

Anup Kumar Rampal  
F 26/ 114, Sector 7, Rohini,  
Delhi – 110 085

Ref: CERC/ /2019/ 001

January 24, 2019

**Secretary,  
Central Electricity Regulatory Commission (CERC),  
3rd Floor, Chanderlok Building,  
36, Janpath New Delhi-110001**

[tariff.regulation@cercind.gov.in](mailto:tariff.regulation@cercind.gov.in)

Sub: Draft Central Electricity Regulatory Commission (Terms and Conditions of  
Tariff) Regulations, 2019 for the tariff period from 1.4.2019 to 31.3.2024”

Ref: Public Notice vide CERC No. L-1/236/2018/CERC dated: 14<sup>th</sup> December, 2018

Dear Sirs

1. The person who has filed these comments/ suggestions/ objections is an Indian Citizen – a resident of Delhi.
2. The Draft Tariff Regulation has been got analysed from a team of REALIDEA Consultants and reviewed by the undersigned.
3. The comments have been grouped under the following Parts:

Part I:	Need for New and Separate Regulation;
Part II	Need for new Provisions in this Regulation
Part III:	Definitions
Part IV:	Financial and Economic Parameters
Part V:	Miscellaneous Aspects

The changes are generally shown in Track Change Mode.

4. As required, two sets (complete together with the covering letter) type-written are submitted (in hard copy) and soft copy is also e-mailed at the address – [tariff.regulation@cercind.gov.in](mailto:tariff.regulation@cercind.gov.in)
5. Hon’ble Commission may kindly consider these suggestions while making the final Tariff Regulation, 2019.

Thanking you,

Yours faithfully,

(Anup Kumar Rampal)

### Index

S No	Topic/ Matter	Page
<b>Part – I : Need for New/ Separate Regulations</b>		
A.	Depreciation Rates applicable to entire Electricity Sector	3
<b>Part –II : Need for New Provisions in this Regulations</b>		
B.	‘Swapping the Coal Source(s); Generation Resource(s)’	5
C.	‘RLDC Fee and Charges as per s/s 28 (4) of the Act	5
D.	‘Charges for Use of ISTS/ Transmission Tariff’	6
E.	‘Scheduling Below Technical Limit’	8
<b>Part – III : Definitions</b>		
F.	Date of Commercial Operation	9
G.	Date of Commercial Operation’ of Long term Access	10
H.	Economic Life and Fair (Useful) Life	11
I.	Fuel Supply Agreement’ (FSA)	12
J.	Force Majeure Events – Operation Period	12
K.	‘GCV as received’	15
L.	Plant Load Factor’ or ‘(PLF)	15
<b>Part – IV : Financial and Economic Parameters</b>		
M.	‘Cost of Capital’ and ‘Rate of Return on Equity’	17
N.	Depreciation	18
O.	Interest on Loan Capital	21
P.	R&M Due to Change in Law (Like new Environment Norms)	25
Q.	‘Interim Arrangements made to achieve early Commercial Operation’	27
R.	Capital Structure – Post Fair Life	28
<b>Part – V : Miscellaneous</b>		
S.	Scope and extent of application	30
T.	Consequences for Mismatch of Date(s) of Commercial Operation of interdependent Assets	32
U.	Consequences of Failure to Supply Coal by the Coal Supplier	35
V.	Coal GCV concerning	37
W.	‘Additional Capitalisation on account of Renovation and Modernisation’	39
X.	IDC Anomaly for Low Equity Base Assets’	41
Y.	Anomaly Hydro Tariff – Special Case – First Year of Operation’	41
Z.	Infirm Power	42
AA.	Terms of Payment/ Payment Security Mechanism	44

## Part I: A. Depreciation Rates applicable to entire Country

### Statutory Provisions

1. **Income Tax Act:** it may be deduced that Depreciation is recovery of Capital from the business (Depreciation is not a part of Taxable Income as also it is not an 'Expense' as may be seen from any Balance sheet). This is reflected in Balance Sheets under the 'Head' named "Internal Accruals" along with "Retained Profits". Corpus of "Internal Accruals" is available for repayment of loans or investment in new Business
2. **Electricity Act:** the various Tariff Regulations under this Act consider Depreciation as an "expense" and also recognise that Depreciation is used for the repayment of Loan, as it remains in the hands of Owner..

3. **Extract from Schedule II of the Companies Act:**

**Schedule II**

(See section 123)

**USEFUL LIVES TO COMPUTE DEPRECIATION**

**PART 'A'**

-----

-----

**PART 'B'**

4. The useful life or residual value of any specific asset, as notified for accounting purposes by a Regulatory Authority constituted under an Act of Parliament or by the Central Government shall be applied in calculating the depreciation to be provided for such asset irrespective of the requirements of this Schedule.

-----

-----

4. The Depreciation norms for 'Recovery of Capital' can be different from the norms as 'Expense' for determination of Tariff in this Regulation.
5. The Companies Act empowers Hon'ble Central Commission to determine and notify the norms for depreciation that shall be applicable to Electricity Sector. Therefore, Hon'ble Central Commission may kindly consider to 'make and notify' a separate Regulation by drawing powers from the Companies Act (cited above) that shall be applicable for all assets.
6. The suggestion is supported by the following arguments:

- (a) Now, the Electricity Act has provision for co-existence of free Market (competitive) as well as Regulated Market.
- (b) Assets of Free Market merit parity with other Sectors as far as the rates of Depreciation are concerned.
- (c) Higher Depreciation Rate is a fiscal incentive
  - Higher depreciation rate postpones the Tax Liability – to mitigate price/ profit risk(s);
  - Higher depreciation rate to attract investment in desired target Assets (Renewable Sources is an example);
  - Diversified Business mitigate its Segments' profit risk(s);
- (d) There is no law that the Asset after outliving its useful life is to be replaced – Owner has a legal right to divert its fund to other Asset/ Sector; So, any argument is void that suggests depreciation will create funds for redeployment in the same Industry or Sector;
- (e) In the free market, the owner has a right to choose out of (i) Straight Line method and (ii) Written Down Value Method – and this choice merits extension to Electricity Sector also;
- (f) In the free market, there is no ceiling to the Written Down Value (WDV) (proposed 5% in this Draft); This merits extension to Electricity Sector.
- (g) In the free market, Audited Capital Cost (may be inefficient for reasons attributable to the Owner) qualifies as 'Rate Base' for depreciation. Low Profit/ Low Tax pays for the cost of inefficient Capital Cost. But, this Draft allows only Prudent Cost as 'Rate Base' for depreciation.
- (h) In the free market, Foreign Exchange Rate Variation and Grants have different treatment than in the present Draft Regulations.

**Conclusion: (1) A new and Separate Regulation merits notification by drawing powers from the Companies Act/ Sec 61 of the Electricity Act. (2) Adopt Norms at Parity with other Sectors. (3) Assess the Tax Liability based on these norms under this Regulation.**

## Part II: B. Swapping the Coal Source(s); Generation Resource(s)

1. The Government of India notified the UDAY Scheme which encouraged 'swap' to gain the efficiency and reduction of Prices by:
  - (a) Swap coal source (mine) to save transport expenses
  - (b) The load centre Stations may divert their coal to pit-head stations (or stations near to the coal mine) and get electricity generated;
  - (c) Coal may be diverted from in-efficient Stations to efficient Stations

The objective in each case is to save (Country/ Society Benefit)

### Comments/ Observations/ Suggestions/ Views:

2. The Commission is aware of the UDAY Scheme;
3. UDAY Scheme is a Law;
4. This Tariff Regulation has to have provisions to enable "Swapping"
5. The purpose is only to draw the kind attention of the Commission;
6. **Conclusion: Make suitable Provisions to encourage "Swapping".**

## Part II: C. 'RLDC Fee and Charges (as per sub-sec 28 (4) of the Act'

Provisions of the Electricity Act 2003 are:

**"Sub-sec (4) of section 28:** The Regional Load Despatch Centre may levy and collect such fee and charges from the generating companies or licensees engaged in inter-State transmission of electricity as may be specified by the Central Commission."

