CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Coram:
Shri Gireesh B. Pradhan, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member

Date: 4.12.2015

In the matter of:

Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2015

Statement of Reasons

The Commission initiated the proposal for amendment of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (2014 Tariff Regulations) in order to give effect to the "Scheme for utilization of gas based power generation capacity" sanctioned by Government of India vide Ministry of Power O.M. No. 4/2/2015-Th.1 dated 27.3.2015 and also to remove ambiguity in certain provisions in order to ensure dispute-free implementation of the regulations.

2. The Commission in exercise of power conferred under Section 178 of the Electricity Act, 2003 (the Act), issued the draft Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2015 (draft regulations).The public notice was issued as on 4.6.2012 under sub-section (3) of Section 178 of the Act inviting comments/suggestions/objections from the stakeholders and members of public on the draft regulations by 19.6.2015. The public hearing was held on 19.8.2015.

3. Written comments were received on the draft regulations from the following:

(a) Ratnagiri Gas and Power (P) Limited
(b) Power Grid Corporation of India Limited
(c) NHPC Limited

(d) NTPC Limited

(e) THDC India Limited

(f) North Eastern Electric Power Corporation Limited

(g) United Residents of Delhi

4. The following stakeholders participated in the public hearing:

(a) NHDC Limited

(b) Power Grid Corporation Limited

(c) A K Dutta, Consumer

(d) NHPC Ltd

(e) THDC India Ltd.

5. The comments/suggestions to the draft regulations have been considered in the succeeding paragraphs.

6. **Amendment to Clauses 7 and 8 of Regulation 7 of the2014 Tariff Regulations:**

6.1 Proviso (i) to Clause 7 of Regulation 7 of the 2014 Tariff Regulations deals with grant of 90% of the annual fixed charges of the transmission system or element thereof for the purpose of inclusion in the PoC Charges in accordance with Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010. Clause 6 of Regulation 7 provides for determination of tariff of the generating station or transmission system in accordance with the Regulations after considering the suggestions and objections received and after hearing the parties. However, there is no provision for adjustment of the difference between the tariff determined under the proviso (i) to clause 7 and tariff determined under Clause 6. Similarly, proviso (i) under Clause 8 of Regulation 7 permits the generating companies or transmission licensees to continue to bill the beneficiaries or transmission customers at the same tariff in respect of the existing projects till the tariff is determined in accordance with the 2014 Tariff Regulations. There is no provision for adjustment of the difference between the tariff billed as per the 2009 Tariff Regulations and tariff

determined under 2014 Tariff Regulations. To fill in these gaps in the Regulations, the following were proposed:

> "(i a) The difference between the tariff determined in accordance with proviso (i) above and the tariff determined in accordance with Regulation 6 of these regulations shall be recovered or refunded by the generating company or transmission licensee, as the case may be, with simple interest at the rate equal to the bank rate as on 1st April of the respective year, in six equal monthly installments."

6.2 **Stakeholders' Comments/Suggestions:**

NTPC Limited has submitted that the proposed amendment should be made applicable on prospective basis. Power Grid Corporation of India Limited (PGCIL) has submitted that the provision for six equal monthly installments may be done away with as the impact of arrears to 80 Designated ISTS Customers (DIC) under PoC mechanism may not be significant. NEEPCO has suggested that late payment surcharge may be applied if installment is due after 60 days of billing cycle. United Residents of Delhi has submitted that any shortfall should be to the account of the Utilities, and should not be passed on to the consumers as there will be uncertainty in tariff. NHPC has Limited has submitted that the provision of 90% tariff as considered for transmission system should be extended in case of generating stations.

