

**BEFORE THE HARYANA ELECTRICITY REGULATORY COMMISSION
BAYS No. 33-36, SECTOR-4, PANCHKULA- 134112, HARYANA**

Date of Hearing : 23.12.2021

Date of Order : 31.01.2022

Petition No 45 of 2021

IN THE MATTER OF:

2nd Amendment in the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2019.

Interveners present:

1. Sh. T.L. Satyaprakash, IAS, MD HVPNL
2. Sh. Randeep Singh, Chief Engineer HPPC
3. Sh. Amit Kapur, Advocate, Association of Power Producers
4. Sh. Abdul Ishad Khan, JSW Energy Limited
5. Sh. Jyoti Parkash Panda, JSW Energy Limited
6. Sh. Praful Katiyar, JSW Energy Limited
7. Sh. Aman Anand, Advocate, JSW Energy Limited
8. Sh. Tabrez Malawat, Advocate, HPGCL
9. Sh. Manoj Kumar Tanwar, Sneha Kinetic Power Project Pvt. Limited
10. Sh. Surendernath Ch., Sneha Kinetic Power Project Pvt. Limited
11. Sh. Rajesh Sharma, Gati infrastructure Pvt. Limited

Quorum

**Shri R.K. Pachnanda
Shri Naresh Sardana**

**Chairman
Member**

ORDER

Statement of Objects and Reasons

1. The Haryana Electricity Regulatory Commission, in exercise of the powers conferred on it by section 181 of the Electricity Act 2003 (Act 36 of 2003) and all other powers enabling it in this behalf and after previous publication, had notified Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.
2. In accordance with clause 61(f) of the Electricity Act 2003, the Commission, after following the process prescribed for the purpose, framed and notified the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.

3. The said Regulations was amended vide notification dated 17.11.2016 and the first control period was extended to cover the period from 1.04.2014 to 31.03.2018. Again, there was a need to review / re-enact the MYT Regulations for the next control period in the light of experience gained while dealing with various issues that had come up before the Commission. Resultantly, the Commission notified the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2019 on 31st October 2019. The first amendment to the regulation was notified on 25th November 2019.
4. The Commission received a petition under Regulation 83 of the HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2019 and on all other enabling provisions in this behalf, seeking amendment of Regulations 15.3, 20.1 & 25 of the MYT Regulations, 2019. Further, it was decided during FOR meeting to review the ROE.
5. Based on the Commission's order dated 13.09.2021 of said case and decision in FOR draft consultation paper for revisiting the MYT Regulations, 2019, including but not limited to the issue raised in the present petition was framed for inviting comments/ suggestions /objections from the stakeholders including power utilities/consumers likely to be affected by these Regulations as well as any other interested parties/persons.

Accordingly, the Commission prepared a draft Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, (2nd Amendment), 2021. The draft was made available in the public domain for stakeholders' consultation.

Public Proceedings

1. The draft Regulation was hosted on the website of the Commission for inviting comments/objections from the stakeholders/general public and a notice to this effect was published in two newspapers having wide circulation in Haryana. The said notice was published in the Indian Express (English) and Amar Ujala (Hindi) on 27.11.2021.
2. In response to the public notice dated 27.11.2021 issued by the Commission for inviting comments/objections from the stakeholders/general public, the following interveners filed their comments / objections / suggestions :-
 - i) Connect Solar
 - ii) Indian Energy Exchange Limited

- iii) Gati Infrastructure Pvt. Ltd (GIPL)
- iv) Sneha Kinetic Power Project Pvt. Ltd.
- v) Teesta Urja Ltd
- vi) Association of Power Producers
- vii) Associated Chambers of Commerce and Industry of India
- viii) Haryana Vidyut Prasaran Nigam Limited (HVPNL)
- ix) JSW Energy Limited
- x) GMR
- xi) Haryana Power Generation Corporation Limited (HPGCL).

3. The objections/comments received from the aforesaid interveners are briefly set out hereunder:-

3.1 Comments by Connect Solar (Memo No. CS/2021-22/HERC-001 dated 13.12.2021)

That the biggest bottle neck is the arbitrary imposed “Reliable Charges” being proposed by the distribution company (“DISCOM”) and passed by this Hon’ble Commission based on the calculations and breakup as provided by the state utilities.

Background of Reliability Charges as per this Hon’ble Commission:

It is a settled law that there cannot be any duty imposed without authority of law. Reliability Charge does not find any place in the Electricity Act, 2003 (“Act”). The Supreme Court in catena of judgments has pronounced that imposition of any duties without authority of the law is unlawful.

Various State Commissions have imposed this duty earlier at the time when the relevant state was struggling to match generation with demand. This Hon’ble Commission had also followed the same rationale while approving imposition vide its order dated 14.03.2013 in Case No. HERC/PRO-26 of 2012. DISCOM had proposed imposition when the state had significant deficit of availability of power as compared to the demand. This Hon’ble Commission approved a Reliability/ Additional Charge of Rs.1.50 per KWh for availing uninterrupted power to the consumers till such time the state of Haryana becomes power surplus.

Further other states like state of Tamil Nadu, Maharashtra, Andhra Pradesh define applicability of reliability charge either for uninterrupted power to be provided to the consumers till there is deficit of power in the state or for any additional requirement of the consumer or if the consumer wishes “opt out” of power purchase during peak period from the state DISCOMs.

Neither is Haryana a power deficit state, where to cater uninterrupted power requirement of the consumer from utility the DISCOMs have to buy power at additional cost, nor is the consumer opting out of the peak period power purchase from the DISCOMs. Further, by availing open access from solar

/ renewable, the consumer is not increasing its power requirement / demand.

Therefore, the present imposition of reliability charge does not meet any tests required to be present for imposition.

Further, if it is perceived that the consumers demand is increasing on account of availing open access it is humbly submitted that:-

In this regard the comments of the transmission company of the state of Madhya Pradesh "MPTRANSCO" states that:-

(3) if a retail consumer is already connected to the network and drawing power from the distribution network, then availing partial open access by him cannot mean a sudden artificial increase in his power demand.

(4) if the partial open access consumer, already connected to the network as a retail consumer, maintains or gives an undertaking to maintain his power drawl within the contract demand for the H.T. connection, then open access cannot be denied to the him on grounds of network congestion.

(Ref: MPPTCL Letter No. 04-02/P&D/LTOA/JK Mineral/2557 Dated: 08.09.2016).

Further, the order of denial of open access on ground of congestion of network at the drawl end by the Hon'ble MPERC was set aside by the Hon'ble APTEL vide its order in Appeal No. 21 of 2018 dated 19th March 2019 in the matter of KJ Minerals Vs. MPTRANSCO, MPPKVCL and M/s. Indore Treasure Island Pvt. Ltd.

Thus, the Reliability Charges on Solar Power (generation/consumption) shall be withdrawn from immediate effect.

However, even for a moment if we go by the verdict of the Hon'ble Commission that reliability charge needs to be imposed on the consumption / generation of power from renewable energy sources under open access, it is humbly submitted that there is an error in methodology of the calculation of reliability charges.

Connect Solar feel that it is again one of the regulatory side doors being used by the state utilities of Haryana to ensure their monopolies in the sector by discouraging i) open access and ii) development of renewable energy in the state of Haryana.

Following merits / submission are being made in this regard:-

1. Magic Number 1.50:

It is humbly submitted that bare reading of the order of this Hon'ble Commission reflect that this charge has been imposed as a compensatory in nature. It is humbly submitted that the compensation should be provided to the extent of the damages and the person claiming compensation cannot make profit from his/its loss.

Formulae submitted by DISCOM appear to suggest that they relied on magic number of 1.50 without any rationale and any justification.

Why we call number 1.50 as magic number because in the year 2013-14 the DISCOMs got approved a tariff of Rs. 1.50 as reliability charges in the state of Haryana which was derived and approved for an altogether different purpose which was for providing “uninterrupted power to the consumers of the state of Haryana when state was power deficit”.

It was fully known by the state utilities that if they propose the same number, same up to 1st decimal digit they will get it approved from this Hon’ble commission inspite of using any unapproved formula and base value considered for the calculation of the same without much hassle.

Further, it was also well understood by the state utilities that this is the number which is the factor of viability and non-viability of availing power under open access/ captive mode in the state of Haryana.

It seems that the state utilities have done reverse calculations to arrive this number.

2. It has been submitted that no detailed study and rational basis taken and submitted: -

Electricity Act has recognized certain duties/taxes to be imposed to be named as reliability charges. Further DISCOMs arbitrarily proposed to recover all its expenses from the renewable energy consumer in the state.

The following are the factors / parameters considered by the state utilities:

- a) Total balancing charges for CGSs coal and Gas based stations.
- b) Total balancing charges for Haryana Coal Stations.
- c) Impact of DSM charges
- d) Impact on tariff for Haryana DISCOMs for backing down Coal Generation.
- e) Stand by charges
- f) Extra Transmission charges.

The bare reading of charges mentioned hereinabove reflect that these charges have no nexus whatsoever with the renewable energy consumer. Therefore, the present charges are illegal.

The ibid intervener has further submitted as under:

a) Total balancing charges for CGSs coal, Gas based and Haryana Coal stations:

It is important to put on records the performance of Haryana generating stations for period before introduction of RE from solar in the system and after the same.

Historical PLF of state Based Generators

Year	APCPL	CLP	FGPS	HPGCL		
				PTPS (7&8)	DCRTPP	RGTPP

2017-18	60.03	64.97	22.99	47.15	65.60	44.53
2018-19	56.51	60.18	16.51	65.71	63.20	36.65
2019-20	28.96	50.52	14.92	44.92	52.01	21.97

In regard to the PLF of PTPS, the Hon'ble Commission has already found that

The average PLF for last 3 years i.e. FY 2017-18, FY 2019-20 & FY 2020-21 of PTPS 6 and PTPS 7, PTPS 8 is 13%, 53% and 53% approximately and in the first half of FY 2020-21, their PLF is 5.63%, 22.62% and 24.29% respectively. PLF of WYC is 54.74% in FY 2019-20 and 61.06.06 in first half of FY 2020-21.

It is also interesting to bring on record the statement given by the PTPS where it states that:

In regard to PLF for Unit 1-4 of Panipat TPS was that the State Commission has ignored the past performance of these units and fixed the target PLF which is not achievable. The State Commission has fixed target PLF for these units at 70% against the claim of 59.88% of the Appellant".

In the same declaration the HPGCL also states that:

HPGCL has proposed PLFs of 52.59%, 59.34%, 69.95% & 64.86% for PTPS units 1 to 4 respectively (overall 59.88%) based on the average of actual PLF during the preceding three complete years of operation.

Further, HPGCL has admitted that the poor performance of these units can be attributed to the lack of R&M activity.

It has also been alleged by the HPGCL that the state DISCOMs do not schedule power from the older plants as their cost of generation is high.

HPGCL in its submission's states that:-

"Further, these units are not scheduled because of their higher energy charges as compared to the other competitive sources of power available to the Discoms".

"Unit 5&6, PTPS Panipat are the old units of HPGCL and are having low PLF on account non-scheduling due to high cost of generation. Unit-5 has already completed its useful life of 25 Years in 2014 & no FGD is proposed in this unit. Unit-6 shall also complete its useful life of 25 years by 2026".

HPGCL in its document has also informed that the Capital Overhauling of one Unit of RGTPS, of Chinese origin (Sanghai Elec. Corp) was delayed due to force majeure events. Further, in the light of policy shift to "Atamnirbhar Bharat", the work for FGD has been re-tendered.

It is pertinent to mention here that HPGCL has submitted to the Hon'ble commission and stated that:

In view of the above, the Commission is once again requested to ascertain the actual cost of all power projects at State Periphery in thematter to ascertain the true reason of low PLF of HPGCL units.

Thus, it is very interesting that even with no formal study conducted on reason for lower PLF of the conventional power stations in the state of Haryana and the actual performance of the

thermal stations of Haryana, the state utilities looks like have taken an arbitrary base performance of around 80% or so of the generating stations and then reduction of the PLF from that has been attributed to the renewable energy generation in the state to be a part of the number to meet the magical numbers of Rs.1.5.

When the question is still open as to whether this lower performance is due to Renewable Energy Consumed under open access or any other technical and commercial reason how a number for the same can be derived.

This Hon'ble Commission should direct relevant authorities to appoint an expert committee to undertake study to give a fair treatment to either of the sides.

b) Impact of DSM charges:

The Open Access power consumption from Solar PV technology is already governed under DSM and charges for the deviation thus further imposition of DSM charges on same power cannot be done again.

If, reliability charges will be allowed to be imposed then it will be a double collection of the duty on the same subject which is specifically prohibited by law.

c) Impact on tariff for Haryana DISCOMs for backing down coal generation.

This proposal had been proposed by DISCOM to do an act indirectly which they cannot do directly. Additional Surcharge has been conceptualized in the Act for covering impact under this heading and this Hon'ble Commission has allowed such charges to be imposed only on certain categories. However, renewable energy under CAPTIVE mode has been specifically exempted from making payment of any additional surcharge, if the reliability charges will be allowed to be recovered then additional surcharge exemption benefit to captive will remain on the paper.

d) Stand by charges:

Open Access under solar power is totally different from open access / Captive from conventional sources of power as under the conventional open access the consumer reduces its contract demand and charges up to the conventional power generation / consumption. Thus, in the event of shutdown / breakdown/ramp up the additional power required by the consumer if catered by the DISCOMs can be subjected to standby power. However, in the open access from Solar Power where the consumer does not reduce contract demand /charges and against the reduction of is PF sacrifices its incentive should not be subjected to stand by charges.