**Section 79. (Functions of Central Commission):** --- (1) The Central Commission shall discharge the following functions, namely:-

-----

-----

**(g) to levy fees for the purposes of this Act;**

-----

-----

### Comments/ Observations/ Suggestions/ Views:

1. The Regional Load Despatch Centre Commission is empowered by s/s 28 (4) to levy such fee as may be specified by the Commission but determination is to precede the specification and empowerment to determine is given by section 62.
2. This Fee is to become a part of the generation or Transmission Tariff and finally percolate down to the Consumer Tariff. Hence, it is lawful that the Methodology for determination of this Fee may also be considered for inclusion within this Tariff Regulation. May be, a separate chapter is included in this Regulation.
3. All the Principles of this Draft may be used for determination of the Fee to be levied by RLDC except for “the Rate of Return on Equity”.
4. For “the Rate of Return on Equity”, this investment is mandatory, required by the IEGC for efficient operation of the grid. This investment is not exposed to any kind of Risk. Therefore, the Rate of Return (Net of Tax) does not merit to be applied. It may be recalled that the Rate of Return (Net of Tax) was introduced in the Year 1991 for attracting the (optional) Equity.
5. The Rate of Return can be bench-marked with RBI Repo Rate or Reverse Repo Rate (The Rate Charged/ Paid by RBI to Banks i.e it is inter-Bank Rate and can be taken as cost of money with no Risk). It can be 3% plus RBI Repo Rate as on 1<sup>st</sup> of April of the Financial Year for which the Fee is leviable.
6. For complying with the sub-section 28 (4), the fee may be made payable on last day of the Calendar month – Interstate Generators and Transmission Licensees may pay and recover the same amount together with the Bill from the concerned Beneficiaries. The Short-Term Open Access Users may be charges together with the ISTS Charges and Generator Charges respectively.
7. **Conclusion: (1) To make the determination of Fee to be levied by RLDC, a part of this Regulation and (2) Allow Rate of Return (gross of Tax).**

## **Part I: D. ‘Charges for Use of ISTS/ Transmission Tariff’**

Relevant Provisions of the Electricity Act 2003 are:

### **Section 40. (Duties of transmission licensees):**

It shall be the duty of a transmission licensee -

- (a) to build, maintain and operate ----- inter-State transmission system -----;
- (b) to comply with the directions -----;

(c) to provide non-discriminatory open access to its transmission system for use by-

(i) any licensee or generating company on payment of the transmission charges; or

(ii) any consumer as and when such open access is provided by the State Commission under sub-section (2) of section 42, on payment of the transmission charges and a surcharge thereon, as may be specified by the State Commission:

-----

-----

**Section 62. (Determination of tariff): --- (1) The Appropriate Commission shall determine the tariff in accordance with the provisions of this Act for –**

(a) -----

**(b) transmission of electricity;**

-----

-----

(5) The Commission may require a licensee or a generating company to comply with such procedures as may be specified for calculating the expected revenues from the tariff and charges which he or it is permitted to recover.

(6) If any licensee or a generating company recovers a price or charge exceeding the tariff determined under this section, the excess amount shall be recoverable by the person who has paid such price or charge along with interest equivalent to the bank rate without prejudice to any other liability incurred by the licensee.

**Section 79. (Functions of Central Commission): --- (1) The Central Commission shall discharge the following functions, namely:-**

-----

-----

**(d) to determine tariff for inter-State transmission of electricity;**

-----

-----

### **Comments/ Observations/ Suggestions/ Views:**

1. Section 40 provides that “non-discriminatory open access to its transmission system” for use by any licensee or generating company or Consumer u/s 42 is to be given on payment of the transmission charges.

**The transmission charges are the Transmission Tariff.**

2. The Central Commission is given a function to determine tariff for inter-State transmission of electricity empowered by sub-section 79 (1) (d) of the Act
3. But for the sub-section 62 (b), the Central Commission would not have power to determine Transmission Tariff.
4. To ensure the compliance of sub-sections (5) and (6), the Annual Revenue Requirement (ARR) of the licensee is determined by the Commissions.
5. This Draft Tariff Regulation provides for computation of only ARR of transmission asset for any Year.
6. This Draft Tariff Regulation omits determination of transmission Tariff (Charges) payable by the user of ISTS (one/more transmission lines) including principles and methodology for determination of such Tariff..
7. **Conclusion: Make computation of the Transmission Charges a part of this Regulation.**

**Part – II: E. Scheduling Below Technical Limit**

1. A Regulation 6.3B was inserted in Grid Code (IEGC) entitled “Technical Minimum Schedule for operation of Central Generating Stations and Inter-state Generating Stations, during the period when CERC Tariff Regulation 2014 was under force.
2. Payment under any “Head” when it is consequent to the duty of generation and Supply of Electricity between the generator and the beneficiaries or between the generator and the parties other than beneficiaries as the case may be, it is the ‘Supply Tariff’ in terms of s/s 62 (1) (a). Hence it should be considered to form a part of the Tariff Regulation.
3. The “Swapping” encouraged by the UDAY Scheme notified by the Central Government has direct bearing on this aspect.
4. **Conclusion: May consider to shift the ‘Tariff Related Portion’ of Regulation 6.3B from IEGC to this proposed Tariff Regulation.**

## Part – III F. Date of Commercial Operation (DOCO)

1. 'Date of Commercial Operation' or 'COD' under definitions of this Draft Regulation and CERC Tariff Regulations 2014 read as under:

“(15) 'Date of Commercial Operation' or 'COD' shall have the same meaning as defined in **the Grid Code as amended from time to time;**”

“(14) „Date of Commercial Operation“ or „COD“ shall have the same meaning as defined in **Regulation 4 of these regulations;**”

### **[Emphasis Added]**

2. Comparing the provision in draft Regulation and 2014 Regulation, the definition of DOCO has been shifted to Grid Code – which deals with the operation of the grid (i.e technical matters only) and with reference to DOCO, Grid Code deals with allowing (i) trial run of asset and (ii) Infirm Power Injection. Once, DOCO is achieved, allow scheduling or outage(s).
3. Whereas DOCO has lawful (Income Tax Act) and contractual (Contracts Act) implications. As per Income Tax Act, only Owners are eligible to apply depreciation from the DOCO and DOCO is the bench mark date when the asset changes ownership from the Supplier/Contractor to the Owner. The 'Performance/ Acceptance Tests' are ought performed and the Liquidated damages for not meeting the guaranteed figures worked out and settled. In a way, the cost of the asset is also settled between the Parties.
4. Under the Contracts Act, only owner of the Asset can enter into a legally enforceable Contract. Thus commencement of Supply of electricity or the service of conveyance of electricity is lawful only from the DOCO. Tariff is payable from the DOCO of respective Asset.
5. In the light of explanation in preceding Paras 3 and 4, the prudence check of DOCO is as important and essential as the prudence check of Cost and hence should continue to be defined under this Regulation.
6. The certificate to be furnished by the Generator as per Appendix VI of the CERC Tariff Regulation, 2014 is more detailed one and a bit different from the certificated mandated under the IEGC. The format of this Appendix VI may be continued to be adopted.

Conclusion: Definition of DOCO should form a part of the Tariff Regulations.

### **Part – III G. Date of Commercial Operation’ (DOCO) of Long term Access (LTA):**

1. This Tariff Regulation should include the definition “Date of Commercial Operation (DOCO) of Long Term Access (LTA) in short DOCO of LTA
2. The “Procedure for grant of Long Term Access” was approved in Dec’ 09. Its procedure 25.2 (ii), (iii) and (iv) are reproduced hereunder:

“25.2 (ii) The applicant/ concerned licensee shall furnish progress of implementation of the respective generation project/system strengthening scheme, as applicable on quarterly basis to the nodal agency. Any other necessary execution or submission of information as per provisions of BPTA shall also be complied. In case POWERGRID is executing the works, POWERGRID shall inform the applicant of the progress being made for system strengthening.

25.2 (iii) The applicant/concerned licensee shall inform, in writing, at least ninety days ahead of scheduled date of commissioning and commercial operationalisation of their generation project/system strengthening scheme, as applicable to POWERGRID with copy to RLDC/ NLDC and other concerned/affected persons.

25.2 (iv) Based on information received above, the nodal agency shall confirm the applicant and concerned licensees at least sixty days ahead of scheduled **date of commencement of long-term transaction** and direct the applicant to:

- a) Establish adequate payment security within fifteen days;  
and
- b) Submit a request for scheduling of transaction to RLDC/ NLDC within fifteen days.

**[Emphasis Added]**

3. The wordings “date of commencement of long-term transaction” in clause 2 (iv) of the Procedure 25 cited above, is the date when each asset of the LTA has achieved ‘Commercial Operation’ i.e DOCO and from this date the transmission charges towards LTA are payable/ leviable.
4. Hence there is a need to include the definition of “DOCO of LTA” in Tariff Regulation by using the Procedure(s) 25.2 (ii), (iii) and (iv) cited above.
5. An Appendix may also be considered for inclusion in these Regulations so as to cover all the Assets applicable to the DOCO of LTA.

**Conclusion: Definition of DOCO of LTA may be included in this Regulation.**

## Part – III H. Economic Life and Fair (Useful) Life

1. The Regulation 28 of this Draft Regulation is reproduced:

17. Debt-Equity Ratio:

-----

-----

(6) In case of generating station or a transmission system including communication system which has **completed its useful life** as on or after 1.4.2019, the accumulated depreciation as on the completion of the useful life less cumulative repayment of loan shall be utilized for reduction of the equity and depreciation admissible **after the completion of useful life** and the balance depreciation, if any, shall be first adjusted against the repayment of balance outstanding loan and thereafter shall be utilized for reduction of equity till the generating station continues to generate and supply electricity to the beneficiaries.

-----

-----

“28. Special Provision for thermal generating station which have completed 25 years of operation from commercial operation date:

(1) In respect of a thermal generating station that has completed **25 years** of operation from the date of commercial operation, **the generating company and the beneficiary may agree** on an arrangement where the total cost inclusive of the fixed cost and the variable cost for the generating station as determined under these regulations, shall be payable on scheduled generation instead of the pre-existing arrangement of separate payment of fixed cost based on availability and energy charge based on schedule.

(2) The beneficiary will have the first right of refusal and upon its refusal to enter into an arrangement as above the generating company shall be free to sell the electricity generated from such station in a manner as it deems fit.

