. It has also enabled a credible settlement mechanism for intra-day power transfers from licenses with surpluses to Licenses experiencing deficits. SERCs are advised to introduce the ABT regime at the State level within one year.”*

*Thus, the National Electricity Policy, which is required under sub-Section 4 of Section 79 of the Act to guide the CERC in discharge of its functions, also recognizes the positive impact of the ABT regime.”*

17. It is pertinent to note that the aforesaid judgment of the Tribunal was challenged in the Hon’ble Supreme Court by Civil Appeal No. 2104 of 2006. The Hon’ble Supreme Court in its detailed Judgment dated 17 Aug. 07 has dismissed the appeal and upheld the judgment of this Tribunal.

18. It may be pointed out that the Central commission in its order dated 04 Jun 2000 after going through the transparent process of hearing and consultation with all stake holders had resolved to implement ABT regime in all the 5 power regions of the country in phased manner and Southern Region of which the Appellant is a constituent the ABT was to come into effect from 01 Jan 03. The impugned order in this Appeal is based on the Central Commission's Order dated 04 Jan 2000. It, therefore, cannot be said that the stake holders were not given opportunities to put forward their views on the purpose and plan of introducing ABT regime. The impugned order is merely an order reflecting the implementation of the decision arrived at by due process of consultation in the earlier order of the Central Commission.

19. In view of the above, we find no merit in this Appeal and dismiss it accordingly, with no order as to costs.

**(A. A. Khan)**  
Technical Member

**(Manju Goel)**  
Judicial Member

Dated : 12<sup>th</sup> February, 2008.