6.3 **Analysis and Decision:**

As regards the contention of NTPC it is clarified that the Regulations will operate prospectively except where specifically provided for retrospective operation. As regards the submission of PGCIL, we agree that there will not be wide gap between the PoC tariff and the final tariff and therefore, the period of recovery for the differences in tariff between the two needs to be reduced. Accordingly, it has been decided for recovery or refund of the difference in tariff in three equal monthly installments. As regards the contention of NEEPCO for levy of late payment surcharge, it is clarified that Regulation 45 of the 2014 Tariff Regulation deals with late payment surcharge and will be applicable in all cases of late recovery beyond the period of 60 days. Therefore, there is no need for providing for late payment surcharge under Regulation 7 of 2014 Tariff Regulations. With regard to the submission of United Residents of Delhi it is clarified

that the provision for refund or recovery of difference in tariff along with interest balances the interest of the generator/transmission licensees and the distribution companies. As regards the suggestions of NHPC to provide for 90% of the fixed charges as provisional/interim tariff, it is clarified that the generating companies and transmission licensees are required under the regulations to approach six months before their commercial operation for fixation of tariff on the basis of projected capital expenditure. If the actual commercial operation takes place before the tariff is determined by the Commission, the concerned generating company can approach the Commission for grant of an interim tariff so that cash flow is maintained. However, in case of transmission assets, a specific provision has been provided as the charges are included in the Yearly Transmission Charges on quarterly basis. In view of the above discussion, proposed amendment has been retained with modification of the words “six equal monthly installments” with the words “three equal monthly installments.”

7. Amendment to Regulation 8 of the 2014 Tariff Regulations:

7.1 Clause (6) of Regulation 8 of the 2014 Tariff Regulations provides for annual reconciliation of energy charges and sharing of gains in respect of the variation of Station Heat Rate, Auxiliary Energy Consumptions etc. In case of hydro generating stations, scheduled generation may vary i.e. it may be more or less than saleable design energy depending upon the flow of water. Since the energy charges in case of hydro generating stations are calculated with reference to saleable design energy, the Commission proposed the following amendment to the said Regulation:

> “Provided that in case of hydro generating station, if the scheduled generation is more than saleable design energy, then the saleable design energy shall be considered in place of scheduled generation.”

7.2 **Stakeholders' Comments/Suggestions:**

United Residents of Delhi has objected to the proposed amendment on the ground that if design energy is considered where schedule energy is higher, the net gain will be less. NEEPCO has submitted that for the purpose of assessing the impact of the hydro generating stations in calculating the net gain and sharing thereof need further guidance/clarification as Regulation 8 governs controllable parameters which

include station heat rate, secondary fuel consumption and auxiliary energy consumption. If the schedule energy exceeds the saleable designed energy in case of hydro generating station, the gain is already shared with beneficiaries as there is a capping for ECR at 90 paisa/kWh. To avoid the contradiction between Regulation 31 (7) and the formula given under Regulation 8(6), the provision for capping of ECR at 90 paise/kWh as per Regulation 31 (7) needs to be abolished. NHPC and THDC have also submitted the comments on these amendments on similar lines.

7.3 **Analysis and Decision:**

7.3.1 On the basis of the comments received from United Residents of Delhi, THDC, NEEPCO and NHPC, it has come out that the proposed amendment needs to be re-looked into. Accordingly, to address the issue, the following two scenarios have been considered:

(a) Case-I: When saleable scheduled generation is less than the saleable design energy:

THDC by way of the following calculation has pointed out that in case, saleable scheduled generation is less than the saleable design energy, the petitioner is not able to recover its energy charges as per the existing provisions of 2014 Tariff Regulations.

	Case-1		
Sl. No.	**Description**	**Calculation as per normative Aux. Consumption**	**Calculation as per Actual Aux. Consumption**
1	Auxiliary consumption (%)	1.2	0.7
2	Design Energy (MUs)	2797	2797
3	ECR for the energy in excess of ex-bus Saleable Design Energy (Rs.)	0.90	0.90
4	Ex-bus Design Energy (MUs)	2763	2777
5	Ex-bus Saleable Design Energy (MUs)	2432	2444
6	Saleable Scheduled Energy (Assumed)(Mus)	2300	2300
7	AFC (Assumed) (Million Rs.)	14000	14000
8	Energy charge (50% pf AFC) (Million Rs.)	7000	7000
9	Energy Charge Rate (Rs./kWh)	2.878	2.864
10	Energy Charge Recoverable as per CERC Tariff Regulations (Million Rs.)	6619	6587