**[Emphasis Added]**

### Observations/ Comments/ Suggestions:

2. Wording “Useful Life” may get disputed – Parties may argue that useful life is the life upto when the Asset is used (commercially).
3. The period of “25 years” or “Useful Life” may be replaced with “Fair Life” so as to include ~~DG Sets~~ and ‘Open Cycle Gas Turbines within the ambit and allowing change of life. **The “Fair Life” and “Economic Life” may be considered for defining as under:**

**“Economic Life” for the purpose of these regulations means the actual Life of an Asset before that Asset is Decapitalised.**

**“Fair Life” for the purpose of these regulations means the “Useful Life” of an Asset for the used for the purpose of Depreciation of that Asset.**

4. The Fair Life may be different from the Useful Life.
5. Any change for bringing clarity merits no substantiation.

### **Part – III I. ‘Fuel Supply Agreement’ (FSA)’**

1. The Definition in this Regulation of ‘Fuel Supply Agreement’ (FSA) is:

3 (27) ‘Fuel Supply Agreement’ means the agreement executed between the generating company and the fuel supplier for generation and supply of electricity to the beneficiaries;

#### **Observations/ Comments/ Suggestions:**

2. The definition communicates that the intent of FSA is for “generation and supply of electricity to the beneficiaries”.
3. The definition may be considered for re-wording (shown track mode vis-a-vis the present definition) as under:

3 (27) ‘Fuel Supply Agreement’ means the agreement executed between the fuel supplier and the generating company for supply of Fuel to the generating station. The generating company will use that Fuel for generation and supply of electricity to the beneficiaries;

4. It merits to be clarified that the FSA scope is limited to the supply of the Fuel to the generating station and that the coal supplied under the FSA shall be used only for supply to the beneficiaries..

### **Part – III J. ‘Force Majeure Events’**

1. ‘Force Majeure Events’ under definitions read as under:

(26) ‘Force Majeure’ for the purpose of these regulations means the event or circumstance or combination of events or circumstances including those stated below which partly or fully prevents the

generating company or transmission licensee **to complete the project** within the time specified in the Investment Approval, and only if such events or circumstances are not within the control the generating company or transmission licensee and could not have been avoided, had the generating company or transmission licensee taken reasonable care or complied with prudent utility practices:

- (a) Act of God including lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, geological surprises, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred years; or
- (b) Any act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action; or
- (c) Industry wide strikes and labour disturbances having a nationwide impact in India;
- (d) Delay in obtaining statutory approval for the project except where the delay is attributable to project developer;

**[Emphasis Added]**

- 2. The definition is applicable for only construction period. In this definition words “for Construction Period” may be inserted after ‘Force Majeure at the beginning of the definition.
- 3. The definition is required also the “Operation Period”. This may kindly be inserted after 26, (being numbered as 26 a - shown in track change mode with reference to existing definition 26) as under:

26 a) ‘Force Majeure for ***Operation Period*** for the purpose of these regulations means the event or circumstance or combination of events or circumstances including those stated below **which partly or fully prevents** the generating company or transmission licensee **to supply, operate or maintain the asset**, and only if such events or circumstances are not within the control of the generating company or transmission licensee and could not have been avoided, had the generating company or transmission licensee taken reasonable care or complied with prudent utility practices:

- (a) Act of God including lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, geological surprises, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred years; or

- (b) Any act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action; or
- (c) Industry wide strikes and labour disturbances having a nationwide impact in India;
- (d) The non-availability of the Open access in a corridor that prevented the generating station to fulfil its obligation to Supply Delay in obtaining statutory approval for the project except where the delay is attributable to project developer;
- (e) Partial or full backing down of the generating station due to the non-availability of linkage Fuel or Water
- (f) Partial or full backing down of the generating station due to the background pollution level (requiring the generating station to back down)
- (f) Partial or full backing down of the generating station for carrying out any modification due to change in law;

The 'Force Majeure Event' shall not put any liability on any of the Party concerned (i.e Each Party is to absorb the impact of the Force majeure Event as a business risk) during the operation period affected by Force Majeure. However, the interest and reasonable portion of the O&M Expenses shall be allowed to be capitalised as loan (to be repaid by the additional depreciation during the remaining fair life). The Fair Life of the Asset shall be increased by equal (same) Period (i.e Depreciation for Force Majeure Period to be postponed)

**Explanation to support this Change:**

The principle is borrowed from the Standard Bidding Documents (Draft PPA/ Draft TSAs) notified by the Government of India. They have been finalised after intensive discussion/ consultation with the stake holders. The Principle of postponing the depreciation picked up from the ES Act, 1948;

### **Part III: K. GCV as received**

1. The definition of 'GCV as received' in this draft Regulation is as under

(31) 'GCV as received' means the GCV of coal or lignite as measured at the unloading point of the thermal generating station through collection, preparation and testing of samples from the loaded wagons, trucks, ropeways, Merry-Go-Round (MGR), belt conveyor and ship in accordance with the IS 436 (Part-1/ Section 1)- 1964:

Provided that the measurement of coal or lignite shall be carried out through Third party sampling to be appointed by the generating companies in accordance with the guidelines, if any, issued by Central Government;

Provided further that samples of coal or lignite shall be collected either manually or through hydraulic augur or **through any other method** considered suitable keeping in view the safety of personnel and equipment:

Provided also that the generating companies **may adopt any advance technology** for collection, preparation and testing of samples for measurement of GCV in a fair and transparent manner.

2. The First Proviso for clarity is proposed to be amended as under:

Provided that the concerned generating company shall appoint a Third party for collection, preparation and testing of samples of the coal or lignite as the case may be,. in accordance with the guidelines, as and when issued by the Central Government;

3. The second and third Proviso(s) appear allowing deviation from the IS specified in the sub-Regulation (31). For deviation, the right course of action is to seek BIS (the Author) to examine the difficulties faced by the Party or look upon the advance Technology and amend the concerned Standard.

### **Part II: L. Plant Load Factor' or '(PLF)**

1. 'Plant Load Factor' or 'PLF' under definitions read as under:

“(51) 'Plant Load Factor' or '(PLF)' in relation to thermal generating station or unit for a given period means the total sent out energy corresponding to scheduled generation during the period, expressed as a percentage of sent out energy corresponding to installed capacity in that period and shall be computed in accordance with the following formula:”

[The Formula is given there-under]

2. The Formula is the ratio of “Sum of Scheduled Generation” and “the maximum Possible Generation with 100% Scheduling all the Time”
3. The formula omits the “deviation from the Schedule” and to this extent is a bit different from the Industry Practice and Commonly used Term.

In the common terminology, numerator is to include the deviation also.

4. Therefore, there is a merit in using a Term different from PLF. This term is relevant for determining the incentive for a thermal generating station. Plant Schedule Factor (PSF) can be one choice.
5. **Conclusion: May kindly consider an appropriate substitute.**

#### Part IV: M. ‘Cost of Capital and Rate of Return on Equity’

1. The Commission had got a study done in the Year 2000 or so, for assessing the cost of Capital and Returns of other Sectors, for guiding itself for allowing the Rate of Return on Equity. Consequently, the foreign equity was debarred from compensation due to FE Fluctuation.
2. Since then, it appears that no study has either been commissioned or intent to be commissioned in near future, as is evident from this Draft Regulation.
3. No industry commences to make profit from the day-1 of operation, break-even takes about a minimum one year from start of production. Therefore, there is a need to re-look the Rate of Return of the order of 15% (Net of Tax) coupled with performance based incentives, when demand risk percolates down to Consumer Tariff and in-efficiency of mismatch between the generation and the transmission also find its way to the Consumer Tariff..
4. There is a marked difference between the distribution business and generation or transmission on the business risk(s) perspective.
5. That the following Table Shows the IRR (Internal Rate of Return) for an Equity deployed in a generation or Transmission Project.

Year	-9	-8	-7	-6	-5	-4	-3	-2	-1	0
IRR	10.0%	10.6%	11.2%	11.9%	12.8%	13.8%	15.1%	16.8%	19.0%	22.4%

If Equity of Rs. 100 Crores is invested 9 years before the ‘Commercial Operation Date’ (DoCO) the fixed charge revenue stream gives it an IRR of only 10% p.a while the same amount of equity invested on or around DoCO would yield as much as 22.4%. The IRR is comparable to the interest rate (i.e gross of tax). The IRR for a Project shall be the weighted average of IRRs of Equity deployed.

The IRR for an Equity invested after 10 years (after the Tax Holiday) would be 25% or so plus the performance based incentive.

Glaring example is the installation/ replacement of a Transformer or Reactor, Before the payment is released, the Asset is ready to earn Return – which is equivalent to more than 25% p.a (accounting for Tax and incentives).

6. **Conclusion: This Regulation should differentiate between the projects of long gestation (like Hydro Stations), medium gestation (Thermal or Transmission Lines more than 50 Km or so) and short gestation (LILOs or Transmission Lines less than 50 Km, Sub-station Extensions/ Renewable Sources’ Stations) for the purpose of allowing Rate of Returns.**

## Part IV: N. 'Depreciation'

1. This is in continuation of 'Depreciation' discussed under Part I, where the statutory provisions of 'Depreciation' have been discussed.
2. A few of the Provisions in this Regulations related to the Depreciation (using DOCO for Date of Commercial Operation) are::

**“33. Depreciation:** (1) Depreciation shall be computed from the DOCO of a generating station or unit thereof or a transmission system including communication system. In case of the tariff of all the units of a generating station or a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective DOCO of the generating station or the transmission system taking into consideration the depreciation of individual units.