Regulation clause 23 of Haryana Electricity Regulatory Commission (Terms and conditions for grant of connectivity and open access for intra-State transmission and distribution system) Regulations, 2012 (No. 25/HERC/2012 dated 11.01.2012) (hereinafter referred to as HERC OA Regulations, 2012) provides as under: "Standby power and standby charges for drawl of power by open access consumer from distribution licensee" (1) an open access consumer requires power from the distribution licensee in case of outage of the generator or the source supplying power to such open access consumer, or a generator connected to distribution system injecting power through open access, requires start up power from

the distribution licensee, then such open access consumer or generator may make an application to the distribution licensee seeking standby power.

Thus, it also clarifies that open access from solar PV power system is all together a different transaction as compared to that from firm /conventional sources and thus cannot be subjected to standby charges.

e) Extra Transmission charges.

The open access consumer from solar PV power plant pays his entire transmission charge on the capacity contracted and thus duplication of charge shall not be allowed.

At the end, following submissions are made:

1. Are these charges not similar to that of Additional Surcharge: as per the provisions of the HERC open access regulations consumption of power under captive mode cannot be subjected to any additional surcharge. Further in the landmark order given by Hon'ble Supreme Court in the recent matter CIVIL APPEAL NOS. 5074-5075 OF 2019 MSEDCL Vs. JSW Steel Limited and Ors in its judgement dated: 10/12/2021 has categorically clarified that: -

Additional surcharge is not applicable on Captive transactions as it is for self-Consumption and not a supply to consumer and hence does not fall under section 42(4) of Electricity Act 2003.

Thus, all these charges covered under Additional Surcharge cannot be imposed on captive power consumption from solar power in the garb of Reliability Charge.

Secondly, if these charges are also covered under Additional Surcharge and is already applicable on third party transaction the same cannot be applied on third party transaction from solar pv as it will duplication of charges on the same transaction which is against natural justice.

2. There are two types of renewable energy generation and flow in the area of the distribution licensee viz.
 - a. Under open access
 - b. Under PPA with the DISCOMs for the compliance of their mandatory RPO.

The question is the DISCOMs purchase solar power from various inter and intra state to comply their mandatory RPO as well as when they find commercial benefits in buying such physical power from renewable energy sources else they would have preferred for compliance of their RPO by the purchase of solar and non-solar RECs which come at a cheaper price even at Re. 0 as floor price, much lesser then the reliability charge the already surplus power DISCOMs buy.

Further if the purchase of RE is for benefit of the DISCOMs (as their conventional power

is costlier) and is a commercial decision then backdown on account of these plants cannot be accounted for Renewable Energy.

Further, if the Hon'ble commission has passed reliability charge on entire renewable energy, is it also passed to the common public of the state through tariff as a part of the cost of renewable energy mix in the power.

If not, then there cannot be discriminatory treatment between two sources of renewable energy consumption.

3. It is also important for the Hon'ble Commission to study as to which all power plants have been backed down and why. If the power from old and high cost power generating plants have been backed down then it is solely done in the commercial interest of the DISCOMs.
4. It is also witnessed that the state utilities source a significant quantum of power under short term under bilateral purchase or through power exchanges due to which also power from power plants under long term are backed down which is again for commercial benefit of the state utilities. Till such time the state utilities purchase power under short term there cannot be an event of backing down of power from state owned conventional power plants.
5. It is pertinent to mention the statement of the Hon'ble UPERC where the Hon'ble commission has stated that:-

Commission's Analysis:

7.5.15 The Commission has taken note of the submission made by the Petitioner. It is observed that approx. 50% of the power purchased by the Licensee is from short & medium-term sources. In view of the same, it is not understood, how a consumer opting for open access would then result in the stranded costs for the Petitioner.

6. Is such mammoth quantum of lower PLF on account of renewable energy under open access or because of other technical and commercial reasons associated with inefficiencies of system, aging, and breakdown of these conventional plants.
7. Thus, the reliability charges must be revoked from immediate effect as they are not based on any scientific study and reasoning.
8. It is a basic jurisprudence of any duty is that there has to be a detailed and scientific study prior to imposition of any duty. There is not a single study in public domain which necessitated such duty on renewable energy station. Therefore, these charges are prohibitory in nature and are arbitrary, illegal and have not rationale whatsoever.

Connect Solar hope that the Hon'ble commission may find certain merits in the submission and will take necessary decision in this regard and oblige.

Commission's View:

The Commission observes that the intervener has dwelt at length on the issue of reliability charges and transmission charges applicable for the Open Access consumers. The Commission, has not gone into the merits of the contention as the same is beyond the scope of the present proceedings. The intervener lost sight of the fact that the present proceedings pertains to amendment of the MYT Regulations in vogue and as per the draft regulations put in public domain for consultation. Hence, the issues agitated by the intervener are not germane to the MYT Regulations.

3.2 Comments by IEX (Indian Energy Exchange) (email Dated 15.12.2021, No. IEX/RA/093/21-22 dated 14.12.2021):

A. Computation of Wheeling Charges for HT Network

As per the MYT Regulations, 2019, the wheeling charges per unit for short term consumer is computed by dividing the approved wheeling ARR (in Rs.) by the gross volume of energy wheeled (kWh) for that year. The relevant extracts of the regulations are below:

"62. WHEELING CHARGES

62.1 The consumers availing wheeling services for 'open access', will be charged a wheeling tariff as determined under these Regulations;

.....

Provided further that wheeling charges (Rs. /kWh) payable by the short-term open access consumers during a financial year shall be worked out by dividing the approved ARR (in Rs.) for wheeling business for that year by the gross volume of energy wheeled (kWh) during the relevant year as approved by the Commission."

Suggestions:

1. As evident from the above extract, in the present methodology, total distribution system cost is considered for computation of wheeling charge, with no demarcation of wheeling ARR between HT and LT network. Such composite wheeling charge is levied on the open access consumers.
2. However, as per regulation 8 of the HERC (Terms and Conditions for grant of connectivity and open access for intra-State transmission and distribution system) (1st Amendment) Regulations, 2013, the Hon'ble Commission has allowed open access to consumers with capacity/maximum demand of 1 MW & above and connected at 11 kV & above. It therefore flows that the consumers utilizing the facility of Open Access must be connected to HT network only.
3. We submit here that the wheeling charge for short term open access is recovered from the consumers which are connected at HT network- 11 kV & above and therefore need not include the cost associated with the LT network.
4. It is further submitted that many states such as Gujarat, Maharashtra, Delhi, Kerala, Karnataka, etc. while computing wheeling charge for the purpose of open access consider wheeling ARR for HT network only to arrive at the wheeling charges associated with the HT network.

5. It is therefore requested that wheeling charge for open access consumers ought to be computed on wheeling ARR associated with the HT network only to recover the true cost associated with HT network.

B. Consideration of Wheeling Losses in kind

As per the MYT Regulations, 2019, the distribution licensee is allowed to recover the approved level of wheeling losses of the distribution system. The relevant extracts of the regulations are below:

“62. WHEELING CHARGES

62.1 The consumers availing wheeling services for ‘open access’, will be charged a wheeling tariff as determined under these Regulations;

.....

Provided further that the Distribution Licensee shall be allowed to recover the approved level of wheeling losses arising from the operation of the distribution system, as stipulated in the respective Tariff Order from the short-term open access consumers in addition to the wheeling charges as determined above.” (Emphasis Supplied)

Suggestions:

1. It is submitted that the Hon’ble Commission while computing the wheeling charges for short term open access consumers considers the ‘cost of wheeling losses’ at the average bulk supply rate of Discoms.
2. It is pertinent to mention here that the average bulk rate of the Discoms includes fixed cost of power, transmission/SLDC charges and variable cost of power, while the price of energy wheeled by an open access consumer is only the market rate of such energy, excluding any fixed component.
3. The market rate of such wheeled energy to open access consumers is lower as compared to the bulk supply rate of Discoms. Therefore, consideration of cost of wheeling losses at the average bulk supply rate of Discoms leads to disproportionate burden on the open access consumer.
4. Therefore, it is requested that the Hon’ble Commission may consider adjustment of wheeling losses in kind as also considered by other states such as Gujarat, Kerala, Punjab, Delhi etc.

C. Levy of Wheeling Charge on Consumers connected to Distribution Network:

1. It is submitted that the MYT Regulations, 2019 does not provide clarity in the application of wheeling charge on open access consumers connected to the state transmission network i.e. 66 kV and above.
2. As per the HERC (Terms and conditions for grant of connectivity and open access for intra-State transmission and distribution system) Regulations, 2012 and further amendments, wheeling charge shall be applicable on the open access consumer only on use of distribution system. Relevant extract of the regulations is provided below:

“Chapter - VI

Open access charges

19. Transmission charges and wheeling charges. –

....

(3) Open access consumer using intra-State distribution system shall pay wheeling charges to the distribution licensee (s) for usage of the distribution system as determined by the Commission for the relevant financial year as per the provisions of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012, or its statutory reenactments, as amended from time to time.”

(Emphasis Supplied)

3. In this respect, the Hon’ble Appellate Tribunal vide Appeal Nos. 142 of 2013 & 168 of 2013 between M/s Mawana Sugar Ltd Versus Punjab State Electricity Regulatory Commission and Punjab State Power Corporation Ltd. issued order dated 17th December 2014, has specified that the wheeling charges and loss must be computed voltage wise. Relevant section of the order is extracted below:

*“46. This issue has been dealt with this by Tribunal in judgment dated 12.09.2014 in Appeal Nos. 245 of 2012 and batch in the matter of Steel Furnace Association of India Vs. Punjab State Electricity Regulatory Commission and Ors. in which the Tribunal after dealing with the Open Access Regulations, 2011 decided that the wheeling charges have been determined by the State Commission in contravention to the pro-vision of the Act, Tariff Policy and National Electricity Policy and its own Regulations and set aside the wheeling charges applicable to the open access customers with the directions to re-determine the wheeling charges applicable to open access customers as per the above findings. The relevant extracts of the judgment dated 12.09.2014 in Appeal no. 245 of 2012 & batch is reproduced below:
“58. We feel that the wheeling charges for the period from 7.5.2014 to 31.3.2013 have not been determined according to the provisions of the Electricity Act, National Electricity Policy, Tariff Policy and the comprehensive consideration of the Open Access Regulations for the following reasons:*

(i) Levy of wheeling charges from the Open Access consumers directly connected to the transmission system of the transmission licensee and are not using the distribution system of the distribution licensee for conveyance of electricity under Open Access in contravention to the scheme of Open Access under the Electricity Act, Tariff Policy and the dictum of this Tribunal in earlier judgment.

.....

(vi) The Open Access customer as per the 2011 Regulations is a consumer who has been permitted to receive power from a person other than the distribution licensee or a generating company including a captive generating plant or a licensee. Thus, if a generator connected at 220/132 kV, avails open access to supply to a consumer at 66 kV/33 kV/11 kV, it has to pay wheeling charges as distribution network is used in conveyance of electricity. Similarly, if a consumer availing supply at 220/132 kV i.e. directly connected to a transmission system, avails open access from a Captive Power Plant which is connected at 66 kV/33kV/11 kV i.e. embedded in the distribution system, then wheeling charges shall be leviable. However, when a consumer availing supply at 220 kV or 132 kV avails open access through inter-state transmission

system, then distribution network of the distribution licensee is not used and in that case no wheeling charges can be levied for use of the distribution network.

(viii) By increasing the wheeling charges substantially and imposing the same on consumers availing Open Access at 220/132 kV from outside the State, the State Commission has tried to curb Open Access thereby acting in contravention to the scheme of the Electricity Act which mandates promotion of Open Access and competition.”

59. In view of above, we feel that wheeling charges have been determined by the State Commission in contravention to the provisions of the Act, Tariff Policy, National Electricity Policy and its own Regulations. Therefore, we have no option but to set aside the impugned order in respect of determination of wheeling charges applicable to Open Access customers for the period from 7.5.2012 to 31.03.2013 with directions to re-determine the wheeling charges applicable to Open Access customers as per the above findings within 90 days of communication of this judgment and pass on the consequential relief to the Appellants and other Open Access customers.”

(Emphasis Supplied)

4. In view of the above findings of the Hon’ble APTEL and there is a clear distinction in the assets of discoms/STU, the Hon’ble Commission is hereby requested to provide suitable amendments to levy wheeling charge only on the Discom connected/embedded consumers.

Commission’s View – The Commission has perused the submissions of the intervener herein on the issue of calculations of wheeling charges applicable to the Open Access consumers in Haryana and observes that the issue flagged by them was not part of the draft Regulations / Discussion paper, hence views (comments / objections) of other stakeholders including the Haryana STU and the Distribution Licensees likely to be impacted by any change in the dispensation in vogue are not available in the matter. Hence, the Commission, at this stage, is not going into the merits of the submissions made by the Intervener herein. Additionally, the Hon’ble APTEL’s judgement cited in the matter pertains to PSERC / PSPCL wherein the dispensations provided in their Regulations may be different than in Haryana. It may not be out of place to mention here that this Commission has been following the methodology for working out wheeling charges for the Short Term Open Access Consumers for quite some times now.

