

**MINUTES OF THE 74th MEETING**  
**OF THE FORUM OF REGULATORS (FOR)**  
**(Through Video Conferencing)**

**Day/Date: Monday, 9th April, 2021**

The meeting was chaired by Shri P.K. Pujari, Chairperson, Central Electricity Regulatory Commission (CERC) and Forum of Regulators (FOR). He welcomed all the members of the Forum to the 74th meeting of the FOR being conducted on virtual mode. The list of participants is at **Appendix-I**.

The Chairperson, FOR/CERC informed the Forum that the meeting has been convened through video conferencing considering the rise in the number of COVID 19 cases across the country.

He welcomed Shri Kumar Sanjay Krishna, Shri Shishir Sinha, Shri R.K. Pachnanda, Shri Sanjay Kumar who had taken charge as Chairpersons of AERC, BERC, HERC and MERC respectively. He also appreciated the contribution of erstwhile Chairpersons who demitted office namely Shri S. K. Negi, BERC, Shri Subhash Chandra Das, AERC; Shri Anand B. Kulkarni, MERC; Shri D S Dhesi, HERC; Shri N. R. Bhattarai SSERC; Shri D.S. Misra, CSERC and Shri Anand Kumar, GERC. He also welcomed Shri Pravas Kumar Singh who recently took charge as Member Law, CERC.

Thereafter, the Forum took up the agenda items for consideration.

**AGENDA ITEM NO.1: CONFIRMATION OF MINUTES OF THE SPECIAL MEETING OF THE FOR**

The Forum considered and endorsed the minutes of the Special Meeting of FOR which was held on 27<sup>th</sup> February 2021 where there was a discussion on the Electricity Act (Amendment) Bill.

**AGENDA ITEM NO.2: ACCOUNTS RELATED ISSUES**

**a) Budget of FOR for FY 2021-22**

Deputy Chief (RA), CERC apprised the salient features of the FOR budget, including the projected income and expenditure. The main points of discussion were as below:

(i) The Members were apprised regarding the issue of applicability of TDS on the grant being released to FOR. Ministry of Power (MoP) has classified FOR under the Object Head, viz. "Professional Fees", due to which, the grant is subject to TDS under section 194J of the IT Act, 1961. It was informed that FOR Secretariat is already pursuing with MoP regarding the re-classification of its Object Head, viz. from "Professional Fees" to some other head of expenditure as was being done earlier. The Forum agreed and maintained that TDS cannot be deducted on a grant to FOR and advised FOR Secretariat to pursue with MoP for change of head of account and release of Plan funds without the deduction of TDS.

(ii) The costs related to capacity building programs held through virtual mode were discussed. After discussion, it was decided to constitute a Working Group comprising Chairpersons of West Bengal, Odisha, Uttar Pradesh and Kerala ERC who would examine and decide on the academic institutions to be selected for conducting the programs giving due importance to rationalization of expenses and value to the programs . FOR Secretariat would provide assistance to the Working Group.

(iii) The costs for development of E Court web tool were also discussed. Deputy Chief (RA) apprised that NIC has indicated that the costs might increase by another 25%-30% because the earlier estimated cost of Rs.62 lakh was as per costs in 2018. Since then, manpower costs have increased. Further, if an e court tool is to be developed for each SERC separately, the costs would increase substantially. After discussion, the Members felt that after the estimated cost of NIC is received, further analysis may be done before taking any final decision in this regard. Some members informed that they have already taken initiative on their own by engaging IT personnel empaneled by NIC and that this has not only served their specific needs but have also proved to be cost effective. After discussion, it was decided that the individual States can also go in for development of e court software on their own as per their requirement. Accordingly, considering the projected budget under the heads, viz. "Training" and "e-Court Development" as provisional, the budget was approved.

**b) Appointment of auditor for the F.Y. 2020-2021**

The Members approved the re-appointment of M/s AVAN & Associates, Chartered Accountants, New Delhi (empanelled with the C&AG of India) as Auditors of FOR for the F.Y. 2020-2021 (i.e. 2nd year of their tenure).