Provided that effective date of commercial operation shall be worked out by considering the actual DOCO and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(2) **The value base for the purpose of depreciation** shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

(3) **The salvage value of the asset shall be considered as 5% and depreciation shall be allowed up to maximum of 95% of the capital cost of the asset:**

**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.**

Provided further that in case of hydro generating station, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the Plant:

Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission

system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.

(7) The generating company or the transmission license, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services.

### **Observations/ Comments/ Suggestions:**

3. "Depreciation" remains with the Owner of the Asset, used for repayment of loan or investment in new Assets, and may be computed as proposed in this Draft Regulation with the following exceptions:

In sub Regulation 30 (3), Salvage Value may be 15% for retaining the interest of the Owner with the Asset and Proviso for IT Equipment and software may be omitted. Instead, another Proviso may be added that Salvage Value shall be 'Nil' for those 'Interstate Hydro Generating Stations' that are required to be handed over back to the concerned State Government after the expiry of Implementation Agreement.

4. The suggestion is supported by the Arguments forwarded under the Part I. In addition, the suggestion draws strength from:

- (a) This Regulation determines the Tariff Asset-wise - Only Asset is to be focussed upon; The other Assets or businesses have no impact on Tariff; Actual Tax Paid should have no bearing on the Tariff as actual Tax Paid is dependent on fiscal incentives/ other segments of business.
  - (b) Higher depreciation rate tends to front load the Tariff Trajectory
5. Depreciation as an 'Expense' to form a component of the Tariff envisaged under this Regulation is different from the Depreciation as 'Recovery of Capital from the Business' as envisaged in Companies Act or Income Tax Act.
  6. These Regulations may take into account the effect on 'Tax Stream' because of the Depreciation as 'Recovery of Capital from the Business' as envisaged in Companies Act or Income Tax Act.
  7. Background of Depreciation for Tariff is discussed in the next paragraphs.

**Background of Depreciation vis-a-vis Embedded Cost Tariff:**

8. The term 'depreciation' may have many academic definitions, but the intent of depreciation as per Income Tax Act is recovery of Capital from the Business. It demarcates "the operating profit after Interest" and the "Taxable Profit". This has been the basis for allowing depreciation so far.

In "Embedded Cost Mechanism" the depreciation is first used to repay the loans followed by recovery of Equity by the Owners.

9. For attracting the capital in the electricity sector, the RoE (net of Tax) was envisaged and allowed to be charged on entire equity for the fair life of the Asset, although the Owners recovered their equity through depreciation once the loan was repaid. This approach may have a point, that the equity did not earn any return during the construction period. This complexity made the Regulations to restrict the equity to 30% of Capital Cost and also the concept of 'Notional debt' when the owner deployed capital in excess of 30% of the Capital Cost.
10. In the light of the explanation given in preceding para, owners have been finding out the ways to defer the investments to post-DOCO time so as to maximise the Equity IRR (Investor Perspective).
11. The Depreciation Rates notified by this Regulation are also applicable to the Assets created under free market i.e those which are exposed to the tariff discovery through Market Forces (Demand Supply). Therefore, there is a sense in aligning the Depreciation Rates with the other sectors.

That is, the Principles and Rates notified by the Institute of Chartered Accountants for Industries may be adopted in toto with provisos to be applied for regulated Assets. The Proviso being that the depreciation during the Fair Life of (Regulated) Asset shall not exceed 85% cumulative.

12. The second Proviso being that Capital Cost for determination of Tariff and for that purpose the Depreciation, shall be the prudent Capital Cost admitted by the Commission for that Asset. This Admitted Cost shall not include the grant or subsidy received by the Asset from any Source.
13. Third Proviso being that any investment after DOCO, with the prior approval of the Commission shall be funded by only Debt and eligible for the depreciation as per ICAI determined Rates/ Methodology.
14. Needless to count the gains for aligning depreciation method/ rate(s) with other Sectors of the Country. This is the Industry demand who wish to gain out of fiscal incentives available for many assets like environment control equipments and/or renewable sources of energy – their legitimate right. It will also allow some adjustment in Tax payable due to the disallowed cost by the Commission for inefficient implementation.
15. Thus, for safeguarding the interest of Tariff, the annual depreciation may be provided at a rate equal to 85% of Admitted Asset divided by the Fair Life of the Asset. Provided that the Depreciation for Period Affected by Force Majeure shall be allowed to be carries over in the extended period.

Suppose Admitted Cost of a thermal generating station is Rs. 12,000 Crs and its fair life is 25 Years. Then its written down value at the end of 25 years shall be 1800 Crores and depreciation of  $10,200/25 = \text{Rs. } 408 \text{ Crs.}$  per annum. For any Force Majeure a period of one month is lost during third year of operation, then Rs. 34 Crores depreciation of 3<sup>rd</sup> Year shall be carried over to the 1<sup>st</sup> month after 25 Years.

16. Reduction of salvage value form 10% to 5% is not in consumer interest. Salvage Value merits to be increased to 15% with exception.

#### **Part IV: O. 'Interest on Loan Capital'**

7. Regulation 32 under "COMPUTATION OF ANNUAL FIXED COST" read as under:

"32. **Interest on loan capital:** (1)The loans arrived at in the manner indicated in Regulation 17 of these regulations shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(8) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiaries or the long term transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.

8. Regulation 17 referred above relates to debt; equity ratio, which shall be 70:30 or better (i.e equity shall not be more than 30% of the investment and the excess amount shall be treated as 'Notional Debt'. Notional Debt shall carry the weighted average rate of interest of actual debts.

9. Sub-Regulation 20 (5) is also reproduced:

“20. Interest During Construction (IDC) and Incidental Expenditure during Construction (IEDC)

-----

-----

(5) If the delay is attributable either in entirety or in part to the generating company or the transmission licensee or its contractor or supplier or agency, in such cases, IDC and IEDC beyond SCOD may be disallowed after due prudence check either in entirety or on pro-rata basis corresponding to the period of delay not condoned and the liquidated damages, if any, recovered from the contractor or supplier or agency shall be retained by the generating company or the transmission licensee, as the case may be.”

### **Observations/ Suggestions/ Comments:**

10. The rate of interest comprises of the following elements:

- (a) Real Cost of Money with Time**
- (b) Compensation for inflation**
- (c) Compensation for Income Tax**
- (d) Lenders’ overheads (to manage the business of lending)**
- (e) Lenders’ cost of Construction Monitoring**
- (f) Lenders’ margin of Profit;**
- (g) Risk(s) – Construction Period**
- (h) Risk(s) – Operation Period**
- (i) Risk – Track Record of Management(s)**

11. **Components (a), (b) and (c)** are reflected in the ‘Repo and Reverse Repo Rate’ notified by RBI from time to time – an ‘inter-Bank (risk free) Rate. {The interest receivable by the Banks is ‘Taxable’ and therefore, Rate is inclusive of the element (c).}

12. In India, (d) (e) and (f) elements change from Lender to Lender & notified from time to time by Banks as their respective ‘Prime Lending Rate(s)’.

13. While processing the loan application, the Lender evaluates the risks (g), (h) and (i) and agrees for the lending rate for respective projects, as clearly illustrated from the following facts:

- (a) The Rate of Interest is low for Balance sheet funding when compared with ‘project specific funding’
- (b) The interest rate is low for Management with good track record;
- (c) The interest rate is high for hydro projects (due to construction risks)
- (d) The interest rate is low for Project under operation; etc.

14. Therefore, there is merit for allowing a lesser interest rate for operation period (as compared to the weighted average rate during construction);

15. Whenever two or more lenders finance a Project, a Consortium Agreement is executed, which has a common term invariably in each Agreement – the interest rate charged by the lenders shall be highest rate agreed to by each lender individually. In case SBI agreed to lend at 12% p.a, and Dena Bank agrees for 13% p.a then SBI shall also hike its rate to 13%. In other words, SBI gains on the inefficiency of Dena Bank reflected in PLR of the weaker Dena Bank. This term merits closer scrutiny of the Regulation and normalised so that Tariff is fairly burdened by the risk(s).
16. As per the terms of loan agreements, the Lender is a 'Secondary Owner' who takes over the assets, manages the Assets in the event of Failures. The lender(s) even approach the Commission for transfer of Transmission License to the Lender in eventualities. Hence, the Lender is a necessary Party while determination of Tariff of the Project funded by the Lender. As a lender he monitors the construction through Lender Engineer appointed by the Lender for a fee. Therefore, the lender must be liable to pay for the inefficiency (time or cost over-run). It is unfair to pass on the inefficiency to the Consumer.
17. The interest rate(s) include within them mark-up for the risk(s) mentioned at (g), (h) and (i) at Para 4 above. These mark-up(s) are premium to cover the corresponding risk. In the eventuality of the risk actually encountered, the premium should pay for the impact. For example, if the operation is hit by 'Force Majeure Event', the interest for that period should be paid by the risk premium built within the interest rate. Similarly, if the gestation period of the project gets extended, the impact should be first borne by the risk premium built within the interest rate.
18. The facts stated in preceding two paragraphs, substantiate that Lender should be made a 'Necessary Party' for the determination of the Tariff.
19. **Conclusion:**
  - (1) These Regulations should provide that "Lender is a necessary Party for the proceedings of the Tariff Petition
  - (2) The interest shall pay for the delays, appropriate provisions may be added under the prudence test of the cost/ time over-run.
  - (3) Direct Lender(s) to charge the interest rate after due checking of the Consortium Loan Agreement
  - (4) Direct Lenders not to charge the Interest for the 'Force Majeure Event' Period during the construction or operation as the case may be, and
  - (5) Direct Lenders to charge lower interest rate for operation period.