3.3 Comments by Gati Infrastructure Private Limited (GIPL) Vide email dated 14.12.2021, GIPL have submitted the below comments:

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
1.	For limited purpose of benchmarking the return on equity, it is linked with 10 years Government of India bond plus risk premium based on the performance of utilities. Where, Base Rate (BR) shall mean last 2 years average rate (as on 01st November of the year in	-	As per the provision of discussion paper, RoE for generation, transmission and distribution, shall be sum of a Base Rate (BR) plus premium provided for different sources subject to a cap. However, there is a proviso that RoE shall not exceed 14%. Request you to

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
	<p>which ARR Petition is filed) of 10 years Government of India bond. Hence, the RoE for generation transmission and distribution, shall be allowed, after adding a premium over the 'Base Rate (BR)' based on the performance (both financial as well as operational parameters) of the power utilities, subject to a cap as under: -</p> <p>a) Hydro Generators: BR + 6.5% = upto 13 %</p> <p>b) Generators other than Hydro: BR +5.5% = upto 12%</p> <p>c) Distribution Business: BR +7.5% = upto 14%</p> <p>d) Transmission Business: BR + 4.5% = upto 11%.</p> <p>Provided that RoE shall not exceed 14%.</p>		<p>clarify whether 14% is the maximum RoE to be allowed over and above the capping provided for individual sources. Kindly refer the below for better understanding of the issue:</p> <p><i>Eg.:</i> <i>Hydro</i> <i>Generators: BR</i> <i>+6.5% = upto</i> <i>13% Provided</i> <i>that RoE shall not exceed 14%.</i></p> <p>In the above example, RoE for hydro generators has come out to be 12.84% (6.34% as base rate + 6.5% as premium) with 13% capping. Suppose, in future the base rate would increase and accordingly the RoE shall be calculated @ 13.5% which is above the capping of 13% however as perproviso it is less than 14%.</p> <p>Kindly clarify and confirm the above understanding.</p> <p>Further, we are suggesting the fixed RoE in place of floating RoE (refer Sl. No.2 for detailed justification), therefore such capping may be deleted once the Hon'ble HERC stipulates a fixed RoE.</p>
2.	<p>For limited purpose of benchmarking the return on equity, it is linked with 10 years Government of India bond plus risk premium based on the performance of utilities. Where, Base Rate (BR) shall mean last 2 years average rate (as on 01st November of the year in which ARR Petition is filed) of 10 years Government of India bond. Hence, the RoE for generation transmission and distribution, shall be allowed, after adding a premium over the 'Base Rate (BR)' based on the performance (both financial as well as operational parameters) of the power utilities, subject to a cap as under: -</p>	<p>Return on equity shall be computed at the rate of 14% for thermal generating station, transmission system, and at the rate of 16.50% for the hydro generating stations including pumped storage hydro generating stations and run-of river generating stationwith pondage.</p>	<p>Following are the rationale for proposed provision: Return on Equity (RoE) should be fixed and not floating:</p> <ul style="list-style-type: none"> • ROE should be fixed and not floating as any project without assurance of fixed ROE would have challenges in securing financial closure. • Linking ROE with the 10 years Government Bonds would not be appropriate. Bonds are a debt like instrument in nature and hence are not comparable parameter for determination of ROE. • Provisions of the National

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
	<p>a) Hydro Generators: BR + 6.5% = upto 13 %</p> <p>b) Generators other than Hydro: BR +5.5% = upto 12%</p> <p>c) Distribution Business: BR +7.5% = upto 14%</p> <p>d) Transmission Business: BR + 4.5% = upto 11%.</p> <p>Provided that RoE shall not exceed 14%.</p>		<p>Tariff Policy, 2016, which is a statutory policy would reveal that, firstly, the return on investment should be such that it attracts investment. Secondly, the RoE notified by the Hon'ble CERC shall be followed by the SERC's also. CERC has also provided the fixed RoE as 16.50% for hydro generating stations.</p> <ul style="list-style-type: none"> Haryana is a developing State and needs investment in infrastructure sector including power sector so that GDP of the country get a decent increase year on year basis. Reduction in the RoE will dissuade investors from making investment in the Power Sector in the State, which at present requires more investment to ensure continuous generation and supply of electricity. Therefore, to improve the investment environment in the State, there should be reasonable fixed Return on equity rather than reduction. <p>Rate of Return on Equity (RoE) should be fixed at 16.50% for the hydro generating stations:</p> <ul style="list-style-type: none"> Risk associated with the development of hydro generating stations is very high. Further, addition of hydro power plants in the country is passing through uncertainty on various counts viz. land issues, environmental challenges, local & regulatory approvals, power tie-up etc. Other risks include the long gestation period of 4 to 5 years during which no return is available to developers. CERC while deciding 16.5% RoE for hydro generating stations for FY 2019-24 has observed that in the initial

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
			<p>years, debt-equity ratio is close to normative debt: equity ratio of 70:30 and this high debt-equity ratio during the construction phase means higher risk for the equity holders during this period and hence, the expected returns are higher. However, once the plant is operational, the debt-equity ratio will reduce due to debt repayments made during the term of the loan and hence, lower the risk for the equity holder. Once all the debt is re-paid, the financial risk is reduced to that of servicing only working capital requirements. As the risk profile reduces over the life of the project, CERC is of the view that, barring few exceptions, the cost of equity for regulated entities in the power sector works out to be in the range of 12%- 15%.</p> <ul style="list-style-type: none"> • For determining the market return, CERC in its tariff regulation has considered the returns provided by the BSE Sensex over the period from April 2001 to June 2019, as a proxy for the historical returns provided by the Indian equity market and the average annual growth rate of the BSE Sensex over the period of 2001–2019 (Q-1) works out to around 17.00%. • Finally, CERC had ruled that the cost of equity arrived at using CAPM is in line with the existing rate of 16.50% for hydro generating stations in the Tariff Regulations. • It may be noted that HERC has issued new RPO Regulation 2021 wherein incorporating the HPO targets for obligated entities

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
			<p>in line with MoP notification. The main reason behind the introducing the HPO target is to promote the new hydro power plants in the Country. Therefore, lower RoE rate for hydro generating stations shall also impact the promotion of development of hydro power plants as new investor shall not invest its equity considering such lower RoE which is too floating in nature.</p>
3.	<p>Point no.4: Provided that Interest on Working Capital for generators shall be allowed on the basis average PLF in last 3 years and not on normative PLF. True up of the same should be limited to the actual interest on Working Capital.</p>	<p>This clause should only be applicable for Coal & Gas based thermal power plants.</p>	<p>It is suggested to clarify that the proposed provisions will only be applicable to Coal and Gas based Thermal Power Plants.</p>
4.	<p>Point no.7: Operation and Maintenance expenses: (c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 2.93% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 2.93% per annum.</p>	<p>Provision may be modified as below: Operation and Maintenance expenses: (c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 4.77% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 4.77% per annum.</p>	<p>It is suggested that escalation rate should be increase up to 4.77% which is also provided as per CERC Tariff Regulation 2019. Following are the reasons:</p> <ul style="list-style-type: none"> • O&M expenses of a generating station generally increase with increase in the life completed by it. Thenew plants require less O&M expenses whereas older plants require higher O&M expenses. Keeping lower rate of escalation of O&M cost may not be fair. • Around 50% of the total O&M expenses is directly related to manpower cost engaged in O&M activity of power plant and this manpower cost is generally increasing at about 7% per annum. • CERC while deciding 4.77% escalation rate for periodFY 2019-23 for hydro generating stations has observed that five -year average of WPI for FY 2013-14 to FY 2017-18 works out to 1.49%, while that of CPI for the same period works

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
			<p>out to 5.76%. Considering the 60:40 weightage for WPI and CPI respectively, the escalation rate works out to 3.20%.</p> <ul style="list-style-type: none"> • CERC has also observed that, post normalization the overall increase in the O&M Expenses from FY 2012-13 to FY 2016-17 (FY 2013-14 to FY 2017-18, in case of NHPC) was around 5.00%. While for some of the hydro generating stations the y-o-y growth was on a higher side. Thus, while the average of CPI and WPI indices are an indicator of inflation, the average increase in actual normalized O&M expenses for hydro generating stations have been marginally higher than the escalation rate of 4.70%. • In view of the above, HERC has proposed very low escalation rate of 2.93% against the 4.77% adopted by CERC through CPI and WPI indices methodology.
5.	<p>Point no.7: 44(4) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding auxiliary energy consumption and free energy, if any, during the calendar month, i.e. on ex-bus basis, at the computed energy charge rate. Total energy charge payable to the generating company for a month shall be: Energy Charges = (Energy charge rate in Rs. / kWh) x {Scheduled energy up to saleable design energy (exbus) for the month in kWh} x (100 – FEHS) / 100</p>	<p>Provision may be modified as below: 44(4) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding auxiliary energy consumption and free energy, if any, during the calendar month, i.e. on ex-bus basis, at the computed energy charge rate. Total energy charge payable to the generating company for a month shall be: Energy Charges = (Energy charge rate in Rs. / kWh) x {Scheduled energy up to saleable design energy (exbus) for the month in kWh} x (100 – FEHS) / 100</p>	<p>There is a typo error in the numbering of the provisions. Kindly correct the same.</p> <p>As you aware, saleable energy under any power purchase agreement is the Energy available for sale after the deduction of the free power to be provided by generating station to the host states. As per the formula given for calculation of Energy Charges under the provision, there is double deduction of free power – firstly scheduled energy has been calculated up to saleable design energy and secondly FEHS which is Free Energy for home state. Therefore, formula may be modified as per proposed provision wherein scheduled energy (ex-bus) should only be mentioned as</p>

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
			scheduled energy is itself is energy available after free energy for home state.
6.	<p>Point no.8: 45.3 Operation and maintenance expenses - The actual audited Employee cost (excluding terminal liabilities) and A&G expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 2.93% to arrive at the Employee cost (excluding terminal liabilities) and A&G expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below: $O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1-X_n) + \text{Terminal Liabilities}$ Where,</p>	<p>Provision may be modified as below:- 45.3 Operation and maintenance expenses The actual audited Employee cost (excluding terminal liabilities) and A&G expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 4.77% to arrive at the Employee cost (excluding terminal liabilities) and A&G expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below: $O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1-X_n) + \text{Terminal Liabilities}$ Where,</p>	<p>Kindly align the rate of escalation with Sl. No. 4 (point no.7 of discussion paper) mentioned above.</p>

Commission's View – The Commission has considered the submissions of the intervener on the issue of RoE, interest on working capital, O&M escalation as well as double counting of free energy as appearing in the proposed formula. The Commission observes that debt instrument (Govt. bond) was used to benchmark return on equity for the reason that both debt and equity including their variants are a part of capital structure. Return on equity could have been benchmarked against average return that equity commands from the similarly listed and actively traded company in the bourses. However, first it may be difficult to find a pure transmission, generation or distribution company publicly listed and traded. Most of them are multi product conglomerates hence not an appropriate benchmark for a regulated generation / transmission or distribution company. Moreover, as against debt, in the competitive market, return on equity is not guaranteed and in an event of losses or mismanagement of account receivables equity / net worth can be eroded. The objective in the power sector is to encourage investment in capital intensive segments of the sector over the entire useful life of the assets. Resultantly, the Commission has considered the risk-free return as the base and added risk adjusted premium.

It is clarified that for transmission, generation or distribution business where there is no annual determination of ARR / Tariff, the Commission shall reckon with the Base Rate as prevalent on the 1st

April of the relevant financial year. In such cases, for the entire useful life of the project, the RoE shall not be re-visited.

On the issue of working capital, it needs to be noted that the same depends on the actual volume of business, hence, on normative basis the same may get overstated and add to the avoidable burden on the electricity consumers i.e. working capital of a power plant operating at a PLF of 85% will be significantly higher as against a plant operating at PLF of 55% as the actual cost of coal, oil, maintenance and receivables will stand reduced. After an assured RoE and payment of interest on term loan as well as other prudently incurred operating expenses, interest on working capital is not an area where one ought to seek profit. Resultantly, for prudent management of current assets and current liabilities and optimization of working capital / short – term borrowing the Commission, after due deliberations, has decided to peg PLF at three-year average rather than normative levels. The same shall be applicable for all generators.

The Commission has taken note of the aberrations in the formula for calculation of energy charges for the hydro project as well as typographical error in numbering. The same shall be accordingly corrected in the final amendment Regulations. It is added that the saleable energy in the case of a hydro project is net of auxiliary energy consumption and free power to the home state i.e. Design Energy – (Auxiliary Energy Consumption (to arrive at ex-bus) + Free Power to Home State as may be applicable). The saleable energy may exceed, in certain months or period, when the water discharge at the ‘head’ is significantly higher than the design discharge. Resultantly, the saleable energy may exceed the design / primary energy. The excess energy (ex-bus) in such an event such be considered as secondary energy and the same shall be paid for by the beneficiaries at the rate determined in these Regulations.

The intervener has raised the issue of O&M escalation factor to be increased from 2.93% per annum to 4.77% per annum. The Commission has taken a considered view in the matter and after assigning relevant / appropriate weightage to the WPI and CPI, has arrived at the escalation factor. Hence, the Commission finds no merit in the suggestion of the intervener to increase the O&M escalation factor.

