

CENTRAL ELECTRICITY REGULATORY COMMISSION
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(Tele No.24361051 FAX No.24360010)

New Delhi the 16th September, 2005

PUBLIC NOTICE

Subject: Draft amendments of the regulations on terms and conditions of tariff

In exercise of powers conferred under Electricity Act, 2003 (the Act), the Commission has made draft regulations to further amend the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004. The draft regulations are annexed to this notice and can also be downloaded.

2. Notice is hereby given under sub-section (3) of Section 178 of the Act read with Section 23 of the General Clauses Act, 1897, that objections/suggestions/comments on the draft regulations may be sent to the undersigned latest by 10.10.2005.

3. The objections/suggestions/comments received after that in the Commission's office shall not be considered by the Commission while finalising these regulations.

Sd/-

(A.K. Sachan)
Secretary

Central Electricity Regulatory Commission
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No. L-7/25(5)/2003-CERC

New Delhi the 16th September 2005

NOTIFICATION

No. L-7/25(5)/2003-CERC- In exercise of powers conferred under Section 178 of the Electricity Act, 2003 (36 of 2003), and all other powers enabling it in this behalf, and after previous publication, the Central Electricity Regulatory Commission hereby makes the following regulations to further 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) (Second Amendment) Regulations, 2005.

(2) These regulations shall be deemed to have come into force with effect from 1.4.2004.

2. **Insertion of Regulation 5A:** After Regulation 5 of the principal regulations, the following shall be inserted, namely:-

“5A. **Provisional tariff** : Provisional tariff or provisional billing of charges, wherever allowed by the Commission based on the application made by the generating company or the transmission licensee or by the Commission on its

motion or otherwise, shall be adjusted against the final tariff approved by the Commission.

Provided that where the provisional tariff charged exceeds the final tariff approved by the Commission under these regulations, the generating company or the transmission licensee, as the case may be, shall pay interest @ 6% per annum on the excess amount so charged, from the date of payment of such excess amount and up to the date of adjustment.

Provided further that where the provisional tariff charged is less than the final tariff approved by the Commission, the beneficiaries shall pay interest @ 6% per annum on the deficit amount from the date on which final tariff will be applicable up to the date of billing of such deficit amount.

3. **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 or any other authority having power to do so, for fixation of tariff for the period ending 31.3.2004 shall be considered as the debt-equity ratio for determination of tariff with effect from 1.4.2004.

Provided further that in case of the existing generating stations where additional capitalisation has been completed on or after 1.4.2004 and admitted by the Commission under Regulation 18, it shall be considered in the debt-equity ratio of 70:30.

Provided also that in case of the existing generating stations where additional capitalisation has been completed on or after 1.4.2004 and equity actually employed to finance the additional capitalisation is less than 30%,

actual debt and equity shall be considered for the purpose of 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 and equity in the ratio of 70:30 shall be considered:

Provided that where equity actually employed to finance the project is less than 30%, the actual debt and equity shall be considered for determination of tariff:

Provided further that the Commission may in appropriate cases consider equity higher than 30% for determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that deployment of equity higher 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 and equity in the ratio of 70:30 shall be considered for determination of tariff:

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

(4) The debt and equity amount arrived at in accordance with above 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.”

4. **Amendment of Regulation 21:** For Clause (i) of Regulation 21 of the principal regulations, the following shall be substituted, namely:-

“(i) **Interest on loan capital**

(a) Interest on loan capital shall be computed loan-wise on the loans arrived at in the manner indicated in Regulation 20.

(b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan in accordance with Regulation 20 minus cumulative repayment as admitted by the Commission or any other authority having power to do so, up to 31.3.2004. The repayment for the period 2004-09 shall be worked out on a normative basis.

(c) The generating company shall make every effort to re-finance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such re-financing shall be borne by the beneficiaries.

(d) The changes to the loan terms and conditions shall be reflected from the date of such re-financing and benefit passed on to the beneficiaries.

(e) In case of any dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment ordered by the Commission to the generating company during pendency of any dispute relating to re-financing of loan.