## **Part IV: P. 'R&M Due to Change in Law (e.g Environment Norms)**

1. The following are the Provisions in this Regulation dealing with additional Investment due to Change in Law including new Environment Norms:

3(2) 'Additional Capital expenditure' means the capital expenditure incurred, or projected to be incurred after the date of commercial operation of the project by the generating company or the transmission licensee, as the case may be, in accordance with the provisions of these regulations;

3 (3) 'Additional Capitalisation' means the additional capital expenditure admitted by the Commission after prudence check, in accordance with these regulations;

3 (4) 'Admitted capital cost' means the capital cost which has been allowed by the Commission for servicing through tariff after due prudence check in accordance with the relevant tariff regulations;

(57) 'Revised Emission Standards' in respect of the thermal generating station means the revised norms notified as per Environment (Protection) Amendment Rules, 2015 or any other rules as may be notified from time to time;

### **CHAPTER-3: PROCEDURE -- TARIFF DETERMINATION**

#### **8. Tariff determination**

8 (4) Assets installed for implementation of the revised emission standards shall form part of the existing generation project and tariff thereof shall be determined separately on submission of the completion certificate by the Board of the generating company.

#### **9. Application for determination of tariff:**

(3) In case of emission control system required to be installed in existing generating station as per revised emission standards, the application shall be made for determination of supplementary tariff (fixed charges or variable charge or both) based on the actual capital expenditure duly certified by the Auditor;

#### **14. Components of Tariff:**

(2) The supplementary fixed cost for additional capitalization on account of implementation of revised emission standards in the existing generating station or new generating station, as the case may be, shall be determined by the Commission separately;

#### **16. Variable Charges or Energy Charges:**

2<sup>nd</sup> Proviso to Regulation 16: Provided further that the methodology of determination of supplementary energy charges, if any on account of implementation of revised emission standards in case of a thermal generating station shall be determined separately by the Commission;

#### **18. Capital Cost:**

(2) The Capital Cost of a new project shall include the following:  
(a) -----; (n) Expenditure on account of change in law and force majeure events. (o) -----;

(5) The following shall be excluded from the capital cost of the existing and new projects:

[no mention of cost due to change in norms]

**29. Additional Capitalization on account of Revised Emission Standards:**

(1) A generating company requiring to incur additional capital expenditure in the existing generating station for compliance of the applicable revised emissions standards shall share its proposal with the beneficiaries and file a petition for approval for undertaking such additional capitalization;

(2) The proposal under clause (1) above shall contain details of proposed technology as specified by the Central Electricity Authority, scope of the work, phasing of expenditure, schedule of completion, estimated completion cost including foreign exchange component, if any, detailed computation of indicative impact on tariff to the beneficiaries, and any other information considered to be relevant by the generating company;

(3) Where the generating company makes an application for approval of additional capital expenditure on account of implementation of Emission Control Standards, the Commission may grant approval after due consideration of the reasonableness of the cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis, and such other factors as may be considered relevant by the Commission.

(4) After completion of the implementation of revised emission standards, the generating company shall file a petition for determination of tariff. Any expenditure incurred or projected to be incurred and admitted by the Commission after prudence

Proviso i to sub-Regulation (2) of “30. Return on Equity”.

Return on equity in respect of additional capitalization after cut off date within or beyond the original scope shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

**Observations/ Comments/ Suggestions:**

2. It is beyond doubt that investment is consequent to “Change in Law”.
3. This Regulation appears not specifying the norms or the principles to guide the adoption of Norms (i.e Debt: Equity Ratio, Rate of Return on Equity, Tax on Income, Depreciation, difference in life of new Asset and remaining Fair Life of the Asset etc);

4. This Regulation appears not specifying the treatment of planned outage for Installation of the New Equipment; i.e Whether Consumer is to pay the fixed charges without getting supplied any electricity or the period shall be reckoned as Force Majeure Condition, and each Party is to bear the impact as a 'Business Risk';
5. **Conclusion:**
  - (1) Regulations may kindly be considered for re-wording
  - (2) "Change in Law" should not be an opportunity for "Windfall Gains"
  - (3) Outage Period be treated as Force Majeure Period – Treatment as per definition proposed for 'Force Majeure'
  - (4) Should be funded by only Debt (or Notional Debt for Promoters' Equity)

#### **Part IV: Q. Interim Arrangements made to achieve early Commercial Operation:**

1. This Tariff Regulation has omitted to include "Treatment to the cost which is not a part of the original capital cost but that has been incurred for early 'Commercial Operation of the Asset'.
2. There may be instance(s) when the owner makes interim arrangement (of any type or kind) to make up for delay in completion of any equipment or System or any Asset so as to advance the commercial operation. In such a case, following two issues would emerge:
  - (i) Whether such "Date of Commercial Operation" (DOCOCO) is tenable; and
  - (ii) The treatment to the cost (to set up and/or operate) for Arrangement.
3. The interim arrangement pre-pones the stream of 'Return on Equity', thus incrementing the 'Net Present Value' of the Return on Equity or the IRR of the Project from Owner perspective. Hence, RoE should pay for the cost of capital (including depreciation or Sunk Cost) and O&M of the 'Interim Arrangement'. It means that the Asset owner should work out feasibility and the economics of Interim Arrangement and take a conscious decision.
4. **Conclusion:** (1) Treatment to the additional cost incurred for creating 'interim arrangement' and 'O&M of Interim Arrangement' be made part of this Tariff Regulation. (2) Return on Equity should pay for Interim Arrangement and (3) Tariff should not be burdened with this element.

## Part IV: R. Capital Structure – Post Fair Life

1. A new Regulation 28 has been introduced which is reproduced:

“28. Special Provision for thermal generating station which have completed 25 years of operation from commercial operation date:

(1) In respect of a thermal generating station that has completed **25 years** of operation from the date of commercial operation, **the generating company and the beneficiary may agree** on an arrangement where the total cost inclusive of the fixed cost and the variable cost for the generating station as determined under these regulations, shall be payable on scheduled generation instead of the pre-existing arrangement of separate payment of fixed cost based on availability and energy charge based on schedule.

(2) The beneficiary will have the first right of refusal and upon its refusal to enter into an arrangement as above the generating company shall be free to sell the electricity generated from such station in a manner as it deems fit.”

**[Emphasis Added]**

### Observations/ Comments/ Suggestions:

2. The period of “25 years” is proposed to be replaced with “Fair Life” in the definitions of Fair/ Economic Life.
3. This Tariff Regulation should consider all Assets that have completed the Fair Life (Useful Life) uniformly, with the following principles consequent to the embedded cost methodology adopted by the Tariff Regulations so far:
  - (a) Customer Contribution (Equity): The Customer compensates through Tariff for inflation – an element in rate of return on Equity and other element in interest rate on the Loan. After the expiry of the Fair Life of the Asset, the Customer has stake of inflation built within the residual value of the Asset. Thus after the expiry of the Fair Life, the element of extra inflation contributed by the Customer be capitalised.

Thus, Equity = 10% of the Original Equity (belonging to the Promoter)  
plus  
the Notional Equity equal to extra compensation towards  
inflation (belonging to the Customer)

- (b) Since the Electricity Act seeks ‘Regulated Market’ and ‘Free Market’ to co-exist, there is no compulsion upon the Regulator to intervene in the R&M and/or Life Extension Schemes or ‘Changes envisaged by Change in Law’ beyond the Fair Life. The ‘market driven electricity price’ should decide the course beyond fair Life. There is no merit of assuring any return or monitor the slippages in time schedule.

- (c) There is no merit in reimbursement of Income Tax on the Returns
- (d) There is no merit to continue with Availability Based Tariff. Instead, earlier Norm of 68.5% PLF may be adopted for computing the Tariff Applicable for the Financial Year. Beneficiaries being the share holders, the term “Tariff” may be changed with “Transfer Price”.
- (e) The Regulations may provide ceiling norms for Return on Equity, O&M, Gross Station Heat Rate, Secondary Fuel Oil Consumption, Auxiliary Power Consumption etc. allowing the option to follow the same in case the stakeholders intend to do so. The role of original promoter(s) being that of an O&M Contractor.

They may sell the generation in free market and distribute the Profit.

- (f) As and when the Asset is decommissioned, it is to be sold and the proceeds shared in the ratio of the shareholding.
- (g) In case of Transmission Assets, CTU may be considered for owning the Assets with O&M Charges be determined through the competitive bids for successive period(s) of five years. .

4. **Conclusion:** Regulations may kindly be re-worded suitably.