**c) Appointment of tax consultant for filing the income tax returns and tax audit report for the F.Y. 2020-2021**

The Members approved the re-appointment of M/s R.K. Raman & Co., Chartered

Accountant, New Delhi as the tax consultant to file the income tax return and tax audit report of FOR for the F.Y. 2020-2021 (i.e. 2nd year of their tenure).

**d) Appointment of consultant for filing the GST returns for the F.Y. 2021-2022**

The Members were apprised regarding the withdrawal request of M/s MBR & Co. LLP, Chartered Accountants, New Delhi engaged for filing GST returns with effect from the F.Y. 2021-2022, due to their pre-occupation with other work. Therefore, FOR Secretariat would be initiating the process of sending quotations to Chartered Accountant firms (on its panel/new firms) for filing GST returns and the consultant offering the lowest quotation (i.e. L1), would be selected on a retainership basis.

The Members approved the same.

**e) Status of penalty matter of FOR for the A.Y. 2016-2017 (F.Y 2015-2016)**

The Members were apprised that during the 71st FOR meeting held on 11th May, 2020, the Members approved the settlement of penalty of Rs.21.70 lakh imposed on FOR for the A.Y. 2016-17 (viz. F.Y. 2015-16), under the “Vivad Se Vishwas Scheme, 2020”, by paying 25% of the penalty amount of Rs.21.70 lakh, i.e. Rs.5,42,500. Accordingly, FOR Secretariat duly paid the aforesaid penalty amount and necessary online forms were also filed with the Principal Commissioner of Income Tax-12, Delhi. The final order on the settlement of the penalty is awaited from the Principal Commissioner of Income Tax-12, Delhi.

The Members noted the same.

**f) Accounts related “Resolutions”**

The following accounts related Resolutions were duly approved by the Members:

- i) Resolution for applying for net banking facilities with Union Bank of India (erstwhile Corporation Bank) for viewing bank statements and payment of statutory dues;
- ii) Resolution for withdrawal/addition of Authorized Signatory(s) in the bank accounts of FOR.

**AGENDA ITEM NO.3: REPORT OF FOR WORKING GROUP ON “ANALYSIS OF FACTORS IMPACTING RETAIL TARIFF AND MEASURES TO ADDRESS THEM.”**

The Members were informed that the FOR Working Group on “Factors affecting retail tariff and ways to address them” constituted post the Special meeting of the Forum of 16.10.2020 was headed by the Chairperson, Punjab SERC with Chairpersons of Gujarat ERC, West Bengal ERC, Odisha ERC, Tamil Nadu ERC, JERC ( Goa & UTs) as Members and Chief

(RA), CERC as the Convener. After briefing on the terms of reference of the WG, a short presentation on the report of the WG (**Annexure-1**) was made.

On conclusion of the presentation, Chairperson, UPERC appreciated the recommendations in the report, especially the recommendation that depreciation beyond loan repayment should be used to reduce the equity base. He opined that the profitability or viability of DISCOMs cannot be increased only by increasing ARR and that effort should be made to reduce the ACoS. He suggested that this report should be shared with all the stakeholders and beneficiaries of the power sector, especially the DISCOMs in order to apprise them of the prevailing conditions.

Chairperson DERC observed that AT&C losses are significantly dependent on location/geographical factors and as such a uniform trajectory of reduction of losses cannot be mandated.

Member, CERC, Shri I.S.Jha, while appreciating the report, pointed out that planning for transmission was done considering all aspects and not on standalone basis – for instance, demand estimation, generation capacity addition forecast and requirement of commensurate transmission assets. He observed that while transmission systems were created according to the plans, generation did not come up as planned due to demand not materializing and therefore, describing transmission planning “erroneous” is not entirely correct. He expressed reservation over the recommendation regarding differential RoE for different segments of the electricity value chain. Chairperson UPERC stated that it is due to different risks associated with different segments of the sector. Chairperson DERC mentioned that RoE is akin to risk premium and that since risk is lower in transmission projects compared to that in other segments such as distribution business, there is a case for a lower RoE for transmission business.