3.4 Comments of Sneha Kinetic Power Project Pvt. Ltd Vide email dated 14.12.2021, Ref. SKPPL/HERC/TariffDP/20211214 dated 14.12.2021,

Sneha Kinetic Power Project Pvt. Ltd. requested the Commission to comprehensively align the HERC norms with CERC Tariff Regulations 2019 and issue Explanatory Memorandum for the decisions made and shared the below detailed comments:

Sl. No.	Clause No.	Amended Provision of discussion paper	Suggested clause	Rationale of proposed clause
1.	20.1 the RoE for generation transmission and distribution, shall be allowed, after adding a premium over the ‘Base Rate (BR)’ based on the performance (both financial as well as operational parameters) of the power utilities, subject to a cap as under: - a) Hydro Generators: BR + 6.5% = the RoE for generation transmission and distribution, shall be allowed, after adding a premium over the ‘Base Rate (BR)’ a) Hydro Generators: 15.5 % b) Storage/ pondage-based hydro and PSP:16.5%	CERC adopted Capital Asset Pricing Model (CAPM) and determined posttax RoE as: <ul style="list-style-type: none"> • 16.5% for storage/ pondage-based hydro and PSP. • 15.5% for others including R-o-R Hydro.

Sl. No.	Clause No.	Amended Provision of discussion paper	Suggested clause	Rationale of proposed clause
		upto 13 % b) Generators other than Hydro: BR + 5.5% =upto 12% c) Distribution Business: BR +7.5% = upto 14% d) Transmission Business: BR + 4.5% = upto11%. Provided that RoE shall not exceed 14%.	b) Generators other than Hydro: 15.5% c) Distribution Business: 15.5% d) Transmission Business: 15.5%. Provided that RoE shall not exceed 16.5%.	This is in line with the guiding principle of "safeguarding of consumers interest and at the same time, recovery of cost of electricity in a reasonable manner" as per section 61 (d) of the Act which isto be followed by the Commission while setting the tariff norms
2.	34.4	(c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenanceexpenses for 2019-20 shall be worked out by applying escalation rate of 2.93% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 2.93% per annum.	(c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 4.77% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 4.77% per annum.	O&M escalation of 4.77% p.a. is considered by CERC which is closer to realistic number. This number is computed based on average of variation in CPI and WPI for a period of 5 year (FY 2013-14 to FY 2018-19) by giving weightage of 74:26 to CPI and WPI respectively.
3.	3.59 (a)	'Useful Life' in relation to a unit of a generating station, integrated mines, transmission system and communication system from the date ofcommercial operation shall mean the following: (e) Hydro generating station including pumped storage hydro generating stations 40 years	'Useful Life' in relation to a unit of a generating station, integrated mines, transmission system and communication system from the date of commercial operation shall mean the following: (e) Hydro generating station including pumped storage hydro generating stations 35 years	Since most Implementation Agreements (IAs) of Hydro generating stations mandate transfer of asset to Host state after 35 years at no terminal value, the life of the Hydro generating station should be limited to 35 years
4.	22.1	Interest on Working Capital For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System: (i) Receivables equivalent to 30 days of annual fixed cost; (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and Operation and maintenance expenses, including security expenses for one month	Interest on Working Capital For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System: (i) Receivables equivalent to 45 days of annual fixed cost; (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and Operation and	CERC has included 45 days of receivables under Working capital requirement in view of the normative payment cycle of the DISCOMs. Moreover, the proposed amendment to the Late Payment Surcharge clause in the DP also defines "due date" as 45 days from the date of bill.

Sl. No.	Clause No.	Amended Provision of discussion paper	Suggested clause	Rationale of proposed clause
			maintenance expenses, including security expenses for one month	
5.	22.2	Rate of interest on working capital shall be equal to the MCLR of the relevant financial year plus a maximum of 150 basis points. However, while claiming any spread, the generator and the licensees shall submit loan sanction letter from the banks/ lending institutions, indicating the applicable rate of interest. For the purpose of truing up, the actual weighted average Rate of Interest will be considered on the normative working capital by the Commission, subject to the ceiling margin as indicated above.	Rate of interest on working capital shall be equal to the MCLR of the relevant financial year plus a maximum of 350 basis points. Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2020-25; Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the licensee has not taken loan for working capital from any outside agency	CERC considered the interest on working capital to be SBI MCLR plus 350 basis points.
6.	34.4.4	In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds $\{ DE \times (100 - AUX) \times (100 - FEHS) / 10000 \}$ MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only. Provided that payment for secondary energy, over and above the design energy, if generated and scheduled, shall be capped at ninety paise per kWh.	In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds $\{ DE \times (100 - AUX) \times (100 - FEHS) / 10000 \}$ MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only. Provided that payment for secondary energy, over and above the design energy, if generated and scheduled, shall be capped at ninety paise per kWh.	While the main body of the clause specifies payment of 120 paise/kWh for the excess energy, the proviso specifies it as 90 paise/kWh which is conflicting with main body of the clause. The proviso may please be deleted.
7.	34.4.2	The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding auxiliary energy consumption and free energy, if any, during the calendar month, i.e. on ex-bus basis, at the computed energy charge rate. Total energy charge payable to the	The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding auxiliary energy consumption and free energy, if any, during the calendar month, i.e. on ex-	There seems to be an error apparent in the formula for Energy Charges. Apparently, the formula has double accounted the free power. We request you to correct the same to avoid confusion.

Sl. No.	Clause No.	Amended Provision of discussion paper	Suggested clause	Rationale of proposed clause
		generating company for a month shall be: Energy Charges = (Energy charge rate in Rs. / kWh) x {Scheduled energy up to saleable designenergy (exbus) for the month in kWh} x (100 – FEHS) / 100	bus basis, at the computed energy charge rate. Total energy charge payable to the generating company for a month shall be: Energy Charges = (Energy charge rate in Rs. / kWh) x {Scheduled energy excluding auxiliary energy consumption (exbus) for the month in kWh} x (100 – FEHS) / 100	

Commission's View : The Commission has considered the comments / suggestions of the aforementioned intervener. On the issue of RoE for Hydro projects with pondage, the Commission observes that managing and maintaining pondage over the life of the project adds to the associated risks as well as enables larger integration of renewable power in the grid. Hence, for Hydro power projects with storage an additional RoE of 1% shall be allowed. Further, the hydro PSP projects enables storage i.e. utilize electricity during the off-peak low rate period and generate during the peak period, hence, an important tool in managing peak demand. Consequently, for hydro PSP projects as well 1% additional RoE shall be admissible.

The intervener's submissions on O&M escalation based on CAPM has been considered. It needs to be noted that the rate of interest, for quite sometimes now, is seeking lower levels and this usually forms about 70% of the Capital Assets. Further, with growing competition, domestic as well as international, the return on equity / gross margin has also declined across sectors. Hence, the RoE considered in the draft discussion paper is adequate to take care of cost of capital. As far as O&M escalation is considered, the Commission, after due deliberations including at the time of notifying RE Regulations, has fixed the same and the same shall be reckoned with in the present matter as well.

The Commission has examined the contention of the intervener on the issue of useful life of hydro projects as well as on the issue of computation of working capital. The fact cannot be denied that the useful life of a hydro project may exceed even 40 years reducing the same, as suggested to 35 years, will increase the tariff by bunching up depreciation over a shorter period and also deny the benefit of tail end significantly lower tariff from a fully depreciated and debt free hydro project. Further, the suggestions to increase receivables for the computation of working capital from 30 days to 45 days for hydro projects on the plea to align the same with the payment cycle of the Discoms is also devoid of merit as hydro power projects are not burdened with maintaining fuel stocks unlike coal / gas-based power projects.

The issue raised by the intervener w.r.t. margin of 350 basis points above MCLR as against 150 basis points as per the draft discussion paper has been considered. The Commission is of the considered view that by way of tariff and PPA the entire revenue stream and RoE of the regulated entity is secured. Hence, the margin of 150 basis points (1.5%) is adequate to secure term loan. Further, in case the funding is in terms of foreign currency the cost of debt funding will be significantly lower. The Commission expects that the entities should swap its high cost funds with low cost funds available from different term lending

institutions / banks and accordingly pass on the benefit to the electricity consumers. Resultantly, the Commission finds no merit in the contention of the intervener that 350 basis points ought to be adopted.

3.5 Comments of Teesta Urja Ltd - Vide email dated 14.12.2021 and Memo No. TUL/HERC/211214 dated 14.12.2021, following comments were submitted:

Sr. No.	Clause No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
1.		<p>For limited purpose of benchmarking the return on equity, it is linked with 10 years Government of India bond plus risk premium based on the performance of utilities.</p> <p>Where, Base Rate (BR) shall mean last 2 years average rate (as on 01st November of the year in which ARR Petition is filed) of 10 years Government of India bond.</p> <p>Hence, the RoE for generation transmission and distribution, shall be allowed, after adding a premium over the 'Base Rate (BR)' based on the performance (both financial as well as operational parameters) of the power utilities, subject to a cap as under: -</p> <p>a. Hydro Generators: BR + 6.5% = upto 13 %</p> <p>b. Generators other than Hydro: BR + 5.5% = upto 12%</p> <p>c. Distribution Business: BR +7.5% = upto 14%</p> <p>d. Transmission Business: BR + 4.5% = upto 11%.</p> <p>Provided that RoE shall not exceed 14%.</p>	<p>a. As per the draft amendments, the Hon'ble HERC has subjected the Return on Equity to two cappings namely:</p> <p>i. On account of Base Rate +6.5% which is capped at 13% and</p> <p>ii. 14% as per the first proviso.</p> <p>It is submitted that the draft amendment creates ambiguity as well as makes the first proviso redundant since the RoE of hydro generators gets capped at 13% as per the main clause.</p> <p>b. Section 61 of the Act stipulates that the Hon'ble HERC shall be guided by the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees. It is prudent to mention that the Hon'ble Central Commission has specified 16.5% in CERC (Terms and Conditions of Tariff) Regulations 2019. The floating nature of the RoE as well as the capping is in deviation with the principles adopted by Central Commission and are therefore in contravention with the Act</p> <p>c. As per clause 5.11 (a) of the National Tariff Policy 2016, return on equity shall be specified by CERC and shall be followed by respective SERC. The proposed amendments are, thus, in deviation of the principles enshrined in the Tariff Policy since CERC has</p>	<p>Following modification is proposed: For limited purpose of benchmarking the return on equity, it is linked with 10 years Government of India bond plus risk premium based on the performance of utilities.</p> <p>Where, Base Rate (BR) shall mean last 2 years average rate (as on 01st November of the year in which ARR Petition is filed) of 10 years Government of India bond.</p> <p>Hence, the RoE for generation transmission and distribution, shall be allowed, after adding a premium over the 'Base Rate (BR)' based on the performance (both financial as well as operational parameters) of the power utilities, subject to a cap as under: -</p> <p>a) Hydro Generators: BR + 6.5% = upto 13%</p> <p>b) Generators other than Hydro: BR + 5.5% = upto 12%</p> <p>c) Distribution Business: BR +7.5% = upto 14%</p> <p>d) Transmission Business: BR + 4,5%= upto 11%.</p> <p>Provided that RoE shall not exceed 14%</p> <p>Provided that RoE of hydro generators shall be 16.5%</p>

Sr. No.	Clause No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
			proposed a fixed return on equity at 16.5%	
2.	22	Provided that Interest on Working Capital for generators shall be allowed on the basis average PLF in last 3 years and not on normative PLF. True up of the same should be limited to the actual interest on Working Capital.	It is submitted that the applicability of PLF is restricted to thermal generating stations only. The same maybe clarified in the regulations as well	Following modification is proposed: Provided that Interest on Working Capital for thermal generators shall be allowed on the basis average PLF in last 3 years and not on normative PLF. True up of the same should be limited to the actual interest on Working Capital.
3.	34.4	(c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 2.93% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 2.93% per annum.	It is submitted that the Hon'ble HERC has not taken cognizance of the fact that O&M of a hydro station also depends on topography, remoteness of the location and local site conditions amongst other factors. Further, the O&M is also influenced by manpower cost, thus, increasing the requirement of O&M expenses required to be incurred in comparison to other stations. It is also submitted that CERC has fixed a higher percentage of CPI while determining the escalation rate and has accordingly calculated the escalation in the ratio of 74:26. It is thus suggested that the Hon'ble HERC may also adopt 4.77% in line with CERC as escalation rate for hydro stations.	Proposed amendment may be modified as below: Operation and Maintenance expenses: (b)... (c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 2.93% 4.77% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 2.93% 4.77% per annum
4.	34.4	(c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 2.93% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 2.93% per annum.	It is submitted that the Hon'ble HERC has not taken cognizance of the fact that O&M of a hydro station also depends on topography, remoteness of the location and local site conditions amongst other factors. Further, the O&M is also influenced by manpower cost, thus, increasing the requirement of O&M expenses required to be incurred in comparison to other stations. It is also submitted that CERC has fixed a higher percentage of CPI while determining the escalation rate and has accordingly calculated the	Proposed amendment may be modified as below: Operation and Maintenance expenses: (b) (c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 2.93% 4.77% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and

Sr. No.	Clause No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
			escalation in the ratio of 74:26. It is thus suggested that the Hon'ble HERC may also adopt 4.77% in line with CERC as escalation rate for hydro stations.	maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 2.93% 4.77% per annum
5.	44(9)	In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds $IDE \times (100 - AUX) \times (100 - FEHS) / 10000$ MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only. Provided that payment for secondary energy, over and above the design energy, if generated and scheduled, shall be capped at ninety paise per kWh.	It is observed that the proviso and the main clause are in contradiction with each other. While the main clause proposes billing of secondary energy at Rs 1.2 per unit, the proviso caps the same at Rs 0.9 per unit. It is thus suggested that the proviso maybe removed to avoid ambiguity	Following is proposed: In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds $\{DE \times (100 - AUX) \times (100 - FEHS) / 10000\}$ MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only. Provided that payment for secondary energy, over and above the design energy, if generated and scheduled, shall be capped at ninety paise per kWh.

