

Central Electricity Regulatory Commission
Core 3, 7th Floor, Scope Complex, New Delhi – 110 003.
(Tele No. 24363174 FAX No. 24360010)

No. L-7/25(5)/2003-CERC

3rd September 2004

NOTIFICATION

In exercise of powers conferred under Section 178 of the Electricity Act, 2003 (36 of 2003), and all other powers enabling in this behalf, and after previous publication, the Central Electricity Regulatory Commission hereby makes the following regulations to amend the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, hereinafter referred to as “the principal regulations”, namely:-

1. **Short title and commencement:** (1) These regulations may be called the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2004.

(2) Regulations 4, 9 and 13 of these regulations shall come into force from 1.10.2004, regulations 5 and 10 have come into force from 7th July 2004 in terms of order of that date in Petition No 67/2003 (suo motu) and all other regulations shall be deemed to have come into force with effect from 1.4.2004.

2. **Amendment of Regulation 20:** For Regulation 20 of the principal regulations, following shall be substituted, namely:-

“20. **Debt-Equity Ratio.** (1) In case of the existing generating stations, debt-equity ratio considered by the Commission for fixation of tariff for the period ending 31.3.2004 shall be considered for determination of tariff.

(2) In case of the generating stations for which investment approval was accorded prior to 1.4.2004 and which are likely to be declared under commercial operation during the period from 1.4.2004 to 31.3.2009, debt-equity in the ratio of 70:30 shall be considered:

Provided that where deployment of equity is less than 30%, the actual equity deployed shall be considered for the purpose of determination of tariff.

Provided further that the Commission may in appropriate cases consider equity higher than 30% for the purpose of determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that deployment of equity more than 30% was in the interest of general public;

(3) In case of the generating stations for which investment approval is accorded on or after 1.4.2004, debt-equity in the ratio of 70:30 shall be considered for the purpose of determination of tariff:

Provided that where deployment of equity is less than 30%, the actual equity deployed shall be considered for the purpose of determination of tariff.

(4) The debt and equity amount arrived at in accordance with above sub-clause (1), (2) or (3), as the case may be, shall be used for calculation of interest on loan, return on equity, advance against depreciation and foreign exchange rate variation.”

3. **Amendment of Regulation 24:** For Regulation 24 of the principal regulations, following shall be substituted, namely:-

“24. **Unscheduled Interchange(UI) Charges:** (1) Variation between actual generation or actual drawal and scheduled generation or scheduled drawal shall be accounted for through Unscheduled Interchange (UI) Charges. UI for a generating station shall be equal to its actual generation minus its scheduled generation. UI for a beneficiary shall be equal to its total actual drawal minus its total scheduled drawal. UI shall be worked out for each 15-minute time block. Charges for all UI transactions shall be based on average frequency of the time block and the following rates shall apply from 1.4.2004 to 30.9.2004:

Average Frequency of time block	UI Rate (Paise per kWh)
50.5 Hz and above	0.0
Below 50.5 Hz and up to 50.48 Hz	8.0
Below 49.04 Hz and up to 49.02 Hz	592.0
Below 49.02 Hz	600.00
Between 50.5 Hz and 49.02 Hz	linear in 0.02 Hz step

(Each 0.02 Hz step is equivalent to 8.0 paise /kWh within the above range)

The following rates shall apply with effect from 1.10.2004:

Average frequency of time block (Hz)		UI Rate
Below	Not below	(Paise per kWh)
----	50.50	0.0
50.50	50.48	6.0
50.48	50.46	12.0
-----	-----	-----
-----	-----	-----
49.84	49.82	204.0
49.82	49.80	210.0
49.80	49.78	219.0
49.78	49.76	228.0
-----	-----	-----
-----	-----	-----
49.04	49.02	561.0
49.02	-----	570.0

(Each 0.02 Hz step is equivalent to 6.0 paise/kWh in the 50.5-49.8 Hz frequency range, and to 9.0 paise/kWh in the 49.8-49.0 Hz frequency range.)

Note

The above average frequency range and UI rates are subject to change through a separate notification by the Commission.

(2) (i) Any generation up to 105% of the declared capacity in any time block of 15 minutes and averaging up to 101% of the average declared capacity over a day shall not be construed as gaming, and the generator shall be entitled to UI charges for such excess generation above the scheduled generation (SG).