(f) In case any moratorium period is availed of by the generating company, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(g) The generating company shall not make any profit on account of re-financing of loan and interest on loan.

(h) The generating company may, at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest, or vice-versa, at its own cost and gains or losses as a result of such swapping shall accrue to the generating company:

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted, whether on floating or fixed rate of interest.“

5. **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 any bill (other than UI and VAR charges) is delayed by the beneficiary(ies) beyond a period of 60 days from the date of billing, a late payment surcharge at the rate of 1.25% per month shall be levied by the generating company. “

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

“36. **Debt-Equity Ratio.** (1) In case of the existing generating stations, debt-equity ratio considered by the Commission or any other authority having power to do so, for fixation of tariff for the period ending 31.3.2004, shall be considered as the debt-equity ratio for determination of tariff with effect from 1.4.2004.

Provided further that in case of the existing generating stations where additional capitalisation has been completed on or after 1.4.2004 and admitted by the Commission under Regulation 18, it shall be considered in the debt-equity ratio of 70:30.

Provided also that in case of the existing generating stations where additional capitalisation has been completed on or after 1.4.2004 and equity actually employed to finance the additional capitalisation is less than 30%, actual debt and equity shall be considered for the purpose of 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 and equity in the ratio of 70:30 shall be considered:

Provided that where equity actually employed to finance the project is less than 30%, the actual debt and equity shall be considered for determination of tariff:

Provided further that the Commission may in appropriate cases consider equity higher than 30% for determination of tariff, where the generating company is able to establish to the satisfaction of the Commission that deployment of equity higher 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 and equity in the ratio of 70:30 shall be considered for determination of tariff:

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

(4) The debt and equity amount arrived at in accordance with above 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.”

7. **Amendment of Regulation 38:** For Clause (i) of Regulation 38 of the principal regulations, the following shall be substituted, namely:-

“(i) **Interest on loan capital**

(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in Regulation 36.

(b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan in accordance with Regulation 36 minus cumulative repayment as admitted by the Commission or any other authority having power to do so, up to 31.3.2004. The repayment for the period 2004-09 shall be worked out on a normative basis.

(c) The generating company shall make every effort to re-finance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such re-financing shall be borne by the beneficiaries.

(d) The changes to the loan terms and conditions shall be reflected from the date of such re-financing and benefit passed on to the beneficiaries.

(e) In case of any dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment ordered by the Commission to the generating company during pendency of any dispute relating to re-financing of loan.

(f) In case any moratorium period is availed of by the generating company, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(g) The generating company shall not make any profit on account of re-financing of loan and interest on loan.

(h) The generating company may, at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest, or vice-versa, at its own cost, and gains or losses as a result of such swapping shall accrue to the generating company:

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted, whether on floating or fixed rate of interest.“

8. **Amendment of Regulation 39:** For clause (2) and (3) of regulation 39 of the principal regulations the following shall be substituted, namely:-

“(2) Rate of primary energy for all hydro electric power generating stations, except for pumped storage generating stations, shall be equal to the lowest variable charges of the central sector thermal power generating station of the concerned region for the previous year. The primary energy charge shall be computed based on the primary energy rate and saleable scheduled primary energy of the station:

Provided that in case the primary energy charge recoverable by applying the above primary energy rate exceeds the Annual fixed charges of a generating station, the primary energy rate for such generating station shall be calculated by the following formula:

$$\text{Primary energy rate} = \frac{\text{Annual Fixed Charge}}{\text{Saleable design energy}}$$

(3) Primary Energy Charge = Saleable Scheduled Primary Energy x Primary Energy Rate.

Secondary Energy Rate shall be equal to the primary Energy Rate.

Secondary Energy Charge = Saleable scheduled Secondary Energy x
Secondary Energy Rate.”

9. **Amendment of Regulations 40:** For clause (4) of Regulation 40 of the principal regulations, the following shall be substituted, namely:-

“(4) The total incentive payment calculated on annual basis shall be shared by the beneficiaries based on the saleable allocated capacity.”