Commission's View: The Commission has considered the submissions of the intervener on the issue of pegging RoE as per CERC citing Section 61 of the Electricity Act, 2003 and the provision of National Tariff Policy. The Commission observes that the statute S. 61 provides for "guided". Hence, one should not lose sight of the fact that other than the benchmarks determined by the Hon'ble CERC. There are also other factors that has to be reckoned with including the prevalent market conditions as well as the impact on a typical electricity consumer and their capacity and ability to pay in the State. Resultantly, the Commission finds no merit in the contentions of the intervener on this issue and accordingly is not inclined to accept the same.

The other issues raised by the intervener w.r.t. to PLF three-year average vis-à-vis normative, O&M escalation has already been dealt by the Commission earlier in the present order. Hence, the same shall be accordingly construed.

The additional issue raised by intervener herein is regarding pricing of secondary energy i.e. 90 Paise / kWh or 120 Paise / kWh. The Commission notes that the entire cost of the hydro generator is recovered on the basis of design saleable energy (net of auxiliary consumption and free home state share). Hence, cost of secondary energy is negligible. Consequently, any payment made for the secondary energy is an incentive for the generator to generate to meet with the demand of the drawing state. Given the fact that the legacy PPAs are based on 'take or pay', hence liability to pay fixed cost in excess of Rs. 1.0 / kWh (converted at

normative levels) remains even when with larger integration of solar power costing around Rs. 2.0 / kWh and even lower anything above Rs. 0.90 / kWh for secondary energy would be dis-incentive for the Discoms to agree to off-take of energy in excess of design. Resultantly, in order to balance interest of all the stakeholders and discourage spillage of water, the Commission pegs incentive for secondary energy scheduled by the Discoms @ 0.90 / kWh. It is clarified that no incentive shall be payable if there is no actual draw and there shall not be any provision / claim for deemed generation.

3.6 Comments of Association of Power Producers (APP) - email dated 14.12.2021 as under:

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
1.	<p>For limited purpose of benchmarking the return on equity, it is linked with 10 years Government of India bond plus risk premium based on the performance of utilities.</p> <p>Where, Base Rate (BR) shall mean last 2 years average rate (as on 01st November of the year in which ARR Petition is filed) of 10 years Government of India bond.</p> <p>Hence, the RoE for generation transmission and distribution, shall be allowed, after adding a premium over the 'Base Rate (BR)' based on the performance (both financial as well as operational parameters) of the power utilities, subject to a cap as under: -</p> <p>a) Hydro Generators: BR + 6.5% = upto 13 %</p> <p>b) Generators other than Hydro: BR + 5.5% = upto 12%</p> <p>c) Distribution Business: BR +7.5% = upto 14%</p> <p>d) Transmission Business: BR + 4.5% = upto 11%.</p> <p>Provided that RoE shall not exceed 14%.</p>	-	<p>As per the provision of discussion paper, RoE for generation, transmission and distribution, shall be sum of a Base Rate (BR) plus premium provided for different sources subject to a cap. However, there is a proviso that RoE shall not exceed 14%. Request you to clarify whether 14% is the maximum RoE to be allowed over and above the capping provided for individual sources. Kindly refer the below for better understanding of the issue:</p> <p><i>Eg.:</i></p> <p><i>Hydro Generators:</i> BR +6.5% = upto 13% Provided that RoE shall not exceed 14%.</p> <p>In the above example, RoE for hydro generators has come out to be 12.84% (6.34% as base rate + 6.5% as premium) with 13% capping. Suppose, in future the base rate would increase and accordingly the RoE shall be calculated @ 13.5% which is above the capping of 13% however as per proviso it is less than 14%. Kindly clarify and confirm the above understanding.</p> <p>Further, we are suggesting the fixed RoE in place of floating RoE (refer Sl. No.2 for detailed justification), therefore such capping may be deleted once the Hon'ble HERC stipulates a fixed RoE.</p>
2.	<p>For limited purpose of benchmarking the return on equity, it is linked with 10 years Government of India bond plus risk premium based on the performance of utilities.</p>	<p>Return on equity shall be computed at the rate of 14% for thermal generating station, transmission system, and at the rate of 16.50% for the hydro generating stations</p>	<p>Following are the rationale for proposed provision:</p> <p>Return on Equity (RoE) should be fixed and not floating:</p> <ul style="list-style-type: none"> • ROE should be fixed and not floating as any project without

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
	<p>Where, Base Rate (BR) shall mean last 2 years average rate (as on 01st November of the year in which ARR Petition is filed) of 10 years Government of India bond.</p> <p>Hence, the RoE for generation transmission and distribution, shall be allowed, after adding a premium over the 'Base Rate (BR)' based on the performance (both financial as well as operational parameters) of the power utilities, subject to a cap as under: -</p> <p>a) Hydro Generators: BR + 6.5% = upto 13 %</p> <p>b) Generators other than Hydro: BR + 5.5% = upto 12%</p> <p>c) Distribution Business: BR +7.5% = upto 14%</p> <p>d) Transmission Business: BR + 4.5% = upto 11%</p> <p>Provided that RoE shall not exceed 14%.</p>	<p>including pumped storage hydro generating stations and run-of river generating station with pondage.</p>	<p>assurance of fixed ROE would have challenges in securing financial closure.</p> <ul style="list-style-type: none"> • Linking ROE with the 10 years Government Bonds would not be appropriate. Bonds are a debt like instrument in nature and hence are not comparable parameter for determination of ROE. <p>Provisions of the National Tariff Policy, 2016, which is a statutory policy would reveal that, firstly, the return on investment should be such that it attracts investment. Secondly, the RoE notified by the Hon'ble CERC shall be followed by the SERC's also. CERC has also provided the fixed RoE as 16.50% for hydro generating stations.</p> <ul style="list-style-type: none"> • Haryana is a developing State and needs investment in infrastructure sector including power sector so that GDP of the country get a decent increase year on year basis. Reduction in the RoE will dissuade investors from making investment in the Power Sector in the State, which at present requires more investment to ensure continuous generation and supply of electricity. Therefore, to improve the investment environment in the State, there should be reasonable fixed Return on equity rather than reduction. <p>Rate of Return on Equity (RoE) should be fixed at 16.50% for the hydro generating stations:</p> <ul style="list-style-type: none"> • Risk associated with the development of hydro generating stations is very high. Further, addition of hydro power plants in the country is passing through uncertainty on various counts viz. land issues, environmental challenges, local & regulatory approvals, power tie-up etc. Other risks include the long gestation

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
			<p>period of 4 to 5 years during which no return is available to developers.</p> <ul style="list-style-type: none"> • CERC while deciding 16.5% RoE for hydro generating stations for FY 2019-24 has observed that in the initial years, debt-equity ratio is close to normative debt: equity ratio of 70:30 and this high debt-equity ratio during the construction phase means higher risk for the equity holders during this period and hence, the expected returns are higher. However, once the plant is operational, the debt-equity ratio will reduce due to debt repayments made during the term of the loan and hence, lower the risk for the equity holder. Once all the debt is repaid, the financial risk is reduced to that of servicing only working capital requirements. As the risk profile reduces over the life of the project, CERC is of the view that, barring few exceptions, the cost of equity for regulated entities in the power sector works out to be in the range of 12%- 15%. • For determining the market return, CERC in its tariff regulation has considered the returns provided by the BSE Sensex over the period from April 2001 to June 2019, as a proxy for the historical returns provided by the Indian equity market and the average annual growth rate of the BSE Sensex over the period of 2001–2019 (Q-1) works out to around 17.00%. • Finally, CERC had ruled that the cost of equity arrived at using CAPM is in line with the existing rate of 16.50% for hydro generating stations in the Tariff Regulations.

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
			<ul style="list-style-type: none"> It may be noted that HERC has issued new RPO Regulation 2021 wherein incorporating the HPO targets for obligated entities in line with MoP notification. The main reason behind the introducing the HPO target is to promote the new hydro power plants in the Country. Therefore, lower RoE rate for hydro generating stations shall also impact the promotion of development of hydro power plants as new investor shall not invest its equity considering such lower RoE which is too floating in nature.
3.	<p>Point no.4:</p> <p>Provided that Interest on Working Capital for generators shall be allowed on the basis average PLF in last 3 years and not on normative PLF. True up of the same should be limited to the actual interest on Working Capital.</p>	<p>It is requested that the said clause may be modified as follows:</p> <p>Provided that Interest on Working Capital for coal based and gas-based generators shall be allowed on the basis of normative PLF. True up of the same should be limited to the actual interest on Working Capital.</p>	<ul style="list-style-type: none"> Interest on working capital is a component of Fixed Charge which is linked only to plant availability and not the PLF. Further, PLF is not within the control of the generator as it is governed by the demand-supply scenario, grid security issues and the generator is required to follow the directions issued by SLDC in this regard. Therefore, it would be incorrect to link the interest on working capital with PLF. Further, considering the proposed amendment, in a scenario where the average PLF of last 3 years is zero then the generator would not be eligible for any interest on working capital however, the generator would still be required to keep the plant ready to generate on demand by the procurer / SLDC which is unfair to the generators hence, the interest on working capital should be on normative parameters and not actual. Moreover, working capital is an uncontrollable parameter which is governed by the

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
			<p>variations in fuel cost and hence, the interest on working capital ought not be trued up and be allowed on normative basis.</p>
4.	<p>Point no.7: Operation and Maintenance expenses: (c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 2.93% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 2.93% per annum.</p>	<p>Provision may be modified as below: Operation and Maintenance expenses: (c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 4.77% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 4.77% per annum.</p>	<p>It is suggested that escalation rate should be increase up to 4.77% which is also provided as per CERC Tariff Regulation 2019. Following are the reasons:</p> <ul style="list-style-type: none"> • O&M expenses of a generating station generally increase with increase in the life completed by it. The new plants require less O&M expenses whereas older plants require higher O&M expenses. Keeping lower rate of escalation of O&M cost may not be fair. • Around 50% of the total O&M expenses is directly related to manpower cost engaged in O&M activity of power plant and this manpower cost is generally increasing at about 7% per annum. • Unlike thermal power stations, in case of hydropower projects, O&M expenses depend on multiple factors such as remoteness of the location, topography and local social conditions. • CERC while deciding 4.77% escalation rate for period FY 2019-23 for hydro generating stations has observed that five-year average of WPI for FY 2013-14 to FY 2017-18 works out to 1.49%, while that of CPI for the same period works out to 5.76%. Considering the 60:40 weightage for WPI and CPI respectively, the escalation rate works out to 3.20%. • CERC has also observed that, post normalization the overall increase in the O&M Expenses from FY 2012- 13 to FY 2016-17 (FY 2013-14 to FY 2017-18, in case of NHPC) was around 5.00%. While for some of the hydro generating stations the

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
			<p>y-o-y growth was on a higher side. Thus, while the average of CPI and WPI indices are an indicator of inflation, the average increase in actual normalised O&M expenses for hydro generating stations have been marginally higher than the escalation rate of 4.70%.</p> <ul style="list-style-type: none"> In view of the above, HERC has proposed very low escalation rate of 2.93% against the 4.77% adopted by CERC through CPI and WPI indices methodology.
5.	<p>Point no.7: 44(4) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding auxiliary energy consumption and free energy, if any, during the calendar month, i.e. on ex-bus basis, at the computed energy charge rate. Total energy charge payable to the generating company for a month shall be: Energy Charges = (Energy charge rate in Rs. / kWh) x {Scheduled energy up to saleable design energy (exbus) for the month in kWh} x (100 – FEHS) / 100</p>	<p>Provision may be modified as below: 44(4) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding auxiliary energy consumption and free energy, if any, during the calendar month, i.e. on ex-bus basis, at the computed energy charge rate. Total energy charge payable to the generating company for a month shall be: Energy Charges = (Energy charge rate in Rs. / kWh) x {Scheduled energy up to saleable design energy (exbus) for the month in kWh} x (100 – FEHS) / 100</p>	<p>There is a typo error in the numbering of the provisions. Kindly correct the same. As you aware, saleable energy under any power purchase agreement is the Energy available for sale after the deduction of the free power to be provided by generating station to the host states. As per the formula given for calculation of Energy Charges under the provision, there is double deduction of free power – firstly scheduled energy has been calculated up to saleable design energy and secondly FEHS which is Free Energy for home state. Therefore, formula may be modified as per proposed provision wherein scheduled energy (ex-bus) should only be mentioned as scheduled energy is itself is energy available after free energy for home state.</p>
6.	<p>Point no.7: 44(9) In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds {DE x (100 – AUX) x (100 – FEHS)/10000} MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only.</p>	<p>Provision may be modified as below: 44(9) In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds {DE x (100 – AUX) x (100 – FEHS)/10000} MWh, the energy</p>	<p>There is a typo error in the numbering of the provisions. Kindly correct the same. Kindly correct the typo error where Rs.0.90 per kWh has been erroneously mentioned in the last para in place of Rs.1.20 per kWh. Please modify the provision in order to align the clause to provide rate for secondary energy which is over and above the design energy at Rs.1.20/ kWh.</p>

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
	Provided that payment for secondary energy, over and above the design energy, if generated and scheduled, shall be capped at ninety paise per kWh.	charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only. Provided that payment for secondary energy, over and above the design energy, if generated and scheduled, shall be capped at one hundred and twenty paise per kWh.	
7.	<p>Point no.8:</p> <p>45.3 Operation and maintenance expenses The actual audited Employee cost (excluding terminal liabilities) and A&G expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 2.93% to arrive at the Employee cost (excluding terminal liabilities) and A&G expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below: $O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1-X_n) + \text{Terminal Liabilities}$ Where,</p>	<p>Provided that payment for secondary energy, over and above the design energy, if generated and scheduled, shall be capped at one hundred and twenty paise per kWh. Provision may be modified as below:</p> <p>45.3 Operation and maintenance expenses The actual audited Employee cost (excluding terminal liabilities) and A&G expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 4.77% to arrive at the Employee cost (excluding terminal liabilities) and A&G expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below: $O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1-X_n) + \text{Terminal Liabilities}$ Where,</p>	Kindly align the rate of escalation with Sl. No. 4 (point no.7 of discussion paper) mentioned above.