11	Total Gain for Auxiliary Consumption (as per CERC Regulations) (million Rs.)	32
12	Gain to be shared with beneficiaries (40% of Sl. No. 11) (million Rs.)	12.88

It may be observed that in the above scenario, 2014 Tariff Regulations only allows recovery of Rs.6619 million rupees as against the energy charges of Rs.7000 million rupees i.e. the Regulation does not allow even the recovery of energy charges which are 50% of annual fixed charges. On the contrary, the Regulation 8 (6) and the proposed amendment require sharing of net gain which does not exist. Further, in case the generator files a petition for recovery of lost energy charges and proves that the energy shortfall is due to reasons not attributable to the generator, the sharing of gains is not possible since the Regulations allow recovery only up to the energy charges, and not beyond that. Therefore, Commission is of the view that in the scenario covered under case-I, sharing of gain is not applicable.

(b) Case-II: When saleable scheduled generation is more than the saleable design energy:

The saleable scheduled generation can be more than the saleable design energy due to some reasons in case of hydro stations, namely, (i) when the water flow is more than design year flow; (ii) when the actual Auxiliary Energy Consumption is less than the Normative Auxiliary Energy Consumption.

The benefit of water flow being more than design year flow as well as lesser Auxiliary Energy Consumption accrues in the form of more generation which is charged at the normative rate of 90 paisa/unit from the beneficiaries. Regulation 8 requires sharing of net gain which accrues to the generator due to Auxiliary Energy Consumption being less than the normative Auxiliary Energy Consumption. As such, the net gain on account of increased generation due to lesser AEC, can be calculated as follows:

(i) When saleable scheduled generation is beyond saleable design energy on the basis of normative auxiliary consumption and less than or equal to saleable design energy on the basis of actual auxiliary consumption:

Net gain (Million Rupees) =

(Saleable Scheduled generation in MUs- Saleable Design energy on the basis of normative auxiliary consumption in MUs) x 0.90

(ii) When saleable scheduled generation is beyond saleable design energy on the basis of actual auxiliary consumption:

Net gain (Million Rupees) =
{Saleable Scheduled generation in MUs- [(Saleable Scheduled Generation in MUs x (100-normative AEC in %)/(100- actual AEC in %)]}x 0.90

The above formulations allow the generators to keep the benefits of increased water flow in comparison to design year but share the net gain which accrues to the generator due to lesser auxiliary energy consumption.

7.4 In view of the above deliberations, Clause 6 of Regulation 8 of 2014 Tariff Regulations has been modified as under:

"(1) In clause (6) of Regulation 8 of Principal Regulations, the second sentence has been substituted as under:

"The financial gains computed as per the following formulae in case of generating station other than hydro generating stations on account of operational parameters as shown in Clause 2 (a) (i) to (iii) of this Regulation shall be shared in the ratio of 60:40 between the generating stations and beneficiaries."

(2) The following proviso has been added after the formula given under Clause (6) of Regulation 8 of the Principal Regulations:

Provided that in case of hydro generating stations, the net gain on account of Actual Auxiliary Energy Consumption being less than the Normative Auxiliary Energy Consumption, shall be computed as per following formulae provided the saleable scheduled generation is more than the saleable design energy and shall be shared in the ratio of 60:40 between generating station and beneficiaries:

(i) When saleable scheduled generation is more than saleable design energy on the basis of normative auxiliary consumption and is less than or equal to saleable design energy on the basis of actual auxiliary consumption:

Net gain (Million Rupees)=

(Saleable Scheduled generation in MUs - Saleable Design energy on the basis of normative auxiliary consumption in MUs) x 0.90

(ii) When saleable scheduled generation is more than saleable design energy on the basis of actual auxiliary consumption:

Net gain (Million Rupees) =
{Saleable Scheduled generation in MUs - [(Saleable Scheduled Generation in MUs x (100-normative AEC in %)/(100- actual AEC in %)]}x 0.90"

8. Amendment to Regulation 9 of the Principal Regulations:

8.1 Sub-clause (b) of Clause (2) of Regulation 9 of the Principal Regulations provides for capitalization of IDC and financing charges; however, gains or losses on account of FERV have not been specified explicitly as part of capital cost. Since, FERV is an important component of capital cost, the Commission proposed to insert a new sub-clause as under:

"(bi) Any gain or loss on account of foreignexchange risk variation pertaining to the loan amount availed during the construction period shall form part of the capital cost."

8.2 **Comments/Suggestions**

United Residents of Delhi has objected to the proposed amendment on the ground that the term FERV is required to be first defined in the draft Regulations. NEEPCO has agreed with the proposed amendment.

8.3 **Analysis and Decision**

Gain or loss on account of FERV pertaining to the normative loan is considered as part of the capital cost which was inadvertently omitted in 2014 Tariff Regulations. For the purpose of clarity, the proposed provision has been sought to beintroduced through the amendment. Accordingly, the said provision has been retained in the final Amendment Regulations.

9. Amendment to Regulation 12 of the Principal Regulations:

9.1 Regulation 12 deals with the controllable and uncontrollable factors leading to cost escalation impacting the contract price, IDC and IEDC of the generation or inter-State transmission projects. Second Proviso under Regulation 12(2)(ii) provides as under:

> "Provided further that if the generating station is not commissioned on the SCOD of the associated transmission system, the generating company shall bear the IDC or transmission charges if the transmission system is declared under commercial operation by the Commission in accordance with second proviso of clause 3 of Regulation 4 of these regulations till the generating station is commissioned"

In the above proviso, IEDC is missing even though the heading provides for impact of controllable and uncontrollable factors on IEDC. It was therefore proposed to insert the word 'IEDC' in the proviso after the word IDC.

9.2 Comments/Suggestions

PGCIL has suggested that the existing Indemnification Agreement or Implementation Agreement (IA) have been signed between a generating company and a transmission licensee on mutually agreed terms and conditions with limited liability of IDC only. Hence the above provision may be made applicable in case of new projects where the same can be incorporated in the Implementation Agreement.

9.3 Analysis and Decision

It is clarified that as per the judgement of Supreme Court of India in the matter of PTC India Limited Vs. CERC {(2010)4SCC603}, the regulations will override the contractual relationship between the parties. The relevant extract of the judgement is extracted as under:

> "Further, it is important to bear in mind that making of a regulation under Section 178 became necessary because a regulation made under Section 178 has the effect of interfering and overriding the existing contractual relationship between the regulated entities. A regulation under Section 178 is in the nature of a subordinate Legislation. Such subordinate Legislation can even override the existing contracts including Power Purchase Agreements which have got to be aligned with the regulations under Section 178 …….".

Therefore, where the parties have made provisions in the Implementation Agreement which are at variance with the regulations, they will be required to align the Agreements with the regulations. In the view of the Commission, any reasonable expenditure incurred by a transmission licensee in the form of IDC and IEDC should be reimbursed by the generating company if the generating company is not commissioned matching with the transmission systems. Accordingly, the proposed amendment has been retained.

10. Addition to the Regulation 23 of the Principal Regulations:

10.1 Government of India, Ministry of Power has sanctioned the "Scheme for utilization of gas based power generation capacity" vide O.M. No. 4/2/2015-Th. I dated 27th March, 2015. The said scheme provides for capping of fixed cost to be recovered by the stranded developers. In respect of the generating stations regulated by the Commission which are covered under the scheme, the tariff shall have to be determined in deviation of some of the provisions of the 2014 Tariff Regulations. The Commission proposed the following addition of the following regulation:

> "**23A. Tariff Determination of Gas based generating stations**: The tariff of gas based generating stations covered under the "Scheme for Utilization of Gas based power generation capacity" issued by the Government of India, Ministry of Power vide Office Memorandum No. 4/2/2015-Th.1 dated 27.3.2015 shall be determined in due consideration of the provisions of that scheme in deviation of the relevant regulations".