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

“44. **Late Payment Surcharge:** In case the payment of any bill (other than UI and VAR charges) is delayed by the beneficiary(ies) beyond a period of 60 days from the date of billing, a late payment surcharge at the rate of 1.25% per month shall be levied by the generating company .”

11. **Amendment of Regulation 48:** For clause (iv) of Regulation 48 of the principal regulations, the following shall be substituted, namely:-

“(iv) The capacity charges shall be paid by the beneficiary(ies) including those outside the region to the generating company every month in accordance with the following formulas and in proportion to their respective shares in the concerned generating station:

ACC1 =AFC-(SPE1+DE 2nd to 12th months)* Primary Energy Rate

ACC2 =AFC-(SPE2+DE 3rd to 12th months)* Primary Energy Rate

ACC3 =AFC-(SPE3+DE 4th to 12th months)* Primary Energy Rate

ACC4 =AFC-(SPE4+DE 5th to 12th months)* Primary Energy Rate

- ACC5 =AFC-(SPE5+DE 6th to 12th months)* Primary Energy Rate
- ACC6 =AFC-(SPE6+DE 7th to 12th months)* Primary Energy Rate
- ACC7 =AFC-(SPE7+DE 8th to 12th months)* Primary Energy Rate
- ACC8 =AFC-(SPE8+DE 9th to 12th months)* Primary Energy Rate
- ACC9 =AFC-(SPE9+DE10th to 12th months)* Primary Energy Rate
- ACC10 =AFC-(SPE10+DE 11th to 12th months)* Primary Energy Rate
- ACC11 =AFC-(SPE11+DE 12th month)* Primary Energy Rate
- ACC12 =AFC-(SPE12)* Primary Energy Rate

Where,

AFC= Annual Fixed Charges

ACC1, ACC2, ACC3, ACC4, ACC5, ACC6, ACC7, ACC8, ACC9, ACC10, ACC11 and ACC12 are the amount of Annual Capacity Charge for the cumulative period up to the end of 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, and 12th month respectively.

SPE1, SPE2, SPE3.....SPE12 are the ex-bus saleable scheduled primary energy values up to 1st, 2nd, 3rd.....12th months of the year respectively.

$$CC1 = \frac{ACC1 \times DE1}{DE}$$

$$CC2 = \frac{ACC2 \times DE2}{DE}$$

$$CC3 = \frac{ACC3 \times DE3}{DE}$$

$$CC4 = \frac{ACC4 \times DE4}{DE}$$

$$CC5 = \frac{ACC5 \times DE5}{DE}$$

$$CC6 = \frac{ACC6 \times DE6}{DE}$$

$$CC7 = \frac{ACC7 \times DE7}{DE}$$

$$CC8 = \frac{ACC8 \times DE8}{DE}$$

$$CC9 = \frac{ACC9 \times DE9}{DE}$$

$$CC10 = \frac{ACC10 \times DE10}{DE}$$

$$CC11 = \frac{ACC11 \times DE11}{DE}$$

$$CC12 = \frac{ACC12 \times DE12}{DE}$$

Where,

CC1,CC2,CC3.....CC12 is the monthly capacity charge up to 1st,2nd, 3rd,.....12th month of the year respectively.

DE= Annual saleable Design Energy

DE1,DE2,DE3,.....DE12 are the ex-bus saleable design energy values up to 1st,2nd,3rd12th month of the year respectively..

Total capacity charges payable to the generator for the:

$$1^{\text{st}} \text{ month} = (CC1)$$

$$2^{\text{nd}} \text{ month} = (CC2-CC1)$$

$$3^{\text{rd}} \text{ month} = (CC3-CC2)$$

$$4^{\text{th}} \text{ month} = (CC4-CC3)$$

$$5^{\text{th}} \text{ month} = (CC5-CC4)$$

$$6^{\text{th}} \text{ month} = (CC6-CC5)$$

$$7^{\text{th}} \text{ month} = (CC7-CC6)$$

$$8^{\text{th}} \text{ month} = (CC8-CC7)$$

$$9^{\text{th}} \text{ month} = (CC9-CC8)$$

10th month = (CC10-CC9)