## Part V: S. Scope and extent of application

1. Regulation 2 entitled “Scope and extent of application” is reproduced:

“2. Scope and extent of application. (1) These regulations shall apply in all cases where tariff for a generating station or a unit thereof and a transmission system or an element thereof is required to be determined by the Commission under section 62 of the Act read with section 79 thereof:

Provided that any generating station for which agreement(s) have been executed for supply of electricity to the beneficiaries on or before 5.1.2011 and the financial closure for the said generating station has not been achieved by 31.3.2019, such projects shall not be eligible for determination of tariff unless fresh consent of the beneficiaries is obtained and furnished.”

2. This may kindly be amended to read (shown in Track change Mode) as under:

2. Scope and extent of application. (1) These regulations shall apply in all cases where tariff for a generating station or a unit thereof and a transmission system or an element thereof is required to be determined by the Commission under section 62 of the Act read with section 79 thereof:

Provided that any Power Purchase Agreement executed for any Central generating station shall be void except that there is a promise to buy/sell the capacity (MW), Tenure and nature of Supply and the tariff of such Central generating station shall be determined as per the provisions of this Regulation.

Provided further that any Transmission Service Agreement executed for use of any element of the Interstate Transmission System shall be void except the requirement of any dedicated element and the tariff of such element shall be determined as per the provisions of this Regulation.

Provided that any Central generating station for which ‘Memorandum of Understanding(s)’ or agreement(s) have been executed for supply of electricity to the beneficiaries on or before 5.1.2011 and the financial closure for the said generating station has not been achieved by 31.3.2019, such projects shall not be eligible for determination of tariff unless fresh consent of the beneficiaries is obtained and furnished.

Provided further that these Regulations may be on merits, applied to any Asset whose Tariff Petition is filed but Tariff is being determined.

Provided also that provisions of these regulations shall not apply to any Inter-state generating station where the Power Purchase Agreement has been executed with the approval of the Appropriate Commission.

**Explanation to support the Suggestion:**

3. First and Second Provisos are supported by the Act, portion is reproduced:

Section 62. (Determination of tariff): --- (1) The Appropriate Commission shall determine the tariff in accordance with the provisions of this Act for –

(a) supply of electricity by a generating company to a distribution licensee:

-----  
-----

(b) transmission of electricity ;

-----  
-----

Section 79. (Functions of Central Commission): --- (1) The Central Commission shall discharge the following functions, namely:-

(a) to regulate the tariff of generating companies owned or controlled by the Central Government;

-----  
-----

(c) to regulate the inter-State transmission of electricity ;

(d) to determine tariff for inter-State transmission of electricity;

First Proviso draws strength from the Act when s/s 79 (1) (a) and s/s 62 (1) (a) read together. The “Tariff” includes all sort of payments arising out of buy/sell. Thus, the ‘Payment Security Mechanism’ and the ‘Terms of Payment’ are the part of the Tariff and required to be determined u//s/s 62 (1) (a).

Second Proviso draws strength from the Act when s/s 79 (1) (c), 79 (1) (d) and s/s 62 (1) (b) read together along with the Sharing Regulation. Only the load flow carried out for the transaction under different scenarios shall determine the elements of interstate transmission system being used and hence consequent liability of the transaction. In the transmission tariff also, The “Tariff” includes all sort of payments arising out of service of conveyance of electricity by use of the

element(s) of the interstate transmission system. Thus, the 'Payment Security Mechanism' and the 'Terms of Payment' are the part of the Tariff and required to be determined u/s/s 62 (1) (b). Any TSA executed by the user with a Party other than CTU is void. The Implementation Agreement between Central Generating Station and the Transmission Licensee is also void as the consequence of mismatch of commercial operation date(s) is to be decided by this Regulation only.

4. For change in third Proviso (only Proviso in the Draft Regulation), the MOUs (and not PPAs) were executed between the State/ Licensee with CPSUs for allocation of the capacity (MW)/ quantum (MW)/ share (%).
5. For last Proviso, the PPA is ought to have been executed based on the CERC Tariff Regulation prevailing at the time of execution of the PPA and the norms borrowed from the then CERC Tariff Regulation. Subsequent change in the Regulation is "Change in Law" for that PPA which was legally enforceable.

## **Part V: T. Consequences for Mismatch of Date(s) of Commercial Operation' (Mismatch of DOCOs)**

1. It is likely that 'Date of Commercial Operations' (DOCOs) of the generating station and (interdependent) transmission systems may mismatch. Their reason(s) are not a matter of concern, but the consequences of the mis-match as provided in this Regulation is a matter of concern.

2. The Various Provisions in this Regulation are as under:

"6. Treatment of mismatch in date of commercial operation:

(1) In case of mismatch of the date of commercial operation of the generating station and the transmission system, the treatment of the transmission charges shall be determined as under:

(a) Where the generating station has not achieved the commercial operation as on the date of commercial operation of the associated transmission system (which is not before the SCOD of the generating station) and the Commission has approved the date of commercial operation of such transmission system in terms of Regulation 5(2) of these regulations, the generating company shall be liable to pay the transmission charges of the associated transmission system in accordance with clause (5) of Regulation 14 of these regulations to the transmission licensee till the generating station or unit thereof achieves commercial operation;

(b) Where the associated transmission system has not achieved the commercial operation as on the date of commercial operation of the concerned generating station or unit thereof, the transmission licensee shall make alternate arrangement for the evacuation from the generating station at its own cost, failing which, the transmission licensee shall be liable to pay the transmission charges to the

generating company at the rate of the applicable transmission charges of the region as determined in accordance with the Sharing Regulations till the transmission system achieves the commercial operation.

Provided that despite making alternative arrangement of evacuation, if the associated transmission system does not achieve the date of commercial operation within the six months of date of commercial operation of the generating station, the transmission licensee shall be liable to pay to the generating company the applicable transmission charges of the region as determined in accordance with the Sharing Regulations in addition to the above.

(2) In case of mismatch of the date of commercial operation of the transmission system and the transmission system of other transmission licensee, the treatment of the transmission charges shall be determined as under:

(a) Where an interconnected transmission system of other transmission licensee has not achieved the commercial operation as on the date of commercial operation of the transmission system (which is not before the SCOD of the interconnected transmission system) and the Commission has approved the date of commercial operation of such transmission system in terms of Regulation 5(2) of these regulations, the other transmission licensee shall be liable to pay the transmission charges of the transmission system in accordance with clause (5) of Regulation 14 of these regulations to the transmission licensee till the interconnected transmission system achieves commercial operation;

(b) Where the transmission system has not achieved the commercial operation as on the date of commercial operation of the interconnected transmission system of other transmission licensee, the transmission licensee shall be liable to pay the transmission charges of such interconnected transmission system to the other transmission licensee and in the absence of transmission charges, at the applicable transmission charges of the region as determined in accordance with the Sharing Regulations till the transmission system achieves the commercial operation.”

3. It makes sense to examine in how many cases of mis-match of DOCOs of two inter-linked Assets, the penalty hits the balance sheet of the defaulting Party. In most of the cases, the delay would pass the prudence test and the penalty paid getting capitalised in defaulting Asset and would percolate down to the Tariff. Thus Penalty would eventually shift to Consumer.

Since the penalty is paid nearer to the DOCO of defaulting Asset, the ARR of that Asset is burdened by interest on 70% of Penalty, Return on 30% of Penalty and performance based incentive on 30%. As a routine, the Asset receiving the Penalty is idle from the date of its deemed DOCO until the DOCO of the concerned matching (delayed) Asset, still it is allowed 100% of the O&M and for 100% Availability for performance based incentive.

4. These Provisions merit re-visit on two counts.
5. First, All the Parties (owners of the Assets) are to mutually co-ordinate for monitoring the physical progress of interdependent Assets. All the Parties are to hold quarterly meetings to ensure timely and matching DOCOs. Hence, for any mis-match to occur, all of the Parties are at fault and hence each Party deserves to bear the consequences of mis-match.
6. Second, there is a written Agreement (Implementation Agreement) among the Parties. Therefore, the principles of Order XXXVII of CPC merit apply and the defaulting Party is to compensate by an amount equal to the loss incurred by other Party. Thus interest for the default period, Insurance for premium and Watch and Ward expenses for the default period is justified. The depreciation is not payable, as the lenders are to be pursued to defer the repayment and Return on Equity is to be forgone. Allowing Deemed DOCO and therefore levying 'Minimum Alternate Tax' is unjustified as the cost of capital on this amount is likely to be passed on to the Consumers, who has no fault in the entire sequence of events.
7. In this connection, the portion of the Schedule VI of the Electricity (Supply) Act, 1948 (State of West Bengal) is also reproduced:

"VI. (a) The licensee shall provide each year for depreciation such sum calculated in accordance with such principles as the Central Government may, after consultation with the Authority, by notification in the Official Gazette, lay down from time to time.

**(b) Where in any particular year depreciation cannot be adjusted against revenue the same may be carried over to subsequent years.**

(c) The provisions of this paragraph shall apply to the charging of depreciation for the year in which The Electricity (Supply) Amendment Act, 1978 (23 of 1978), comes into force.)"

**[Emphasis Added]**

The Principle of Law can be borrowed from this portion, which provides that the depreciation may be carried over to subsequent years..