Chairperson, WBERC explained that the report outlines recommendations under various heads. While some are external to the sector, a number of them can be taken up by the Regulators. Talking about transmission planning, he endorsed the views of Member, CERC that transmission planning follows generation planning.

Chairperson, WBERC suggested that there should be a virtual seminar on this critical report with various stakeholders in the sector and FOR should consider formulating Model Regulations on the issues raised in the report. He reiterated that tariff needs to be reduced and the issue of stranded assets should be taken up with the Government of India.

Chairperson, OERC highlighted that except for Bihar and Jharkhand, where STU charges have increased at a higher rate, the CTU charges have increased at a much higher rate than STU charges. He observed that the demand projections of DISCOMs are fairly accurate and both STU and CTU consider their demand forecast and therefore, disconnect in CTU and STU charges should not occur. He endorsed the views of Chairperson, WBERC that the issue of stranded assets should not be taken up as the end consumer pays for the fixed costs of stranded assets which is in the order of 20% of the retail tariff. He suggested that the loss of GCV of coal and railway freight charges should also be taken up with the respective Ministries.

Member, CERC, Shri Arun Goyal observed that the report has focused largely on the affordability aspect, but at the same time the reliability aspect should not be ignored in the process, as the consumer needs both reliable as well as affordable power. Secondly, he suggested that the increase in PPC vis-à-vis inflation and impact of increase in the salaries of Government employees should also be studied.

Chairperson, CERC/FOR concluded that this comprehensive report may be circulated to the members of FOR who can send their final comments within 10 days, following which the Forum may meet to discuss this report exclusively. He added that the stakeholders can be consulted at a later stage, once the Report is accepted by FOR.

#### **AGENDA ITEM NO.4: REFERENCES FROM SERCs**

##### **i) Rules issued by the Ministry of Power under the Electricity Act, 2003 – Reference from Kerala SERC**

Chairperson KSERC, referring to the Rules issued by the Ministry of Power highlighted that, even in the past, such directions have been issued by the Ministry of Power to the Regulatory Commissions. He stated that such letters infringe upon the independence of the Regulatory Commissions. Chairperson, KSERC further stated that Rules are being framed by the Ministry of Power on several subjects affecting the power of the Regulatory Commissions.

Chairperson JERC (Goa & UTs) added that the directive of the MoP/MNRE for complying with RPO norms by all licensees is not implementable due to embargo on REC trading since July 2020. He also stated that fungibility of Solar and Non Solar RPO is not being considered by the Ministry. Chairperson, KSERC observed that the orders issued by the Regulatory Commissions are quasi-judicial in nature and cannot be overturned by an executive orders of the Government.

Chairperson APERC referred to an APTEL judgment in Appeal 103 of 2012 in the matter of Maruti Suzuki India Ltd and HERC wherein it was held, based on previous judgments of the Hon'ble Supreme Court, that the Commissions are only guided by the policies framed by the Central Government.

The Forum observed that SERCs may act on letters of MoP/MNRE in accordance with their statutory powers.

## **ii) Long-term trajectory of the RPO (Solar RPO & HPO) – Reference from West Bengal SERC**

Chairperson, WBERC informed that the Ministry of Power has segregated total RPO into two broad categories namely Solar RPO and Non-Solar RPO. The Non-Solar RPO has again been segregated into Hydro Power Obligation (HPO) and other Non-Solar RPO. He suggested that solar RPO should be merged with other non-solar RPO (excluding HPO) so that the utilities have the liberty to choose their portfolio of RE power based on economics and availability of renewable power and consumer interest. He also raised the issue of HPO compliance and informed that hardly any capacity addition in hydro is taking place and thus, utilities may find it difficult to procure necessary hydropower to fulfill their HPO. Chairperson, OERC stated that MNRE may be informed that enough hydro power capacity is not coming up.

After discussions, the Forum agreed to the idea of RPO fungibility and agreed that a separate solar RPO is not relevant at present given the decline in the prices of solar power.