11th month = (CC11-CC10)

12th month = (CC12-CC11)

and, each beneficiary having firm allocation in capacity of the generating station shall pay for the:

1st month = [CC1XWB1]/100

2nd month = [CC2XWB2-CC1XWB1]/100

3rd month = [CC3XWB3-CC2XWB2]/100

4th month = [CC4XWB4-CC3XWB3]/100

5th month = [CC5XWB5-CC4XWB4]/100

6th month = [CC6XWB6-CC5XWB5]/100

7th month = [CC7XWB7-CC6XWB6]/100

8th month = [CC8XWB8-CC7XWB7]/100

9th month = [CC9XWB9-CC8XWB8]/100

10th month = [CC10XWB10-CC9XWB9]/100

11th month = [CC11XWB11-CC10XWB10]/100

12th month = [CC12XWB12-CC11XWB11]/100

Where,

And WB1, WB2, WB3, WB4, WB5, WB6, WB7, WB8, WB9, WB10, WB11, and WB12 are the weighted average of percentage saleable allocated capacity share of the beneficiary during the cumulative period up to 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th and 12th month respectively.”

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

“54. **Debt-Equity Ratio.** (1) In case of the existing projects, debt-equity ratio considered by the Commission or any other authority having power to do so, for fixation of tariff for the period ending 31.3.2004 shall be considered as the debt-equity ratio for determination of tariff with effect from 1.4.2004.

Provided further that in case of the existing projects where additional capitalisation has been completed on or after 1.4.2004 and admitted by the Commission under Regulation 18, it shall be considered in the debt-equity ratio of 70:30.

Provided also that in case of the existing projects where additional capitalisation has been completed on or after 1.4.2004 and equity actually employed to finance the additional capitalisation is less than 30%, actual debt and equity shall be considered for the purpose of determination of tariff.

(2) In case of the transmission systems 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 and equity in the ratio of 70:30 shall be considered:

Provided that where equity actually employed to finance the project is less than 30%, the actual debt and equity shall be considered for determination of tariff:

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

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

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

(4) The debt and equity amount arrived at in accordance with above 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.”

13. **Amendment of Regulation 56:** For Clause (i) of 56 of the principal regulations, the following shall be substituted, namely:-

“(i) **Interest on loan capital**

(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in Regulation 54.

(b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan in accordance with Regulation 54 minus cumulative repayment as admitted by the Commission or any other authority having power to do so, up to 31.3.2004. The repayment for the period 2004-09 shall be worked out on a normative basis.

(c) The transmission licensee shall make every effort to re-finance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such re-financing shall be borne by the beneficiaries.

(d) The changes to the loan terms and conditions shall be reflected from the date of such re-financing and benefit passed on to the beneficiaries.

(e) In case of any dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment ordered by the Commission to the transmission licensee during pendency of any dispute relating to re-financing of loan.

(f) In case any moratorium period is availed of by the transmission licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(g) The transmission licensee shall not make any profit on account of re-financing of loan and interest on loan.

(h) The transmission licensee may, at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest, or vice versa, at its own cost and gains or losses as a result of such swapping shall accrue to the transmission licensee:

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted, whether on floating or fixed rate of interest.“

14. **Amendment to Regulation 58:** For Regulation 58 of the principal regulations, the following shall be substituted, namely:

“**58. Sharing of charges for intra-regional assets:** In case of more than one long-term transmission customer of the regional transmission system, the

transmission charges leviable on each long-term transmission customer shall be computed in accordance with the following formula:

Transmission Charges for intra-regional system payable for a month by a long-term transmission customer of that transmission system

$$= \left(\sum_{i=1}^n \left(\frac{TC_i}{12} \right) - ARSC \right) \times \frac{CL}{SCL}$$

Where

TC_i = Annual Transmission Charges for the ith project in the region.

n = Number of projects in the region

ARSC = Adjustable part of the recovery of transmission charges for the month from Short-term transmission customers for the regional transmission system used for reduction in transmission charges payable by long-term transmission customers in accordance with the Central Electricity Regulatory Commission (Open Access in Inter-State Transmission) Regulations, 2004 as amended from time to time.