8. <sup>1</sup>The remedy also is to have a common "Date of Commercial Operation". Let us assume there are four 'inter-dependent Assets' A1, A2, A3 and A4 with DOCOs as D1, D2, D3 and D4 respectively (D4 being the latest). The Regulations have to lay down the way in which Asset A1 shall be treated for the period between D1 and D4. First, this D1 to D4 is Force Majeure Period. If this asset can be

---

<sup>1</sup> In case this proposal is accepted, the definitions of DOCO, Regulation concerning Depreciation, Capital Structure, Return on Equity also require re-visit.

partially used, the revenue should set-off the O&M expenses, followed by interest, return and depreciation in the same order. The return to be used actually for repayment of loan and treated as notional loan in the Capital Structure. The unrecovered interest and the Return on Equity (not full, say 50%) to be capitalised as notional loan in the Capital structure. Same treatment to Asset A2 and A3.

The compensation leviable on Asset-4 may be apportioned among other three Assets (A1, A2 and A3) to reduce their respective Capital Cost.

The Fair (useful) Life of all the Assets (A1, A2, A3 and A4) may commence from D4 as also the normative stream of Revenue.

9. The following Proviso may be added under Regulation 2 entitled “Scope and Extent:

“Provided further that these Regulations may on merits, be applied to any Asset whose Tariff Petition is filed but Tariff is being determined.”

**Conclusion: (1) The past cases where deemed DOCO is allowed, may be got analysed to find out the Party who paid the Penalty (visible Parties – generator/ Licensee or invisible Consumer. (2) Revisit the Provisions if the Consumer is the Ultimate sufferer.**

## **Part V: U. Consequences of Failure to Supply Coal by Coal Supplier ('Alternate Source of Coal/ Blending/ Extra Energy Charge)**

1. The Provisions in this Regulation dealing with Coal Supply (Fuel Supply Agreement, FSA, 'Coal Blending', 'Extra Energy Charge' are:

52. Computation and Payment of Energy Charge for Thermal Generating Stations:

(2) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae:

(a) For coal based and lignite fired stations:

$$ECR = \{(SHR - SFC \times CVSF) \times LPPF / (CVPF + SFC \times LPSFi + LC \times LPL)\} \times 100 / (100 - AUX)$$

Where,

-----

-----

CVPF = (a) Weighted Average Gross calorific value of coal as received, in kCal per kg for coal based stations less **85 Kcal/Kg on account of variation during storage at generating station;**

-----

-----

**(c) In case of blending of fuel from different sources, the weighted average Gross calorific value of primary fuel shall be arrived in proportion to blending ratio.**

-----

-----

LPPF = **Weighted average landed price of primary fuel, in Rupees per kg**, per litre or per standard cubic metre, as applicable, during the month. (In case of blending of fuel from different sources, the weighted average landed price of primary fuel shall be arrived in proportion to blending ratio)

(3) **In case of part or full use of alternative source of fuel supply** by coal based thermal generating stations other than as agreed by the generating company and beneficiaries in their power purchase agreement for supply of contracted power on account of shortage of fuel or optimization of economical operation through blending, the use of alternative source of fuel supply shall be permitted to generating station:

Provided that in such case, **prior permission from beneficiaries shall not be a precondition**, unless otherwise agreed specifically in the power purchase agreement:

Provided further that the **weighted average price** of use of alternative source of fuel **shall not exceed 30%** of base price of fuel computed as per clause (7) of this Regulation.

Provided also that **where the energy charge** rate based on weighted average price of use of fuel including alternative source of fuel **exceeds 30% of base energy charge rate as approved by the Commission** for that year **or** energy charge rate based on weighted average price of use of fuel including alternative sources of fuel **exceeds 20%** of energy charge rate based on based on weighted average fuel price **for the previous month, whichever is lower** shall be considered and in that event, **prior consultation with beneficiary** shall be made not later than three days in advance.”

### **Observations/ Comments/ Suggestions:**

2. It is beyond doubt that Fuel Linkage has to be in place before the Investment Decision for the Project and Fuel Management is the onus of generator. Coal Shortage Period, if due to reasons of Force Majeure, as per FSA can be taken as the Period under Force Majeure for this Regulation also. The Parties concerned have to absorb the implications as business risk.
3. The Provision of blending coals, FSA source to other source in the ratio of 70:30 and upto increment of 30% to the weighted average price implies  $[(130-70)/30=2]$  that the generator for e-auction coal or imported coal, can pay double the price of FSA Price i.e 100% increment in the energy charge for the Marginal

Supply of Electricity with Alternate Fuel Source. This relaxation upto 100% extra is very high/ unreasonable/ unlawful from any bench-mark. With this arrangement, the Generator has no business compulsion to enforce the FSA and recover the compensation from the Fuel Supplier as per FSA. Instead, the consumer tariff is unlawfully getting burdened.

4. While assessing the affordability of extra energy charge, these Regulations may consider that In the embedded cost method, the Tariff is front loaded i.e Tariff has a higher fixed charge in early life (years) which reduces with passage of life and appears cheap. This feature should not imply that the Old Station is a potential source to absorb high energy charge. While looking upon the composite Tariff (i.e Fixed/ Energy Charge) the Fixed Charge merits to be normalised for the extra fixed charge paid in the early life of the Station and for the demand risk absorbed throughout the life of the Station..
5. In the “Coal Shortage Scenario” the Declared Availability merits consideration in two Parts – Availability due to Linkage Coal and Availability due to Alternate Coal. As long as the generating station is using Alternate Coal, there is no merit in allowing any incentive due to higher Availability/ Plant Schedule Factor (PSF or PLF as may be considered). Hence, these Regulations may provide at proper place for dividing the Total Schedule of the Plant in two Portions:

Portion 1: Availability corresponding to Linkage Coal

Portion 2: Availability corresponding to Alternate Coal

Each Portion has to be dealt separately on merits for computing Fixed Charge. Total Availability for the year for Portion 1 should correspond to the total coal linkage quantum received. Lack of electricity demand should not increase the Availability. Only Portion 1 merits qualifying for any kind of incentive.

6. **Conclusion:** Fuel Supply can get disrupted due to (i) “Change in Law” (ii) Force Majeure or (iii) Inefficiency of the Fuel Supplier. Hence, the Regulations may consider appropriate treatment to the generator stake holders for each situation.

## Part V: V. Coal GCV – Concerning

1. The Provisions in this Regulation dealing with the coal GCV are:

### 49. Computation of Gross Calorific Value:

(1) The gross calorific value for computation of energy charges as per Regulation 52 of these regulations shall be done in accordance with GCV on as received basis.

(2) The generating company shall provide to the beneficiaries of the generating station the details in respect of GCV and price of

**fuel** i.e. **domestic coal, imported coal, e-auction coal**, lignite, natural gas, RLNG, liquid fuel etc. **as per the forms** prescribed at **Annexure-I** to these regulations:

Provided that the **details of the weighted average GCV** of the fuel on **as received basis** used for generation during the period, **blending ratio** of the **imported coal with domestic coal, proportion of e-auction coal** shall be **provided separately, along with the bills** of the respective month;

Provided further that **copies of the bills** and **details of parameters of GCV and price of fuel** i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., **details of blending ratio** of the imported coal with domestic coal, proportion of e-auction coal shall also be **displayed on the website of the generating company**.

[Emphasis added]

### **Observations/ Comments/ Suggestions:**

2. The sub-Regulation 49 (1) merits to be re-worded for clarity, as under:

(1) The gross calorific value ('GCV' on as received basis) shall be used for computation of energy charges as per Regulation 52 of these regulations.

3. The Annexure-I mentioned in sub-Reg 49 (2) is not annexed with the Draft Regulation posted on the website and hence can not be commented upon.

4. The first and second Proviso to sub-Reg 49 (2) are good, if followed in letter and spirit. Hence a new third Proviso may be added as under::

“Provided further that in the event the Bills do not provide the information as required to under the sub-Regulation 49 (2) and First Proviso to sub-Regulation 49 (2), the Beneficiary may return the Monthly Bill with remarks: “Not in Compliance of the Regulation 49 of CERC Tariff Regulations, 2019”. Due date of Payment for such returned Bills shall get automatically extended by the period of compliance. “

## **Part V: W. Additional Capitalisation on account of Renovation and Modernisation**

1. The Regulation 26 for Renovation and Modernisation is reproduced:

“26. Additional Capitalisation on account of Renovation and Modernisation:

(1) The generating company or the transmission licensee, as the case may be intending to undertake renovation and modernization (R&M) of the generating station or unit thereof or transmission system or an element thereof for the purpose of extension of life beyond the originally recognised useful life for the purpose of tariff, shall file a petition before the Commission for approval of the proposal with a Detailed Project Report giving complete scope, justification, cost-benefit analysis, estimated life extension from a reference date, financial package, phasing of expenditure, schedule of completion, reference price level, estimated completion cost including foreign exchange component, if any, and any other information considered to be relevant by the generating company or the transmission licensee.

Provided that the generating company or the transmission licensee, as the case may be, making the applications for R&M will not be eligible for Special Allowance under these regulations.

Provided further that, the generating company or the transmission licensee intending to undertake renovation and modernization (R&M) shall be required to obtain the consent of the beneficiaries or the long term customers, as the case may be, for such R&M and submit the same along with the petition.