10.2 **Stakeholders' Comments/Suggestions:**

NTPC Limited has submitted that as the scope of the scheme envisages supply of imported spot RLNF (e-bid RLNG) to the Stranded gas based plants only upto the target PLF, tariff determination of capacity available beyond target PLF would continue to be as per relevant regulations of tariff determination of gas based generating stations. Similarly, in case of Plants receiving domestic gas, the scheme envisages supply of e-bid RLNG for the gap between the base PLF and target PLF. Accordingly, tariff determination of capacity other than the difference between the base PLF and the target PLF would continue to be as per relevant regulations of tariff determination of gas based generating stations. Further, as separate accounts are to be maintained for the e-

bid RLNG, RLDCs would have to make suitable provisions for DC declaration on e-bid RLNG & its scheduling. Ratnagiri Gas and Power (Private) Ltd (RGPL) has submitted that the tariff beyond the incremental energy to be supplied based on R-NLG scheme should remain as per 2014 Tariff Regulations. RGPL has further submitted that depreciation, interest on loan and working capital not recovered due to implementation of the scheme should be recovered during subsequent period.

10. 3 **Analysis and Decision:**

The scheme envisages supply of imported spot RLNG "e-bid RLNG" to the stranded gas based plants as well as the plants receiving domestic gas, upto the target PLF selected through a reverse e-bidding process. The scheme further provides support from PSDF and capping of fixed cost to meet only debt service obligations. Since the manner of determination of tariff in respect of the gas based generating stations under the scheme is at variance with the norms specified in the 2014 Tariff Regulations, the Commission proposed an enabling provision in the amendment regulations to determine tariff of these stations in deviation of the norms. The suggestions of NTPC Ltd and RGPL will be considered at the time of determination of tariff keeping in view the provisions of the scheme and provisions of the regulations.

11. Amendment to Regulation 25 regarding "Tax on Return on Equity"

11.1 In clause (1) of Regulation 25, it is mentioned "the actual tax income on other income stream", though it was intended as "the actual income tax on other income stream". To rectify the inadvertent error, the following amendment was proposed:

> "The actual income tax on other business streams including deferred tax (i.e. income of non-generation or non-transmission business, as the case may be) shall not be considered for the calculation of effective tax rate."

11.2 No comments have been received on the above proposed amendment.

11.3 The proposed regulation has been decided with slight modification to bring about clarity. The final provision is extracted as under:

> "The actual tax on income from other business streams including deferred tax liability (other than business of generation or transmission, as the case may be) shall not be considered for the calculation of effective tax rate."

12. Amendment Regulation 27 pertaining to "Depreciation":

12.1 The Commission has included the provisions for tariff determination of the communication system which form part of the transmission system. The infrastructure of the Communication system includes the IT equipment and software. However, the salvage value for IT equipment and software were not specified in the depreciation clause. In line with the CERC (Fees and Charges of Regional Load Dispatch Centre and other related matters) Regulations, 2015 where the salvage value of IT equipment and software has been considered as Nil, the Commission proposed addition of a proviso as under:

> "Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable."

12.2 Stakeholders' Comments/Suggestions

PGCIL has suggested that the proposed proviso does not provide any category for SCADA, WAMS, Fiber Optic Communication System, Remote Terminal Unit, Private Automatic Branch Exchange and Ratio Communication System, which are used for managing inter-state transmission of electricity. PGCIL has further proposed that deprecation rate of IT equipment Hardware may be considered as 15% and for software it may be considered as 33.34% as software life is not more than three years. PGCIL has also suggested that Fiber Optic can have Salvage Value but the some equipments like ADSS, WRAPP Type, Approach Cable associated with Fiber Optic would not have any salvage value.