Commission's View: - The Commission has considered the comments / suggestions filed by the Association of Power Producers which was reiterated by the learned Counsel Shri Amit Kapur present in the hearing held in the matter. It is once again clarified that upper ceiling for RoE has been pegged at 14%. Hence, in case the base rate + premium exceeds 14%, the upper ceiling shall remain 14% i.e. up to 14%. Further, the Commission has dealt at length the issue of floating RoE,

the rationale for linking RoE with the risk-free debt instrument as well as the escalation factor. Hence, the same is not repeated here.

3.7 Comments from Associated Chambers of Commerce and Industry of India (ASSOCHAM)

Vide email dated 13.12.2021, comments submitted are as under:

1. Page 1 &2: Proposed amendment of Regulation 15.3, 20 & 25

For limited purpose of benchmarking the return on equity, it is linked with 10 years Government of India bond plus risk premium based on the performance of utilities.

Where, Base Rate (BR) shall mean last 2 years average rate (as on 01st November of the year in which ARR Petition is filed) of 10 years Government of India bond.

Hence, the RoE for generation transmission and distribution, shall be allowed, after adding a premium over the 'Base Rate (BR)' based on the performance (both financial as well as operational parameters) of the power utilities, subject to a cap as under: -

- a) Hydro Generators: BR + 6.5% = upto 13 %
- b) Generators other than Hydro: BR + 5.5% = upto 12%
- c) Distribution Business: BR +7.5% = upto 14%
- d) Transmission Business: BR + 4.5% = upto 11%.

Provided that RoE shall not exceed 14%.

Comments:

As per the provision of discussion paper, RoE for generation, transmission and distribution, shall be sum of a Base Rate (BR) plus premium provided for different sources subject to a cap. However, there is a proviso that RoE shall not exceed 14%.

Request you to clarify whether 14% is the maximum RoE to be allowed over and above the capping provided for individual sources. Kindly refer below for better understanding of the issue flagged.

*Eg.: Hydro Generators: BR +6.5% = upto 13%,
Provided that RoE shall not exceed 14%.*

In the above example, RoE for hydro generators has come out to be 12.84% (6.34% as base rate + 6.5% as premium) with 13% capping. Suppose, in future the base rate would increase and accordingly the RoE shall be calculated @ 13.5% which is above the capping of 13% however as per proviso it is less than 14%.

Kindly clarify and confirm the above understanding.

Suggestion:

- A. Return on equity shall be computed at the rate of 14% for thermal generating station, transmission system, and at the rate of 16.50% for the hydro generating stations including

pumped storage hydro generating stations and run-of river generating station with pondage.

B. Return on Equity (RoE) should be fixed and not floating:

ROE should be fixed and not floating as any project without assurance of fixed ROE would have challenges in securing financial closure.

Linking ROE with the 10 years Government Bonds would not be appropriate. Bonds are a debt like instrument in nature and hence are not comparable parameter for determination of ROE.

Provisions of the National Tariff Policy, 2016, which is a statutory policy would reveal that, firstly, the return on investment should be such that it attracts investment. Secondly, the RoE notified by the Hon'ble CERC shall be followed by the SERC's also. CERC has also provided the fixed RoE as 16.50% for hydro generating stations.

Haryana is a developing State and needs investment in infrastructure sector including power sector so that GDP of the country get a decent increase year on year basis. Reduction in the RoE will dissuade investors from making investment in the Power Sector in the State, which at present requires more investment to ensure continuous generation and supply of electricity. Therefore, to improve the investment environment in the State, there should be reasonable fixed Return on equity rather than reduction.

C. Rate of Return on Equity (RoE) should be fixed at 16.50% for the hydro generating stations:

Risk associated with the development of hydro generating stations is very high. Further, addition of hydro power plants in the country is passing through uncertainty on various counts viz. land issues, environmental challenges, local & regulatory approvals, power tie-up etc. Other risks include the long gestation period of 4 to 5 years during which no return is available to developers. CERC while deciding 16.5% RoE for hydro generating stations for FY 2019-24 has observed that in the initial years, debt-equity ratio is close to normative debt: equity ratio of 70:30 and this high debt-equity ratio during the construction phase means higher risk for the equity holders during this period and hence, the expected returns are higher. However, once the plant is operational, the debt-equity ratio will reduce due to debt repayments made during the term of the loan and hence, lower the risk for the equity holder. Once all the debt is repaid, the financial risk is reduced to that of servicing only working capital requirements. As the risk profile reduces over the life of the project, CERC is of the view that, barring few exceptions, the cost of equity for regulated entities in the power sector works out to be in the range of 12%- 15%.

For determining the market return, CERC in its tariff regulation has considered the returns provided by the BSE Sensex over the period from April 2001 to June 2019, as a proxy for the historical returns provided by the Indian equity market and the average annual growth rate of the BSE Sensex over the period of 2001–2019 (Q-1) works out to around 17.00%.

Finally, CERC had ruled that the cost of equity arrived at using CAPM is in line with the existing rate of 16.50% for hydro generating stations in the Tariff Regulations.

It may be noted that HERC has issued new RPO Regulation 2021 wherein incorporating the HPO targets for obligated entities in line with MoP notification. The main reason behind the introducing the HPO target is to promote the new hydro power plants in the Country. Therefore, lower RoE rate for hydro generating stations shall also impact the promotion of development of hydro power plants as new investor shall not invest its equity considering such lower RoE which is too floating in nature.

2. Page 3: Proposed amendment of Regulation 22

Provided that Interest on Working Capital for generators shall be allowed on the basis average PLF in last 3 years and not on normative PLF. True up of the same should be limited to the actual interest on Working Capital.

Comments:

It is requested to clarify that the proposed provisions will only be applicable to Coal and Gas based Thermal Power Plants.

Suggestion:

This clause should only be applicable for Coal & Gas based thermal power plants.

3. Page 8&9: Proposed amendment of Regulation 34.4

Operation and Maintenance expenses:

(b)

(c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 2.93% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 2.93% per annum.

Comments:

It is suggested that escalation rate should be increase up to 4.77% which is also provided as per CERC Tariff Regulation 2019. Following are the reasons:

O&M expenses of a generating station generally increase with increase in the life completed by it. The new plants require less O&M expenses whereas older plants require higher O&M expenses. Keeping lower rate of escalation of O&M cost may not be fair.

Around 50% of the total O&M expenses is directly related to manpower cost engaged in O&M activity of power plant and this manpower cost is generally increasing at about 7% per annum.

Unlike thermal power stations, in case of hydropower projects, O&M expenses depend on multiple factors such as remoteness of the location, topography and local social conditions.

CERC while deciding 4.77% escalation rate for period FY 2019-23 for hydro generating stations has observed that five -year average of WPI for FY 2013-14 to FY 2017-18 works out to 1.49%, while that of CPI for the same period works out to 5.76%. Considering the 60:40 weightage for WPI and CPI respectively, the escalation rate works out to 3.20%.

CERC has also observed that, post normalization the overall increase in the O&M Expenses from FY 2012- 13 to FY 2016-17 (FY 2013-14 to FY 2017-18, in case of NHPC) was around 5.00%. While for some of the hydro generating stations the y-o-y growth was on a higher side. Thus, while the average of CPI and WPI indices are an indicator of inflation, the average increase in actual normalised O&M expenses for hydro generating stations have been marginally higher than the escalation rate of 4.70%.

In view of the above, HERC has proposed very low escalation rate of 2.93% against the 4.77% adopted by CERC through CPI and WPI indices methodology.

Suggestion:

Proposed amendment may be modified as below:

“Operation and Maintenance expenses:

(b).....

(c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 4.77% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 4.77% per annum”

4. Page 12: Proposed amendment of Regulation 44(4)

44(4) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding auxiliary energy consumption and free energy, if any, during the calendar month, i.e. on ex-bus basis, at the computed energy charge rate. Total energy charge payable to the generating company for a month shall be:

Energy Charges = (Energy charge rate in Rs. / kWh) x {Scheduled energy up to saleable design energy (exbus) for the month in kWh} x (100 – FEHS) / 100

Comments:

There is a typo error in the numbering of the provisions. Kindly correct the same.

As you aware, saleable energy under any power purchase agreement is the Energy available for sale after the deduction of the free power to be provided by generating station to the host states.

As per the formula given for calculation of Energy Charges under the provision, there is double deduction of free power – firstly scheduled energy has been calculated up to saleable design energy and secondly FEHS which is Free Energy for home state. Therefore, formula may be modified as per proposed provision wherein scheduled energy (ex-bus) should only be mentioned as scheduled energy is itself is energy available after free energy for home state.

Suggestion:

Provision may be modified as below:

“44(4) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding auxiliary energy consumption and free energy, if any, during the calendar month, i.e. on ex-bus basis, at the computed energy charge rate. Total energy charge payable to the generating company for a month shall be:

Energy Charges = (Energy charge rate in Rs. / kWh) x {Scheduled energy up to saleable design energy (exbus) for the month in kWh} x (100 – FEHS) / 100”

5. Page 13: Proposed amendment of Regulation 44(9)

“44(9) In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds {DE x (100 – AUX) x (100 – FEHS)/10000} MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only.

Provided that payment for secondary energy, over and above the design energy, if generated and scheduled, shall be capped at ninety paise per kWh. “

Comments:

There is a typo error in the numbering of the provisions. Kindly correct the same.

Kindly correct the typo error where Rs.0.90 per kWh has been erroneously mentioned in the last para in place of Rs.1.20 per kWh. Please modify the provision in order to align the clause to provide rate for secondary energy which is over and above the design energy at Rs.1.20/ kWh

Suggestion:

Provision may be modified as below:

“44(9) In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds {DE x (100 – AUX) x (100 – FEHS)/10000} MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only.

Provided that payment for secondary energy, over and above the design energy, if generated and scheduled, shall be capped at one hundred and twenty paise per kWh. “

6. Page 13: Proposed amendment of Regulation 45.3

“45.3 Operation and maintenance expenses

The actual audited Employee cost (excluding terminal liabilities) and A&G expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 2.93% to arrive at the Employee cost (excluding terminal liabilities) and A&G expenses for the base year of the control period. The O&M expenses for the nth year

of the control period shall be approved based on the formula given below: $O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1 - X_n) + \text{Terminal Liabilities}$

Where,

Comments:

Kindly align the rate of escalation with para Sl. No. 3 above

Suggestion:

Provision may be modified as below:

“45.3 Operation and maintenance expenses

The actual audited Employee cost (excluding terminal liabilities) and A&G expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 4.77% to arrive at the Employee cost (excluding terminal liabilities) and A&G expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below: $O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1 - X_n) + \text{Terminal Liabilities}$

Where,

The Commission has considered the suggestions of ASSOCHAM. It is observed that the objections / suggestions pertain to RoE (floating / ceiling), average PLF for computation of working capital and interest thereto, escalation factor for O&M and the formula for computing energy charges for hydro power projects. All these issues have been already been dealt by the Commission earlier in the present order. Hence, the same is not being reproduced here.