(2) Where the generating company or the transmission licensee, as the case may be, makes an application for approval of its proposal for renovation and modernisation, approval may be granted after due consideration of reasonableness of the proposed cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis, expected duration of life extension, consent of the beneficiaries or long term customers, if obtained, and such other factors as may be considered relevant by the Commission.

(3) In case of gas/ liquid fuel based open/ combined cycle thermal generating station after 25 years of operation from date of commercial operation, any capital expenditure which has become necessary for renovation of gas turbines/steam turbine or capital expenditure necessary due to obsolescence or non-availability of spares for efficient operation of the stations shall be allowed:

Provided that any expenditure included in the R&M on consumables and cost of components and spares which is generally covered in the O&M expenses during the major

overhaul of gas turbine shall be suitably deducted after due prudence from the R&M expenditure to be allowed.

(4) After completion of the R&M, the generating company or the transmission licensee, as the case may be, shall file a petition for determination of tariff. Expenditure incurred or projected to be incurred and admitted by the Commission after prudence check, and after deducting the accumulated depreciation already recovered from the original project cost, shall form the basis for determination of tariff.

Proviso to Regulation 15: Provided that special allowance in lieu of R&M, where opted in accordance with Regulation 27 of these regulations, shall be recovered separately and shall not be considered for computation of working capital.”

### **Observations/ Comments/ Suggestions:**

2. The Electricity Act 2003 provides for co-existence of ‘Regulated Market’ and ‘Free Market’ – Section 62 providing for determination of tariff and section 63 providing for discovery of Tariff through competition. Section \_\_\_ provides for promoting electricity markets. Therefore, the Commissions are to decide by themselves as to when and how much to distance them-selves from ‘Regulatory Interventions’.
3. The sector has witnessed Distribution companies saddled with PPAs in the excess of their demand. Renewable Energy is also adding to the Surplus. PAT Scheme is another dimension, In such a scenario, the Parties should take the investment decisions for R&M Schemes on their own, instead of seeking Regulatory Support. Parties should formulate the R&M Scheme, evaluate, implement efficiently and harness the fruits of their benefits.

For R&M of Transmission Schemes, CTU should take-over the Assets on expiry of Fair Life and as and when felt necessary, get the R&M schemes prepared by themselves and get executed through competitive bidding.

4. The Financial Institutions/ banks have their own assessment mechanism to evaluate the schemes and monitor them. No Treasury money is being lent as grant or subsidy to such schemes. With no fiscal incentives at stake it is the right time to expose R&M to the free market mechanism. .
5. **Conclusion: Regulations may kindly omit this portion (Regulation 29) sending clear signal to the Consumer that the consumer shall not be burdened with the inefficient R&M decisions or avoidable Risks.**

## **Part V: X. IDC Anomaly for Low Equity Base Assets**

1. The Regulations have restricted equity deployment at 30% (ceiling) in the capital structure. Equity in excess of 30% is treated as Notional Loan. This provision is because the Commission has carried out the sensitivity analysis of Tariff with the equity deployment which showed that the Tariff increases with Equity content.
2. However, with the IDC Calculation methodology, if a project is implemented with low equity content, then its IDC gets restricted to the IDC corresponding to 70:30 resulting in lower prudent capital cost, and the difference is to be absorbed by the return on equity. Thus, the anomaly is that the Regulations discourage low equity projects with disincentive to such projects.
3. **Conclusion: Regulations merit suitably modified.**

## **Part V: Y. Anomaly Hydro Tariff – Special Case – First Year of Operation'**

1. For easy to look upon, assume 'Total Annual Expenses to be recovered' for the first year is Rs. 2400 Crores (i.e Rs. 200 Crores per month). The Design Energy is 4000 GWh. Then its capacity charge is Rs. 100 Crores per month and Energy Charge @ Rs. 3.00 per kWh.
2. The anomaly arises only in the first year, if the actual COD occurs after the monsoon in the lean season. The generation during six months (October to March) of the order of 30% of the annual generation.
3. For the six-month period, it shall be able to earn Rs. 600 Crores towards the Capacity Charge and Rs. 360 Crores towards energy Charge (30% x 4000 GWh x Re 3.00/ kWh) as against requirement of Rs. 600 Crores. Thus, there is under recovery of Rs. 240 Crores for the six-month period.

### **Suggestion/ Observation/ Comment:**

4. This anomaly arises only if the Commercial Operation is achieved in the latter half of the Financial Year.
5. Since Annual Fixed Expenses are determined Financial-Year-wise, this is an irrecoverable or un-adjustable sum. Further, this anomaly is only for the hydro station/ hydro tariff due to water flow variation over the year.
6. **Conclusion: Regulations merit suitably modified. One remedy is that for hydro generating station, the tariff year may commence from the annuity date of the Commercial Operation of that Station.**

## **Part IV: Z. 'Infirm Power'**

### **1. 'Infirm Power' Provisions in this Regulation are:**

"3 (36) 'Infirm Power' means electricity injected into the grid prior to the commercial operation of a unit of the generating station in accordance with Central Electricity

Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009 as amended from time to time or subsequent enactment thereof;

7. Sale of Infirm Power: Supply of infirm power shall be accounted as deviation and shall be paid for from the regional deviation settlement fund accounts in accordance

with the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related matters) Regulations, 2014, as amended from time to time or any subsequent re-enactment thereof:

Provided that any revenue earned by the generating company from supply of infirm power after accounting for the fuel expenses shall be applied in adjusting the capital cost accordingly.

18 (2) (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations; and

Proviso to 34 (2): Provided that in case of new generating station, the cost of fuel for the first financial year shall be considered based on landed cost incurred (taking into account normative transit and handling losses) and gross calorific value of the fuel as per actual weighted average for three months, as used for infirm generation, preceding date of commercial operation for which tariff is to be determined."

### **Observations/ Comments/ Suggestions:**

2. CERC (DSM) Regulation is aimed at encouraging the grid discipline.
3. The Provisions appear to be based on the following assumptions:
  - (a) The Infirm Power is an unavoidable by-product;
  - (b) Prior to Commercial Operation, PPA for Infirm Power is void;
  - (c) The grid extends a facility by allowing indiscipline of UI;
4. However, the Regulations with these Provisions have closed the option to 'Explore Market Driven Forces' to decide the treatment of Infirm Power.

Example 1: Nabinagar TPP (4x 250 MW) after having declared COD of 1<sup>st</sup> Unit, has the choice of operating the 2<sup>nd</sup> Unit (trial run) parallel with the 1<sup>st</sup> Unit. Unit – 1 having been scheduled, can back down keeping a watch on the (Infirm) injection of the Unit – 2, and ramp up as and when Unit -2 is out of the grid.

Thus, the Project (Unit–1 and Unit–2 combined) can minimise deviation – and meet the objective of the DSM Regulation.

Example 2: Nabinagar TPP (4x 250 MW) after having declared COD of 1<sup>st</sup> and 2<sup>nd</sup> Units, is more equipped to manage its deviation.

Example 3: Nabinagar TPP (4x 250 MW) before commencement of trial run of first unit can enter into an Agreement with a third-Party Station for lending it the support for managing infirm power of Unit–1.

**It is clarified that this Firm has used the name of ‘Nabinagar’ only to cite this example and this case. The Firm has no intention against ‘Nabinagar’.**

5. The ramping up and down capability of the generating stations will decide the quantum of support they can lend. Hydro Stations are best suited for this purpose. Taking a cue from the West Bengal experience, Pumped Storage Scheme can be most advantageous proposition. It can store this infirm power for generation during the peak hours.

It is worth noting that infirm power is also planned – the level of generation is pre-planned – the only risk is time of outage for any adverse observation

6. The added advantage, when agreement is between two thermal stations, is the saving of Fuel required for trial run. When such an Agreement is between two hydro stations during lean season, the infirm power shall get value addition of getting sold during peak hours of the day.
7. The Proviso to sub-Regulation 34 (2) assumes (unreal) that ISGS/ CGS shall use the coal for infirm power (trial run) from its linkage mine. ISGS/ CGS are free to use e-auction coal or are allocated coal from other mines. In a regulated Tariff regime, expenditure(s) near COD attract higher IRR for the Equity, thus attracting the company to choose e-auction coal.

It may to the extent, distort the average coal price for the first three months as well as the interest on the working capital for the first Financial Year.

## **8. Conclusion: The Provisions of ‘Infirm Power’ may be got re-drafted.**

## **Part V: AA. Terms of Payment/ Payment Security Mechanism**

1. This Regulation may be considered to include “Terms of Payment” within it.

### **Explanation to support the Suggestion:**

2. This is supported by the Act, concerned portion is reproduced:

Section 79. (Functions of Central Commission): --- (1) The Central Commission shall discharge the following functions, namely:-

(a) to regulate the tariff of generating companies owned or controlled by the Central Government;

-----  
-----

3. The Tariff determination of the Central Generating Station is mandatory.
4. The Tariff includes the “Terms of Payment” and “Payment Security Mechanism” within it.
5. Distribution companies providing “Letter of Credit” is an avoidable over-head in the light of CERC (Regulation of Power) regulation. This burdens the consumer Tariff, for no fault of the consumer.