## **III) Model Regulations for addressing the issue of import of power by DISCOMS from captive generators located within/outside the State through open access – Reference from West Bengal SERC**

Chairperson, WBERC informed the Forum that the industrial and other big consumers of DISCOMS often to procure power from their captive generator(s) located either within the State or outside the State. The question therefore is how to verify the status of captive generator(s). He opined that the SLDCs and RLDCs are the most appropriate agencies to verify the generation from CPPs. He therefore suggested that the task of verifying 51% threshold consumption should be entrusted on these agencies (SLDCs/RLDCs). Verification of 26% threshold for ownership may be done by the DISCOM. In this regard, he suggested that the Forum may come out with model regulations.

Chairperson, OERC and TERC also suggested that the Forum may frame model regulations regarding sale of surplus power by DISCOM to captive consumers.

After discussion, the Forum decided that individual SERCs may take appropriate decision in accordance to their respective regulations.

#### **IV) Surrender of share and retiring of old and uneconomical NTPC gas power stations – Reference from Punjab SERC**

Chairperson, PSERC, stated that in the backdrop of the guidelines issued by the Ministry of Power dated 22.03.2021 enabling the discoms to exit from the PPA after completion of the term of the PPA, the issue stand resolved.

#### **V) Extension of financial assistance under different schemes of Government of India to privatized DISCOMS – Reference from Odisha SERC**

Chairperson, OERC, stated that as per the revamped Distribution Sector Scheme announced by the Government of India, financial assistance shall be limited to the State-owned DISCOMs only. In that event, States such as Odisha which has privatized the DISCOMs as part of the Reform agenda shall be in a disadvantaged position. He therefore suggested that such Government of India schemes should also be made available to private discoms.

The Forum felt that all schemes should be designed with the interest of the end consumers in mind.

### **CONCLUSION**

The Forum placed on record its appreciation for the valuable contributions made by Chairperson, PSERC and Chairperson, RERC who would be demitting their office.

Secretary, FOR/CERC thanked all the members for their participation and the officials and staff of the FOR Secretariat for their efforts in organizing the virtual meeting.

The meeting ended with a vote of thanks to the Chair.

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**LIST OF PARTICIPANTS OF THE 74<sup>TH</sup> MEETING**

**OF**

**FORUM OF REGULATORS ( FOR )**

**HELD ON FRIDAY, THE 09<sup>TH</sup> APRIL, 2021.**

<b>S. No.</b>	<b>NAME</b>	<b>ERC</b>
01.	Shri P.K. Pujari Chairperson	CERC / FOR – in Chair.
02.	Justice (Shri) C.V. Nagarjuna Reddy Chairperson	APERC
03.	Shri Kumar Sanjay Krishna Chairperson	AERC
04.	Shri Shishir Sinha Chairperson	BERC
05.	Justice (Shri) Satyendra Singh Chauhan Chairperson	DERC
06.	Shri D.K. Sharma Chairperson	HPERC
07.	Shri M.K. Goel Chairperson	JERC (State of Goa & UTs)
08.	Shri Lokesh Dutt Jha Chairperson	JERC for UTs of J&K and Ladakh
09.	Shri Lalchharliana Pachuau Chairperson	JERC for M & M
10.	Shri Shambhu Dayal Meena Chairperson	KERC
11.	Shri Preman Dinaraj Chairperson	KSERC
12.	Shri S.P.S. Parihar Chairperson	MPERC
13.	Shri Sanjay Kumar Chairperson	MERC
14.	Shri P. W. Ingty Chairperson	MSERC
15.	Shri U.N. Behera Chairperson	OERC
16.	Ms. Kusumjit Sidhu Chairperson	PSERC
17.	Shri M. Chandrasekar Chairperson	TNERC
18.	Shri T. Sriranga Rao Chairperson	TSERC
19.	Shri D. Radhakrishna Chairperson	TERC