(ii) For any generation beyond the prescribed limits, the Regional Load Despatch Centre shall investigate so as to ensure that there is no gaming, and if gaming is found by the Regional Load Despatch Centre, the corresponding UI charges due to the generating station on account of such extra generation shall be reduced to zero and the amount shall be adjusted in UI account of beneficiaries in the ratio of their capacity share in the generating station.”

4. **Amendment of Regulation 26:** For Regulation 26 of the principal regulations, following shall be substituted, namely:-

“26. **Late Payment Surcharge:** In case the payment of bills of capacity charges and energy charges by the beneficiary or beneficiaries is delayed beyond a period of 60 days from the date of billing, late payment surcharge at the rate of 1.25% per month shall be levied by the generating company.”

5. **Amendment of Regulation 30:** For Note 1 and Note 2 below clause (i) of regulation 30 of the principal regulations (Billing and Payment of Capacity Charges), following shall be substituted, namely:-

“Note 1

Allocation of total capacity of central sector generating stations is made by Central Government from time to time, which also has an unallocated portion. Allocation of the unallocated portion as made by the Central Government from time to time, for the total unallocated capacity shall be notified by the Member Secretary, Regional Electricity Board/Regional Power Committee in advance, at least 24 hours prior to such change in allocation taking effect. The total capacity share of any beneficiaries would be sum of its capacity share plus allocation out of the unallocated portion. In the absence of any specific allocation of unallocated power by the Central Government, the unallocated power shall be added to the allocated shares in the same proportion as the allocated shares.

Note 2

The beneficiaries may propose surrendering part of their allocated share to other States within/outside the region. In such cases, depending upon the technical feasibility of power transfer and specific agreements reached by the generating company with other States within/outside the region for such transfers, the shares of the beneficiaries may be re-allocated by the Central Government for a specific period. When such re-allocations are made, the beneficiaries who surrender the share shall not be liable to pay capacity charges for the surrendered share. The capacity charges for the capacity surrendered and reallocated as above shall be paid by the State(s) to whom the surrendered capacity is allocated. Except for the period of reallocation of capacity as above, the beneficiaries of the generating station shall continue to pay the full fixed charges as per allocated capacity shares. Any such reallocation shall be notified by the Member Secretary, Regional Electricity Board/Regional Power Committee in advance, at least 24 hours prior to such reallocation taking effect.”

6. **Amendment of Regulation 31:** For Clause (viii) of regulation 31 of the principal regulations, following shall be substituted, namely:-

“(viii) ‘**Cut off date**’ means the date of first financial year closing after one year of the date of commercial operation of the generating station.”

7. **Amendment of Regulation 36:** For Regulation 36 of the principal regulations, following shall be substituted, namely:-

“36. **Debt-Equity Ratio.** (1) In case of the existing generating stations, debt–equity ratio considered by the Commission for fixation of tariff for the period ending 31.3.2004 shall be considered for determination of tariff.

(2) In case of the generating stations for which investment approval was accorded prior to 1.4.2004 and which are likely to be declared under commercial operation during the period 1.4.2004 to 31.3.2009, debt-equity in the ratio of 70:30 shall be considered:

Provided that where deployment of equity is less than 30%, the actual equity deployed shall be considered for the purpose of determination of tariff.

Provided further that the Commission may in appropriate cases consider equity higher than 30% for the purpose of determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that deployment of equity more than 30% was in the interest of general public;

(3) In case of the generating stations for which investment approval is accorded on or after 1.4.2004, debt-equity in the ratio of 70:30 shall be considered for the purpose of determination of tariff:

Provided that where deployment of equity is less than 30%, the actual equity deployed shall be considered for the purpose of determination of tariff.

(4) The debt and equity amount arrived at in accordance with above sub-clause (1), (2) or (3), as the case may be, shall be used for calculation of interest on loan, return on equity, advance against depreciation and foreign exchange rate variation.”