CL = Allotted Transmission Capacity to the long-term transmission customer

SCL = Sum of the Allotted Transmission Capacities to all the long-term transmission customers of the regional transmission system."

15. **Amendment to Regulation 59:** For Regulation 59 of the principal regulations the following shall be substituted, namely:

"59. Sharing of charges for inter-regional assets:

(A) 1.4.2004 to 31.3.2005 : The transmission charges for inter-regional assets, including HVDC system, after deducting the recovery from the short-term customers, shall be shared in the ratio of 50:50 by the long-term transmission customers of the regional transmission systems of two contiguous regions in accordance with the following formula:

Transmission Charges payable for a month by a long-term customer within the region for the inter-regional assets connected to that region

$$= 0.5x \left\{ \frac{TC_j}{12} - ARSC_j \right\} \times \frac{CL}{SCL}$$

Where

TC_j = Annual Transmission Charges for the particular inter-regional asset connected to the region,

ARSC_j = Adjustable part of the recovery of transmission charges for the month from short-term transmission customers for the particular inter-regional asset connected to the region used for reduction in transmission charges payable by long-term transmission customers in accordance with the Central Electricity Regulatory Commission (Open Access in Inter-State Transmission) Regulations, 2004 as amended from time to time,

CL = Allotted Transmission Capacity to the long-term transmission customer in the regional transmission system in which it is located,

SCL = Sum of the Allotted Transmission Capacities to all the long-term transmission customers of the regional transmission system in the regional transmission system in which it is located.

(B) **1.4.2005 and onwards**: The transmission charges of the inter-regional assets shall be shared as under, except specifically decided otherwise by the Commission:

(a) The monthly transmission charges for an inter-regional asset payable by a customer having allocation from the Central Generating Station located in the other region and/or having long-term contract for power in the other region shall be:

$$TL = (TSC/12) \times (CC/CIR)$$

Where

TSC = Annual Transmission Charges for the inter-regional asset,

CC = Capacity in MW of the inter-regional asset required for transferring allocated and/or contracted power,

CIR = Capacity of the inter-regional asset in MW.

(b) Out of the balance capacity of the inter-regional asset, Regional Load Despatch Centres may decide to keep certain capacity as a reserve margin. The capacity of the inter-regional link after accounting for allocation from Central Generating Stations, long-term contracts and reserve margin shall be made available for short-term open access. The short-term transmission customers shall pay transmission charges as per Central Electricity Regulatory Commission (Open access in inter-State Transmission) Regulations, 2004 as amended from time to time,

(c) The transmission charges for reliability support payable by long-term customers of the regional transmission system of the two regions connected by the inter-regional assets shall be as under:

$$T_r = 0.5 \times \{ (TSC/12) - \sum TL - ARSC \} \times (CL/SCL)$$

Where

T_r = Reliability support charges payable for the month for inter-regional asset by a long-term customer of regional transmission system connected to the inter-regional asset,

TSC = Annual transmission charges for the inter-regional asset,

$\sum TL$ = Total transmission charges payable for the month for use of the inter-regional asset for transfer of allocated power from Central Generating Station or power available consequent to a long-term agreement,

ARSC = Adjustable part of the revenue recovery for the month from short-term transmission customers, which is used for reduction in transmission charges payable by long-term transmission customers in accordance with Central Electricity Regulatory Commission (Open access in inter-State Transmission) Regulations, 2004 as amended from time to time,

CL = Allotted Transmission capacity to the long-term customer in the regional transmission system in which it is located, and

SCL = Sum of the Allotted Transmission Capacities of all long-term transmission customers of the regional transmission system in which it is located."

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

“62. **Late payment surcharge** : In case the payment of any bill is delayed by the beneficiary(ies) beyond a period of 60 days from the date of billing a late payment surcharge at the rate of 1.25% per month shall be levied by the transmission licensee.”

(A.K.Sachan)
Secretary