20.	Shri Raj Pratap Singh Chairperson	UPERC
21.	Shri D.P. Gairola Officiating Chairperson/Member (Law)	UERC
22.	Shri Sutirtha Bhattacharya Chairperson	WBERC
23.	Shri Arun Kumar Sharma Member	CSERC
24.	Shri Naresh Sardana Member	HERC
25.	Shri S.C. Dinkar Member	RERC
26.	Shri Sanoj Kumar Jha Secretary	CERC
27.	Dr. Sushanta K. Chatterjee Chief (RA)	CERC
<b>SPECIAL INVITEES</b>		
28.	Shri Indu Shekhar Jha Member	CERC
29.	Shri Arun Goyal Member	CERC
30.	Shri Pravas Kumar Singh Member	CERC
31.	Shri Vijay Menghani Chief (Engg.)	CERC
32.	Ms Rashmi Somasekharan Nair Dy Chief (RA)	CERC
33.	Shri Ankit Gupta Research Officer	FOR



# **Analysis of Factors Impacting Retail Tariff**

Sectt- Forum of Regulators



# Terms of reference

- a) Analysis of various components of power purchase cost and their impact on retail tariff.
- b) Analysis of external factors (external to electricity sector) and internal factors (across the value chain of generation, transmission and distribution) impacting retail tariff.
- c) Suggest measures for addressing the issues arising out of the analysis from (a) & (b) above.
- d) Any other matter related and incidental to the above

# Snapshot

- ▶ Analysis of 12 States
- ▶ Factors analysed:
  - ▶ Power Purchase cost
    - ▶ Fuel cost
    - ▶ Railway freight charges
    - ▶ Distribution losses, clean energy cess etc.
  - ▶ Transmission charges
    - ▶ Inter-State transmission charges
    - ▶ Intra-State transmission charges
  - ▶ Fixed Cost related factors
    - ▶ O&M Expenses
    - ▶ RoE
    - ▶ Depreciation

Cost Header	Contribution
Power Purchase Cost (PPC)	67-78%
Transmission charges	9.5-13%
O&M Expenses	6-21%



# **Analysis**

# Power Purchase Cost [1/2]

- ▶ Largest contributor in ARR
- ▶ Sample station analysis for contribution of different components:
  - ▶ Coal price: 25%
  - ▶ Rail freight: 41%
  - ▶ Transportation charges: 11%
  - ▶ Clean energy cess: 11%
  - ▶ Others: 12%
- ▶ Clean Energy Cess
  - ▶ Rs. 50/tonne (June, 2010) → Rs. 400/tonne (March, 2016)
  - ▶ Impact on power sector: worth Rs. 25000 crores in the last 3 years
  - ▶ Reduction of Rs. 100/tonne could result in a saving of ~6 paise/unit (~3% of ACoS); reduction of Rs. 50/tonne → ~3 paise/unit saved



# Power Purchase Cost [2/2]

- ▶ Impact of GCV loss
  - ▶ Impact on overall energy charges
  - ▶ Grade slippage between 'as billed' and 'as received' → GCV loss ~600kcal/kg
  - ▶ Every 100kcal/kg saving in GCV → ~3% saving in energy charge
- ▶ Coal prices
  - ▶ Prices of G11-G14 increased in FY 2016, by 13-18%
  - ▶ Increase higher than estimated increase w.r.t. wt. avg. of WPI and CPI, by about 28%
- ▶ Railway freight charges
  - ▶ Freight charges increased twice in 2018, for coal and coke – 21% in January, 2018 and 9% in November, 2018
  - ▶ 30% higher than estimated increase w.r.t. wt. avg. of WPI and CPI



# Transmission Charges

- ▶ Huge investments in Inter-State transmission over the last decade
- ▶ Annual Transmission Charges (ATC) for inter-State transmission: Rs. 9000 crores (FY 2011-12) → Rs. 39000 crores (FY 2019-20)  $\equiv$  21% CAGR
- ▶ Per unit transmission charges over inter-State transmission system: 15% CAGR over FY 2011-12 to FY 2019-20
- ▶ Competition in transmission service procurement
  - ▶ decrease in overall costs
  - ▶ Difference in levelised cost 45-51% higher than that on cost plus basis, with competitive bidding