3.8 Comments of JSW Energy Limited (Vide letter dated 08.12.2021), JSW Energy Limited submitted the comments/ suggestions as under:

Sl. No.	Amended Provision of discussion paper	Proposed Provision by JSWEL	Rationale of proposed clause
1.	<p>Point no.2: 20. Return on Equity For limited purpose of benchmarking the return on equity, it is linked with 10 years Government of India bond plus risk premium based on the performance of utilities. Where, Base Rate (BR) shall mean last 2 years average rate (as on 01st November of the year in which ARR Petition is filed) of 10 years Government of India bond. Hence, the RoE for generation transmission and distribution, shall be allowed, after adding a premium over the 'Base Rate (BR)' based on the performance (both financial as well as operational</p>	-	<p>As per the provision of discussion paper, RoE for generation, transmission and distribution, shall be sum of a Base Rate (BR) plus premium provided for different sources subject to a cap. However, there is a proviso that RoE shall not exceed 14%. Request you to clarify whether 14% is the maximum RoE to be allowed over and above the capping provided for individual sources. Kindly refer the below for better understanding of the issue: <i>Eg.:</i> <i>Hydro</i> <i>Generators: BR</i> <i>+6.5% = upto</i></p>

Sl. No.	Amended Provision of discussion paper	Proposed Provision by JSWEL	Rationale of proposed clause
	<p>parameters) of the power utilities, subject to a cap as under: -</p> <p>a) Hydro Generators: BR + 6.5% = upto 13 %</p> <p>b) Generators other than Hydro: BR + 5.5% = upto 12%</p> <p>c) Distribution Business: BR + 7.5% = upto 14%</p> <p>d) Transmission Business: BR + 4.5% = upto 11%.</p> <p>Provided that RoE shall not exceed 14%.</p>		<p><i>13% Provided that RoE shall not exceed 14%.</i></p> <p>In the above example, RoE for hydro generators has come out to be 12.84% (6.34% as base rate + 6.5% as premium) with 13% capping. Suppose, in future the base rate would increase and accordingly the RoE shall be calculated @ 13.5% which is above the capping of 13% however as per proviso it is less than 14%.</p> <p>Kindly clarify and confirm the above understanding.</p> <p>Further, we are suggesting the fixed RoE in place of floating RoE (refer Sl. No.2 for detailed justification), therefore such capping may be deleted.</p>
2.	<p>Point no.2: 20. Return on Equity For limited purpose of benchmarking the return on equity, it is linked with 10 years Government of India bond plus risk premium based on the performance of utilities. Where, Base Rate (BR) shall mean last 2 years average rate (as on 01st November of the year in which ARR Petition is filed) of 10 years Government of India bond. Hence, the RoE for generation transmission and distribution, shall be allowed, after adding a premium over the 'Base Rate (BR)' based on the performance (both financial as well as operational parameters) of the power utilities, subject to a cap as under: -</p> <p>a) Hydro Generators: BR + 6.5% = upto 13 %</p> <p>b) Generators other than Hydro: BR + 5.5% = upto 12%</p> <p>c) Distribution Business: BR + 7.5% = upto 14%</p> <p>d) Transmission Business: BR + 4.5% = upto 11%.</p> <p>Provided that RoE shall not exceed 14%.</p>	<p>Return on equity shall be computed at the rate of 14% for thermal generating station, transmission system, and at the rate of 16.50% for the hydro generating stations including pumped storage hydro generating stations and run-of river generating station with pondage.</p>	<p>Following in respect of the proposed method of calculation of RoE under discussion paper needs to be reconsidered:</p> <ul style="list-style-type: none"> • The base rate considered is the two-year average rate (as on 1st November of the year in which ARR petition is filed) of 10-year Government of India bond which may not be prudent approach on account of following: <ul style="list-style-type: none"> ○ The forum of regulator's report considers the base rate as the 5-year average rate of 10-year Government of India bond. ○ Going by the forum of regulator's report, the base rate as on date would work out to about 6.89% as compared to the base rate of 6.34%, if calculated as per the proposed HERC amendment. • The proposed provision i.e. Base Rate shall mean last 2 years average rate (as on 1st November of the year in which ARR petition is filed) could lead to discrimination of Return on Equity between a project

Sl. No.	Amended Provision of discussion paper	Proposed Provision by JSWEL	Rationale of proposed clause
			<p>commissioned in the 1st year of the control period, and the 3rd and the 5th year of the control period. The RoE, at least for all projects that are commissioned in the control period, should be equal.</p> <p><i>Illustration</i></p> <p><i>a. Suppose Base rate during the 1st year of control period is 6.34%, therefore as per proposed formula RoE for hydro projects commissioned during that year would be $6.34\%+6.50\%=12.84\%$.</i></p> <p><i>b. Now suppose base rate during the 3rd year of control period will be 6.20%, hence RoE for projects commissioned during that year would be $6.20\%+6.50\%=12.70\%$.</i></p> <p><i>c. Above differential RoE for the projects commissioned in the same control period is not correct and would lead to discrimination of returns for similar project and hence to investment uncertainty.</i></p> <ul style="list-style-type: none"> ● Risk Premium Calculation: <ul style="list-style-type: none"> ○ Risk premium calculation is not disclosed in the discussion paper issued by the Hon'ble HERC. <p>It is submitted that the Hon'ble CERC in its explanatory memorandum to the Tariff Regulations, 2019 has gone into great depths to work out the calculation of risk premium. For instance, for hydro generating stations, the risk premium calculation by the CERC, considering all aspects stands at 7.76%, which is higher than the</p>

Sl. No.	Amended Provision of discussion paper	Proposed Provision by JSWEL	Rationale of proposed clause
			<p>figure of 6.5% as proposed in the discussion paper.</p> <ul style="list-style-type: none"> ● Subjecting risk premium to performance: <ul style="list-style-type: none"> ○ As per the proposed amendment, even the risk premium proposed is not constant, but varies with the performance of the utilities. However, there is no indication on how this “performance” affecting the risk premium would be adjudged. ○ Even the FoR report referred to in the discussion paper, does not subject the risk premium to the performance of the utilities. ○ In absence of a disclosed criteria of judging performance and its impact on the risk premium, the provision is wholly arbitrary. No person is likely to invest under such uncertain circumstances. <p>Therefore, suggestion is to follow and adopt the fixed rate of return on equity from the CERC tariff regulations as is provided for in the National Tariff Policy, 2016. The explanatory memorandum of the CERC is extensive, detailed and indubitable. There should be no difficulty for this Hon’ble Commission to adopt the same and align its regulation on the fixed rate of RoE with that of the CERC.</p> <p>Following are the rationale for proposed provision:</p> <ul style="list-style-type: none"> ● ROE should be fixed and not floating as any project without assurance of fixed ROE would have challenges in securing financial closure. ● Provisions of the National Tariff Policy, 2016, which is a statutory policy would reveal that, firstly, the return on investment should be such that it attracts

Sl. No.	Amended Provision of discussion paper	Proposed Provision by JSWEL	Rationale of proposed clause
			<p>investment. Secondly, the RoE notified by the Hon'ble CERC shall be followed by the SERC's also. CERC has also provided the fixed RoE as 16.50% for hydro generating stations.</p> <ul style="list-style-type: none"> • Haryana is a developing State and needs investment in infrastructure sector including power sector so that GDP of the country get a decent increase year on year basis. Reduction in the RoE will dissuade investors from making investment in the Power Sector in the State, which at present requires more investment to ensure continuous generation and supply of electricity. Therefore, to improve the investment environment in the State, there should be reasonable fixed Return on equity rather than reduction. <p>The proposed regulation providing a cap of 13% on RoE on hydro generation is not an attractive rate for return on investment when compared to the risks associated with hydro generating plants. There are other sectors such as roads, mining & minerals & ports etc, which provide a higher rate of RoE with a much lower risk profile.</p> <ul style="list-style-type: none"> • Risk associated with the development of hydro generating stations is very high. Further, addition of hydro power plants in the country is passing through uncertainty on various counts viz. land issues, environmental challenges, local & regulatory approvals, power tie-up etc. Other risks include the long gestation period of 4 to 5 years during which no return is available to developers.

Sl. No.	Amended Provision of discussion paper	Proposed Provision by JSWEL	Rationale of proposed clause
			<ul style="list-style-type: none"> • CERC had ruled that the cost of equity arrived at using CAPM is in line with the existing rate of 16.50% for hydro generating stations in the Tariff Regulations. • It may be noted that HERC has issued new RPO Regulation 2021 wherein incorporating the HPO targets for obligated entities in line with MoP notification. The main reason behind the introducing the HPO target is to promote the new hydro power plants in the Country. Therefore, lower RoE rate for hydro generating stations shall also impact the promotion of development of hydro power plants as new investor shall not invest its equity considering such lower RoE which is too floating in nature.
3.	<p>Point no.4: Provided that Interest on Working Capital for generators shall be allowed on the basis average PLF in last 3 years and not on normative PLF. True up of the same should be limited to the actual interest on Working Capital.</p>	<p>This clause should only be applicable for Coal & Gas based thermal power plants.</p>	<p>It is suggested to clarify that the proposed provisions will only be applicable to Coal and Gas based Thermal Power Plants.</p>
4.	<p>Point no.7: Operation and Maintenance expenses: I In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 2.93% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 2.93% per annum.</p>	<p>Provision may be modified as below: Operation and Maintenance expenses: © In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 4.77% on the applicable operation and maintenance expenses as on 31.3.2019. The</p>	<p>It is suggested that escalation rate should be increase up to 4.77% which is also provided as per CERC Tariff Regulation 2019. Following are the reasons:</p> <ul style="list-style-type: none"> • O&M expenses of a generating station generally increase with increase in the life completed by it. The new plants require less O&M expenses whereas older plants require higher O&M expenses. Keeping lower rate of escalation of O&M cost may not be fair. • Around 50% of the total O&M expenses is directly related to manpower cost engaged in O&M activity of power plant and this manpower cost is generally

Sl. No.	Amended Provision of discussion paper	Proposed Provision by JSWEL	Rationale of proposed clause
		<p>operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 4.77% per annum.</p>	<p>increasing at about 10% per annum.</p> <ul style="list-style-type: none"> • Unlike thermal power stations, in case of hydropower projects, O&M expenses depend on multiple factors such as remoteness of the location, topography and local social conditions. • CERC while deciding 4.77% escalation rate for period FY 2019-23 for hydro generating stations has observed that five -year average of WPI for FY 2013-14 to FY 2017-18 works out to 1.49%, while that of CPI for the same period works out to 5.76%. Considering the 60:40 weightage for WPI and CPI respectively, the escalation rate works out to 3.20%. • CERC has also observed that, post normalisation on the overall increase in the O&M Expenses from FY 2012- 13 to FY 2016-17 (FY 2013-14 to FY 2017-18, in case of NHPC) was around 5.00%. While for some of the hydro generating stations the y-o-y growth was on a higher side. Thus, while the average of CPI and WPI indices are an indicator of inflation, the average increase in actual normalised O&M expenses for hydro generating stations have been marginally higher than the escalation rate of 4.70%. • In view of the above, HERC has proposed very low escalation rate of 2.93% against the 4.77% adopted by CERC through CPI and WPI indices methodology.
5.	<p>Point no.7: 44(4) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary,</p>	<p>Provision may be modified as below: 44(4) The energy charge shall be payable by every</p>	<p>There is a typo error in the numbering of the provisions. Kindly correct the same. As you aware, saleable energy under any power purchase</p>

Sl. No.	Amended Provision of discussion paper	Proposed Provision by JSWEL	Rationale of proposed clause
	<p>excluding auxiliary energy consumption and free energy, if any, during the calendar month, i.e. on ex-bus basis, at the computed energy charge rate. Total energy charge payable to the generating company for a month shall be: Energy Charges = (Energy charge rate in Rs. / kWh) x {Scheduled energy up to saleable design energy (exbus) for the month in kWh} x (100 – FEHS) / 100</p>	<p>beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding auxiliary energy consumption and free energy, if any, during the calendar month, i.e. on ex-bus basis, at the computed energy charge rate. Total energy charge payable to the generating company for a month shall be: Energy Charges = (Energy charge rate in Rs. / kWh) x {Scheduled energy up to saleable design energy (exbus) for the month in kWh} x (100 – FEHS) / 100</p>	<p>agreement is the Energy available for sale after the deduction of the free power to be provided by generating station to the host states. As per the formula given for calculation of Energy Charges under the provision, there is double deduction of free power – firstly scheduled energy has been calculated up to saleable design energy and secondly FEHS which is Free Energy for home state. Therefore, formula may be modified as per proposed provision wherein scheduled energy (ex-bus) should only be mentioned as scheduled energy is itself is energy available after free energy for home state.</p>
6.	<p>Point no.7: 44(9) In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds {DEx (100 – AUX) x (100 – FEHS)/10000} MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only. Provided that payment for secondary energy, over and above the design energy, if generated and scheduled, shall be capped at ninety paise per kWh.</p>	<p>Provision may be modified as below: 44(9) In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds {DE x (100 – AUX) x (100 – FEHS)/10000} MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only. Provided that payment for secondary energy, over and above the design energy, if generated and scheduled, shall be</p>	<p>There is a typo error in the numbering of the provisions. Kindly correct the same. Kindly correct the typo error where Rs.0.90 per kWh has been erroneously mentioned in the last para in place of Rs.1.20 per kWh. Please modify the provision in order to align the clause to provide rate for secondary energy which is over and above the design energy at Rs.1.20/kWh. Further, CERC has also provided the energy charge rate for secondary energy as Rs.1.20/kWh under Tariff Regulation FY 2019-24 after considering the lowest variable cost of thermal generating station.</p>

Sl. No.	Amended Provision of discussion paper	Proposed Provision by JSWEL	Rationale of proposed clause
		capped at one hundred and twenty paise per kWh.	
7.	<p>Point no.8: 45.3 Operation and maintenance expenses The actual audited Employee cost(excluding terminal liabilities) and A&G expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 2.93% to arrive at the Employee cost (excluding terminal liabilities) and A&G expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below: $O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1 - X_n) + TerminalLiabilities$ Where,</p>	<p>Provision may be modified as below: 45.3 Operation and maintenance expenses The actual audited Employee cost (excluding terminal liabilities) and A&G expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 4.77% to arrive at the Employee cost (excluding terminal liabilities) and A&G expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below: $O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1 - X_n) + TerminalLiabilities$ Where,</p>	Kindly align the rate of escalation with Sl. No. 4 (point no.7 of discussion paper) mentioned above.

The Commission observes that all the issues raised by the intervener herein has already been dealt earlier in the present order. Hence, the same should be accordingly construed.

3.9 Comments of HVPNL (Vide memo no. 73/SAO/RAU dated 10.12.2021), HVPNL submitted the comments as under:

1. Regulation 16 – Components of Tariff for Transmission & SLDC Business.

As per the proposed amended, the fixed cost of Generating Stations would be inclusive of taxes on income. However, the similar changes have not been proposed by the Hon'ble Commission for the Transmission Licensee in Regulation 16.3. The Hon'ble Commission is thus requested to incorporate the same.