8. **Amendment of Regulation 42:** For Regulation 42 of the principal regulations, following shall be substituted, namely:-

“42. **Unscheduled Interchange (UI):** (1) Variation between actual generation or actual drawal and scheduled generation or scheduled drawal shall be accounted for through Unscheduled Interchange (UI) charges. UI for a generating station shall be equal to its actual generation minus its scheduled generation. UI for a beneficiary shall be equal to its total actual drawal minus its total scheduled drawal. UI shall be worked out for each 15-minute time block. Charges for all UI transactions shall be based on average frequency of the time block and the following rates shall apply from 1.4.2004 to 30.9.2004:

Average Frequency of time block	UI Rate (Paise per kWh)
50.5 Hz and above	0.0
Below 50.5 Hz and up to 50.48 Hz	8.0
Below 49.04 Hz and up to 49.02 Hz	592.0
Below 49.02 Hz	600.00
Between 50.5 Hz and 49.02 Hz	linear in 0.02 Hz step

(Each 0.02 Hz step is equivalent to 8.0 paise /kWh within the above range)

The following rates shall apply with effect from 1.10.2004:

Average frequency of time block (Hz)		UI Rate
Below	Not below	(Paise per kWh)
----	50.50	0.0
50.50	50.48	6.0
50.48	50.46	12.0
----	----	----
----	----	----
49.84	49.82	204.0
49.82	49.80	210.0
49.80	49.78	219.0
49.78	49.76	228.0
----	----	----
----	----	----
49.04	49.02	561.0
49.02	----	570.0

(Each 0.02 Hz step is equivalent to 6.0 paise/kWh in the 50.5-49.8 Hz frequency range, and to 9.0 paise/kWh in the 49.8-49.0 Hz frequency range.)

Note

The above average frequency range and UI rates are subject to change through a separate notification by the Commission.

(2) (i) Any generation up to 105% of the declared capacity in any time block of 15 minutes and averaging up to 101% of the average declared capacity over a day shall not be construed as gaming, and the generator shall be entitled to UI charges for such excess generation above the scheduled generation (SG).

(ii) For any generation beyond the prescribed limits, the Regional Load Despatch Centre shall investigate so as to ensure that there is no gaming, and if gaming is found by the Regional Load Despatch Centre, the corresponding UI charges due to the generating station on account of such extra generation shall be reduced to zero and the amount shall be adjusted in UI account of beneficiaries in the ratio of their capacity share in the generating station.”

9. **Amendment of Regulation 44:** For Regulation 44 of the principal regulations, following shall be substituted, namely:-

“44. **Late Payment Surcharge:** In case the payment of bills of capacity charges and energy charges by the beneficiary or beneficiaries is delayed beyond a period of 60 days from the date of billing, late payment surcharge at the rate of 1.25% per month shall be levied by the generating company.”

10. **Amendment of Regulation 48:** For note 1 and Note 2 below clause (i) of regulation 48 of the principal regulations (Billing and Payment of Capacity Charges), following shall be substituted, namely:-

“Note 1

Allocation of total capacity of central sector generating stations is made by Central Government from time to time, which also has an unallocated portion. Allocation of the unallocated portion as made by the Central Government from time to time, for the total unallocated capacity shall be notified by the Member Secretary, Regional Electricity Board/Regional Power Committee in advance, at least 24 hours prior to such change in allocation taking effect. The total capacity share of any beneficiaries would be sum of its capacity share plus allocation out of the unallocated portion. In the absence of any specific allocation of unallocated power by the Central Government, the unallocated power shall be added to the allocated shares in the same proportion as the allocated shares.

Note 2

The beneficiaries may propose surrendering part of their allocated share to other States within/outside the region. In such cases, depending upon the technical feasibility of power transfer and specific agreements reached by the generating company with other States within/outside the region for such transfers, the shares of the beneficiaries may be re-allocated by the Central Government for a specific period. When such re-allocations are made, the beneficiaries who surrender the share shall not be liable to pay capacity charges for the surrendered share. The capacity charges for the capacity surrendered and reallocated as above shall be paid by the State(s) to whom the surrendered capacity is allocated. Except for the period of reallocation of capacity as above, the beneficiaries of the generating station shall continue to pay the full fixed charges as per allocated capacity shares. Any such reallocation shall be notified by the Member Secretary, Regional Electricity Board/Regional Power Committee in advance, at least 24 hours prior to such reallocation taking effect.”

11. **Amendment of Regulation 54:** For Regulation 54 of the principal regulations, following shall be substituted, namely:-

“54. **Debt-Equity Ratio.** (1) In case of the existing project, debt–equity ratio considered by the Commission for fixation of tariff for the period ending 31.3.2004 shall be considered for determination of tariff.

(2) In case of the transmission system for which investment approval was accorded prior to 1.4.2004 and which is likely to be declared under commercial operation during the period 1.4.2004 to 31.3.2009, debt-equity in the ratio of 70:30 shall be considered:

Provided that where deployment of equity is less than 30%, the actual equity deployed shall be considered for the purpose of determination of tariff.