# Fixed cost related factors [1/2]

- ▶ Return on Equity (RoE)
  - ▶ Post-tax RoE: 14-16%
  - ▶ Prevailing cost of debt: low lending rates for a while
  - ▶ Element of risk premium
  - ▶ Need for reconsidering RoE based on the prime lending rate (PLR) and G-Sec rate
  - ▶ Study of 12 States
    - ▶ Reduction of RoE from 15.5% to 14% could result in 2 paise/unit reduction in retail tariff
    - ▶ Further reduction of RoE to 12% → 7 paise/unit reduction in retail tariff

# Fixed cost related factors [2/2]

- ▶ Depreciation Cost
  - ▶ Analysis of other sector regulatory practices
  - ▶ Contribution of Depreciation cost on overall ARR
    - ▶ If loan repayment period increased from 12 to 15 years, ACoS decreases by 8 paise/unit of retail tariff
    - ▶ If depreciation rate reduced to 4.3% (15 years loan repayment period to repay 65% of the capital cost), retail tariff reduction by ~10 paise/unit
- ▶ Internal factors
  - ▶ O&M Expenses
    - ▶ Lie between 6-12% for FY 2020-21 (for the select 12 States analysed)
    - ▶ Lie within 10-16% for the generators in the selected States
  - ▶ Interest and Finance Charges: between 1-9%
  - ▶ AT&C Losses: significant scope of reduction through better reactive power management (e.g. Tamil Nadu)
  - ▶ Potential savings through distribution loss reduction



# Other external factors

- ▶ Under-utilisation of assets
  - ▶ Transmission assets: utilisation of inter-State transmission assets not commensurate with the huge investments
  - ▶ Generation assets: the excess FC paid by end consumers for stranded assets, receiving no benefits whatsoever is in the order of Rs. 1.345/unit (on the basis of the analysis of the 12 sample states)
- ▶ Compliance of environmental norms
  - ▶ FGD impact: ~24 paise/unit (considering benchmark capital cost provided by CEA, and operational and financial norms provided by CERC)
- ▶ Retiring old and inefficient plants (over 30 years of age) would → 4-23% reduction in energy charges



# **Recommendations**



# External Factors [1/2]

- ▶ Coal
  - ▶ Independent regulator required
  - ▶ Electricity regulators to monitor and regulate SHR and GCV of coal-based power plants
  - ▶ GCV not to be allowed on 'as fired', but on 'as received' basis or 'as billed' basis, plus margin of errors (due to transportation and other losses)
  - ▶ Third party assessment/measurement of GCV
  - ▶ Evolving a proper sampling and measurement mechanism to control the grade slippage and GCV losses
  - ▶ Full compensation by the coal company for surface moisture in coal (no heat value)
  - ▶ Ministry of Power and Ministry of Coal to find a solution to the issue of grade slippage and losses due to moisture content



# External Factors [2/2]

- ▶ Railway freight
  - ▶ Should be brought under an independent regulatory body (monopoly; still unregulated)
  - ▶ Regulated RoE for railways
  - ▶ Central Government may consider subsidizing railway freight for coal for a distance beyond 750 km
- ▶ Clean Energy Cess
  - ▶ Increasing investment in renewable → review the rationale for the cess
  - ▶ Proceeds from the cess to be ploughed back to the electricity sector to mitigate incremental cost on account of new environmental norms, based on the contribution made by each State
- ▶ New Environmental Norms
  - ▶ Increasing cost per unit of energy
  - ▶ This increase in cost to be compensated from the clean energy cess
  - ▶ The energy cess to be used to reduce retail tariff impact of FGD installation in thermal plants



# Internal Factors [1/5]

- ▶ High Transmission Costs
  - ▶ Huge investment in inter-state transmission but utilization of the assets not commensurate with the investment;
    - ▶ reliability of supply and market access have definitely increased due to construction of transmission systems but the disconnect in planning is obvious
  - ▶ Retail electricity consumers to be compensated for the monetary implications due to under-utilisation of transmission assets
  - ▶ Tariff Policy states, all new transmission projects including State-owned projects, costing above a normative threshold limit, should be determined on the basis of a competitive bidding process;
    - ▶ all SERCs should decide the threshold limit above which projects would be selected through TBCB
  - ▶ A special meeting of FoR suggested for discussing the issues on transmission assets
- ▶ Stranded generation assets – extremely expensive old gas plants, FC paid without utilisation (in the order of Rs. 1.34/unit)
  - ▶ Government should extend help to DISCOMs to meet the FC of the PPAs associated with stranded assets
  - ▶ Burden of such costs to be shared by the Centre and State in 60:40 share