12.3 Analysis and Decision

Communication equipment like the SCADA, WAMS, RTUs etc. are considered as IT equipment. Accordingly, salvage value of these equipments has been determined by the applicable salvage value for IT equipment. As regards the suggestion to consider the salvage value of equipments associated with fiber optic as zero, it is clarified that

the cost of the equipments which are part of fiber optic should only be considered for zero salvage value. However, the identifiable assets such as ADSS, WRAPP Type, Approach Cable associated with Fiber shall not be considered for zero salvage value. Accordingly, the proposed amendment has been retained.

13. Amendment to Regulation 29 regarding "Operation and Maintenance Expenses":

In clause (b) of Regulation 29(1) and in the table thereunder, the unit of Durgapur TPS has been mentioned as (Unit 1) whereas it should be Unit 3. This textual correction has been made by replacing the words “Durgapur TPS (Unit-1)” by the words “Durgapur TPS (Unit-3)”.

14. Amendment to Regulation 49 regarding "Deferred Tax liability”:

14.1 In order to provide clarity with regard to the deferred tax liability of the generating companies and transmission licensees during the tariff period 2014-19, the Commission proposed to substitute the Regulation 49 of the 2014 Tariff Regulations as under:

> “49. Deferred tax liabilities for the period upto 31st March, 2009 whenever they materialize shall be recoverable directly by the generating companies or transmission licensees from the beneficiaries or long term customers/DICs, as the case may be. Deferred tax liabilities for the periods from 1.4.2009 to 31.3.2014 and from 1.4.2014 to 31.3.2019 shall not be recoverable from the beneficiaries of the long term customers/DICs as the case may be”

14.2 **Comments and Suggestions**

PGCIL has submitted that the recovery of income tax in various tariff regulations has been based on the basic concept of the tariff policy that actual tax paid on generation/transmission income stream shall be recoverable. During the period 2014-19, the Commission has allowed the pre-tax regime to continue but to remove the anomaly in billing of income tax to the beneficiaries, the regulations provided the concept of effective tax rate in place of applicable tax rate. PGCIL has further submitted that the effective tax means the actual tax paid by the utilities in any year of the Tariff Block which automatically captures the benefits of section 80IA and MAT credit to be passed on to the beneficiaries as well as Deferred Tax materialized for this block period.

PGCIL has suggested that while making amendment for non-recovery of deferred tax liability for the block period 2014-19, it may be clearly stated that (a) while calculating the effective tax rate for the purpose of grossing up of ROE, no adjustment shall be made in respect of the deferred tax liability materialized for the block period 2014-19 and (b) it may be clarified that deferred tax liability materialized for the block period 2009-14 shall be reduced from the actual tax paid for working out the effective tax rate in respect of the companies paying normal income tax during 2009-14. However, no adjustment shall be made for the MAT paying companies in respect of deferred tax materialized for the tariff block 2009-14. This will remove the disparity between the MAT paying companies and normal taxpaying companies during the tariff block 2009-14.

14.3 **Analysis and Decision**

It is clarified that as in case of the 2009 Tariff Regulations, there is no provision in 2014 Tariff Regulations to allow recovery of the deferred tax liability in tariff. The generating companies and transmission licensees are liable to disburse the return on equity by grossing up the base rate of return with the effective tax rate during the tariff period 2014-19. For the purpose of clarity, the amendment was proposed to the effect that deferred tax liability for the period 2014-19 shall not be recoverable from the beneficiaries and Long Term Transmission Customers. The Commission is of the view that further clarification as regards the deferred tax liability materializing during 2014-19 period as sought by PGCIL is not warranted. Accordingly, Regulation 49 as proposed in the draft amendment regulation has been retained.

Additional Suggestions

15. PGCIL has made additional submission with regard to review of O&M norms, O&M expenses for HVDC bipole line, Auxiliary Energy consumption of the Substation. These suggestions fall beyond the scope of the present amendment and therefore have not been considered.

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(Dr. M.K. Iyer)	**(A. S. Bakshi)**	**(A.K. Singhal)**	**(Gireesh B. Pradhan)**
Member	**Member**	**Member**	**Chairperson**