Provided further that the Commission may in appropriate case consider equity higher than 30% for the purpose of determination of tariff, where the transmission licensee is able to establish to the satisfaction of the Commission that deployment of equity more than 30% was in the interest of general public;

(3) In case of the transmission system for which investment approval is accorded on or after 1.4.2004, debt-equity in the ratio of 70:30 shall be considered for the purpose of determination of tariff:

Provided that where deployment of equity is less than 30%, the actual equity deployed shall be considered for the purpose of determination of tariff.

(4) The debt and equity amount arrived at in accordance with above sub-clause (1), (2) or (3), as the case may be, shall be used for calculation of interest on loan, return on equity, advance against depreciation and foreign exchange rate variation.”

12. **Amendment of Regulation 60:** For Regulation 60 of the principal regulations, following shall be substituted, namely:-

“60. **Incentive** : (1) The transmission licensee shall be entitled to incentive @ 1% of equity for each percentage point of increase in annual availability beyond the target availability prescribed under regulation 51, in accordance with the following formula:

$$\text{Incentive} = \text{Equity} \times [\text{Annual availability achieved} - \text{Target availability}] / 100$$

(2) Incentive shall be shared by the long-term customers in the ratio of their average allotted transmission capacity for the year.”

13. **Amendment of Regulation 62:** For Regulation 62 of the principal regulations, following shall be substituted, namely:-

“62. **Late Payment Surcharge:** In case the payment of bills of the transmission charges by the beneficiary or beneficiaries is delayed beyond a period of 60 days from the date of billing, late payment surcharge at the rate of 1.25% per month shall be levied by the transmission licensee.”

14. **Substitution of Tariff Filing Form.** The tariff filing form (Hydro)-Form 17- titled “Calculation of Operation and Maintenance Expenses” of Appendix I Part II of the regulations shall be substituted by the form published along with these regulations.

Sd/-
(A.K. SACHAN)
SECRETARY

Note

The principal regulations were notified in the Gazette of India (Extraordinary) Part III, Section 4 on 29.3.2004.

CALCULATION OF OPERATION AND MAINTENANCE EXPENSES

CALCULATION OF OPERATION AND MAINTENANCE EXPENSES												
Name of the Company:												
Name of the Power station:												
												(Rs lakh)
						Average	Base	Tariff Period				
	1998-99	1999-2000	2000-01	2001-02	2002-03	1998-99 to 2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	2	3	4	5	6	7	8	9	10	11	12	13
CASE I: O&M data available for 1998-99 to 2002-03 (Base O&M on the basis of actual data)												
A) Total O&M Expenses												
B) Abnormal O&M expenses*												
- Additional security expenses												
- Siltation												
- Over staffing												
- Any Other (Specify)												
C) Calculation of Base O&M (A-B)												
						E	$X = E \times (1.04)^3$	$X \times (1.04)$	$X \times (1.04)^2$	$X \times (1.04)^3$	$X \times (1.04)^4$	$X \times (1.04)^5$
CASE II: Stations for which O&M data for 1998-99 to 2002-03 is not available												
Year of Commissioning												
Calculation of Base O&M**												
							Y	$Y \times (1.04)$	$X \times (1.04)^2$	$X \times (1.04)^3$	$X \times (1.04)^4$	$X \times (1.04)^5$
* Abnormal O&M expenses such as: - Security expenses on account of insurgency (other than normal security) - Due to abnormal siltation - There may be redeployment of staff from completed projects to those under construction. Yearwise details to be given.												
** Base O&M= (0.015 x Capital cost) escalated at the rate of 4 percent per annum to bring it to 2003-04 level For example if the capital cost of the plant commissioned in 2000-01 is Rs 1000 crore then the base for 2003-04 is computed as follows:- Base O&M for 2003-04= Rs. (0.015 x1000) x (1.04) ³ crore												

(PETITIONER)

Explanatory Memorandum

Some of the amended regulations as specified in Clause (2) of Regulation (1) are given effect from 1.4.2004, the date on which the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (the principal regulations) became applicable. The tariff, incentive, etc under the principal regulations has not been determined. Therefore, the amendments having bearing on tariff, incentive determination, etc are given effect from 1.4.2004.

Sd/-
(A.K. SACHAN)
SECRETARY