# Internal Factors [2/5]

- ▶ RoE for G/T/D Companies to be more realistic and at par with interest rates
  - ▶ With low lending rates and lower risks, RoE should be reduced accordingly
  - ▶ RoE for transmission companies capped at 13%
  - ▶ RoE for generation and transmission linked to lending rate plus risk premium, subject to a cap of 14% for generation and 13% for transmission
  - ▶ Income tax reimbursement limited to the RoE component only
  - ▶ RoE for Distribution, a risky business, to be fixed at 14.5%
  - ▶ RoE of distribution companies should also be linked to performance (i.e. AT&C loss level) of the utilities; RoE of 14.5% should be allowed only if the AT&C losses of Distribution utility is below 15%, failing which the RoE should be reduced to 14%
- ▶ Depreciation
  - ▶ Capped, and the period of initial higher depreciation rate extended to 15 years from 12 years
  - ▶ Depreciation Rate: 4.3% for the first 15 years, instead of ~5.28% for the first 12 years; remaining depreciation recovered during the balance useful life
  - ▶ Accumulated depreciation, over and above debt repayment, should be used to reduce the equity base for RoE after debt repayment is over.





# Internal Factors [3/5]

- ▶ Growing RE Share
  - ▶ Large RE segment: hybrid renewable (combination of wind and solar), round-the-clock (RTC) schedulable power and renewable with energy storage should be encouraged → better utilization of transmission assets
  - ▶ Focus, in future, on distributed generation (preferably in agriculture segment) – with no requirement of transmission infrastructure can help reduce cost
  - ▶ Expenditure to meet statutory requirements (e.g. towards meeting environmental norms) should not be passed on completely to the consumers; instead, Clean Energy Cess utilized
- ▶ Right Energy Mix and Combination of LT/MT/ST PPAs
  - ▶ DISCOMs willing to exit from PPAs of old plants that have outlived their life or are very costly, should not be tied to BPSA
  - ▶ 25 years life of PPAs for new projects contracted through competitive bidding – too long; shorter duration PPAs with exit clause should be promoted
  - ▶ To be ensured that the exit clause is not very stringent



# Internal Factors [4/5]

- ▶ Market-based procurement for Cost Optimisation
  - ▶ Significant scope for reduction of power purchase cost on following merit order dispatch (MoD) strictly and using power market and other platforms for PPC optimisation
  - ▶ Needs to be followed by all the States
  - ▶ Security Constrained Economic Dispatch (SCED) framework may be adopted in States for cost optimisation
  - ▶ SLDCs should be given independent status; their responsibility to ensure merit order dispatch of electricity on day-ahead and real-time basis; Merit Order must be prepared by SLDC every month based on the actual fuel prices of last month
- ▶ Reduced Trading Margin
  - ▶ Trading margin, as stipulated by CERC, to be made more equitable, capped at 2 paise/unit



# Internal Factors [5/5]

- ▶ Efficiency at Distribution level
  - ▶ Reduction of AT&C losses by better reactive power management (e.g. Tamil Nadu)
  - ▶ SERCs to specify a long-term trajectory for loss reduction and ensure that the trajectory is strictly adhered by DISCOMs
  - ▶ Common regulation to curtail the losses of DISCOMs – losses above a pre-specified limit not to be allowed; the gains accruing from over achievement of loss reduction targets to be shared with consumers
- ▶ Waiver of Water Charges for Hydro Projects
  - ▶ Matter may be taken up by FOR and MoP with the respective State Governments
- ▶ Other suggestions
  - ▶ More stringent CERC norms for O&M Expenses
  - ▶ Review of IoWC norms by CERC, heeding the current realities of decreasing level of PLF, resulting in reduced fuel stock requirement, etc.



**Thank you**