The Commission has taken note of the above submissions and observes that the taxes on income / MAT shall be a pass through, on actual basis, for Generation, Transmission & SLDC as well as the Distribution Licensees i.e. the entities on which MYT Regulations notified and amended by the Commission is applicable.

2. Regulation 20 – Return on Equity

HVPNL submits that: -

- i) The investment made in equity already done by owner should be provided with the 14 % ROE as already promised by State Commission in its existing MYT Regulation. The Return on Equity cannot be reduced retrospectively.
- ii) Reduction in ROE will adversely affect the private investment in the transmission sector.
- iii) Hon'ble HERC may take decision year on year without changing the provisions already existing in the MYT regulation.

It is submitted that Return on Equity is an ARR component which ensures each power utilities books a regulated profit by way of return on the equity deployed. The said profit can be utilized by the business for growth and expansion. This RoE also makes the Balance Sheet of the utility attractive and increased Net Worth which is necessary improve the rating of the utility which helps the utility to avail the loans at a competitive rate. Moreover, the Return on Equity also enables to manage its expenses in the best interest of consumer by repayment of high-cost debt and availing lower amount of Working Capital Loan & also to set off the disallowance of expenditure made by Hon'ble Commission from time to time.

Thus, allowing or allowing RoE at lesser rate deprives HVPNL from the much-required liquidity to enable it to function with efficiency and sustainability. Moreover, the RoE is leveraged by the Company for growth and improvement in transmission network and the same will also be impacted if any reduction in RoE is made.

As such, keeping in view the above submission and quantum of investment, risk factor, consequential impact on profit, balance sheet and increase in cost of debts. Hon'ble HERC is requested to allow RoE @ 14 % (including Risk premium) in respect of Transmission Business.

The Commission has taken note of HVPNL's submissions on RoE. It is clarified that the amendment shall be applicable prospectively i.e. from the date of gazette notification. Further, it needs to be noted that return on equity has been aligned with the market forces wherein, all-inclusive cost of transmission projects discovered through tariff based competitive bidding is significantly lower than that determined by different SERCs / CERC under Section 62 of the Electricity Act, 2003. Hence, the Commission believes that the amendment will give correct signals for investments in the sector instead of retaining the existing dispensation and then taking a call on case specific or year to year basis.

3. Regulation 25 – Income Tax

HVPNL welcomes the proposed amendment by the Hon'ble Commission to treat the Income Tax as an expense or a pass-through component in the tariff on actual basis. Income Tax liability on the licensee is a legitimate expense and pass through of the same in ARR would help the licensee to achieve wider coverage of its cost through the tariff and eventually would strengthen the balance sheet.

It also needs to be noted that, corporate tax / MAT pass through (on actual basis on submission of requisite documentary evidence) which was earlier paid out of the revenue / return on equity, of the licensees / generating company, will now be reimbursed by the beneficiaries. Hence, would provide some cushion for aligning the RoE with the prevalent market conditions. Moreover, the MYT Regulations in vogue also do not provide for 14% guaranteed return on equity but depending on various factors the value can be lower as well.

4. Regulation 45.3 - O&M norms in case of Transmission Business.

HVPNL submits that the Hon'ble Commission has proposed to reduce the escalation factor to 2.93% in the proposed amendments to the regulations. However, in this context, HVPNL would like to submit that: -

- i) The escalation factor of 2.93 % is extremely low and may not reflect the actual inflationary situation and should not be less than 4%.
- ii) The inflation factor to work out the O&M expenses should be determined based on not the short-term inflation but on Medium Term inflation. Medium Term inflation would be average of at least last three-year situations.
- iii) HVPNL submits that while the inflation rate may appear on a lower side during certain financial years but the same may be considered as an exception case as in the long term, the inflation rate tends to remain higher than 2.93%. Further, if lesser inflation factor is allowed then it will unnecessary invite allowing carrying cost on the differential revenue Gap by HERC at the time of True Up.

The issue of O&M has already been dealt with by the Commission in the present order. Hence, the same is not repeated here.

5. Regulation 54.3 – Late Payment Surcharge.

The amendment proposed is in line with Electricity (Late Payment Surcharge) Rules, 2021 issued by the Ministry of Power letter dated 22.02.2021, Hence No Comments.

6. Insertion of a proviso- threshold limit TBCB

Since HERC has already issued direction/regulation in this regard, Hence No Comments.

7. 'Useful Life' Insert Regulation 3.59 (a)

The insertion as proposed by the Hon'ble Commission is identical to CERC Regulation 2019 (Clause 73 chapter 2).

Further, as per Regulation 23 of MYT regulation 2019, the Useful life of Assets is already mentioned in the Appendix II (Depreciation Schedule) of the MYT Regulation, 2019, as such the Hon'ble Commission is requested to make suitable amendment in the Regulation 23 of the ibid Regulation, if required.

8. Amend Regulation 22.1.

No Comments being no change in respect of Transmission Business

3.10 Comments of GMR ENERGY LIMITED (Vide email dated 15.12.2021 and Memo No. GEL/EHRC/2021-22/1221 dated 15.12.2021).

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
1.	<p>Amendment of Regulation 15.3, 20 and 25 For limited purpose of benchmarking the return on equity, it is linked with 10 years Government of India bond plus risk premium based on the performance of utilities.</p> <p>Where, Base Rate (BR) shall mean last 2 years average rate (as on 01st November of the year in which ARR Petition is filed) of 10 years Government of India bond.</p> <p>Hence, the RoE for generation transmission and distribution, shall be allowed, after adding a premium over the 'Base Rate (BR)' based on the performance (both financial as well as operational parameters) of the power utilities, subject to a cap as under: -</p> <p>a) Hydro Generators: BR + 6.5% = upto 13 %</p> <p>b) Generators other than Hydro: BR + 5.5% = upto 12%</p> <p>c) Distribution Business: BR +7.5% = upto 14%</p> <p>d) Transmission Business: BR + 4.5% = upto 11%.</p> <p>Provided that RoE shall not exceed 14%.</p>	<p>For thermal generating station, transmission system, Return on equity shall be computed at the rate of 14% and at the same shall be at a rate of 16.50% for the hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage.</p>	<ol style="list-style-type: none"> 1. ROE has to be fixed and not floating for a project to have assurance for securing project finance as also attract investment as per provisions laid out in National Tariff Policy, 2016. 2. 10 years Government Bonds which are typically debt like instrument, are not comparable directly for determination of ROE. 3. Hon'ble CERC Regulations provides fixed RoE of 16.50% for hydro generating stations. Commission may like to review the averments made in justifications/ considerations done by CERC in the process. 4. Reduced RoE will keep investors away from making investment in State which will not bring local generation and may hinder quality of supply of electricity. Further, Hydro generation stations, risk associated is very high due to various reasons like land issues, environmental challenges, local & regulatory approvals, power tie-up, long gestation period etc. 5. HERC issued new RPO Regulation 2021 incorporating HPO targets for obligated entities in line with MoP notification for HPO targets which is to promote the new hydro power plants in the Country. Hence, RoE kept at lower

Sl. No.	Amended Provision of discussion paper	Proposed Provision	Rationale of proposed clause
			rate as also at floating nature for hydro generating stations will impact investor confidence in development of hydro power plants.
2.	Point no.4: Provided that Interest on Working Capital for generators shall be allowed on the basis average PLF in last 3 years and not on normative PLF. True up of the same should be limited to the actual interest on Working Capital.	Applicability of this clause can be considered only for Coal & Gas based thermal power plants.	Clarification sought: Proposed provisions applicable to Coal and Gas based Thermal Power Plants.
3.	Point no.7: Operation and Maintenance expenses: (c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 2.93% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 2.93% per annum.	Provision may be modified as below: Operation and Maintenance expenses: (c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying escalation rate of 4.77% on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 4.77% per annum.	Escalation rate considered to be 4.77% as same is also provided as per CERC Tariff Regulation 2019, the major following reasons are: 1. Major portion of O&M expenses is manpower cost increasing at average of 7-8% per annum. 2. Commission may like to review the averments made in justifications/ considerations done by CERC in the process of actual escalations which were in excess of 4.7% based on weightage for WPI and CPI respectively. 3. In view of the above, HERC has proposed very low escalation rate of 2.93% against the 4.77% adopted by CERC through CPI and WPI indices methodology.

The Commission has perused the objections / suggestions filed by GMR Energy Ltd. It is observed that that issues raised by them pertain to RoE, PLF and O&M escalations, already dealt by the Commission earlier in the present order. Hence, the same shall be read accordingly.

3.11 Comments / objections filed by Haryana Power Generation Company (HPGCL) - Vide Memo No. 226/HPGCL/REG-475 dated 14.12.2021).

I. RETURN ON EQUITY

1. While regulating tariff of electricity, the State Commission guarantees the fixed rate of return on investments besides recovering all other costs incurred towards setting up of the power

plant. The rate of return on investment is estimated based on the risk involved in the business and prevalent cost of capital.

2. The State Electricity Regulatory Commissions guided by an objective as per National Tariff Policy to incentivize investments in the power sector, has been providing fixed Return on Equity ("RoE") in the range of 14-16% to generating companies. This was in view of the fact that the cost of capital to set up the generation power infrastructure has been very high without any government support like DISCOMs where bail out packages were extended to cover the losses, and companies needed high margins as risk premium on investments to protect themselves against any volatility in demand or supply.
3. The Ld. Commission has proposed amendment to Regulation 20 of MYT thereby reduced the RoE and linked the Base Rate of RoE to floating Government securities which will make RoE volatile and dependent upon the performance of the said securities. The said proposal is against the spirit of the State Commission role for making policies to call for investment in the State for Power sector.
4. As a matter of fact, the government bond/ security is a debt instrument issued by the Central and State government of the country to finance their needs and also to regulate the money supply. When the government requires funds for infrastructure development and for financing government spending, such bonds are often issued to the public. Thus, the government will sell bonds to the public, inviting investments with assured returns.

It is the matter of fact that any authority is paying interest must have some margin money to cover their losses, thus the actual realisations on the bonds of G-Sec needs to be considered then the interest assured in the bonds.

5. In case, hypothetically, the Government of India does not need fund and offers zero return on bonds, then the RoE cannot be reduced to zero. Amidst this volatility, no generating company without having assured returns, can survive in the power sector. The proposal of aligning the RoE with floating Government Securities, is against the interest of the state and will make State of Haryana less attractive for investment in power sector and no company would like to adjudicate the tariff under the State of Haryana regulations.

The Commission has dealt at length the issue of RoE in the present order. Hence, the same is not being repeated here including the benchmarking of the base rate. It is reiterated that RoE do not find any mention in the Electricity Act, 2003. All it says that the business of generation, transmission and distribution shall be carried out on commercial basis. Hence, vide the present amendment the Commission has attempted to align RoE with the prevalent market conditions given the cost of capital. Further, hypothetical submissions do not merit consideration and the Commission, while reckoning with any parameter, is guided by a lot of inputs and its own experience over the years as well as the ground realities in terms of impact of tariff(s) on a typical consumer.

RE: AMENDMENT OF REGULATIONS 15.3, 20 AND 25 OF MYT:

6. HPGCL strongly recommends that the net RoE should be exclusive of tax and any burden of the tax needs to be pass through as adopted by other ERCs/CERC in the matter to provide equitable field to all entities covered under the MYT regulation of the Ld. State Commission. Thus, the recommendation of the Hon'ble Commission is highly appreciable and HPGCL has no objection to proposed amendment to Regulation 25 of the MYT, 2019.

RE: AMENDMENT OF REGULATION 20 OF MYT

a) *Proposed amendment in RoE shall disregard National Tariff Policy, 2016 and Electricity Act, 2003*

7. It is pertinent to bring to the notice of the Ld. Commission that the proposed volatility and reduction in RoE by amending the Regulation 20 of MYT, shall disregard the fundamental objective of National Tariff Policy, 2016 ("Tariff Policy") and Electricity Act, which *inter-alia* cast an obligation upon the State Commission to promote adequate investment in power sector in order to incentivize the generators to set up the power plants. The relevant part of Tariff Policy and the provision of Electricity Act, are extracted below for your reference:

National Tariff Policy, 2016

"1.3 It is therefore essential to attract adequate investments in the power sector by providing appropriate return on investment as budgetary resources of the Central and State Governments are incapable of providing the requisite funds. It is equally necessary to ensure availability of electricity to different categories of consumers at reasonable rates for achieving the objectives of rapid economic development of the country and improvement in the living standards of the people.

1.4 Balancing the requirement of attracting adequate investments to the sector and that of ensuring reasonability of user charges for the consumers is the critical challenge for the regulatory process. Accelerated development of the power sector and its ability to attract necessary investments calls for, inter alia, consistent regulatory approach across the country. Consistency in approach becomes all the more necessary considering the large number of States and the diversities involved."

Electricity Act

"Section 61. (Tariff regulations):

The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely:-

(c) the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;

(d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner; [...]

(i) the National Electricity Policy and tariff policy: [...]"

8. Evidently, it is incumbent upon the Ld. Commission by virtue of Section 61 (c) of Electricity Act, to frame a regulation which promotes optimum investment in the sector. Further, Section 61 (d) of the Electricity Act also make its obligatory and categorically clear that tariff regulations should ensure recovery of the cost of the electricity in a reasonable manner. It is pertinent to note that providing appropriate incentive in form of RoE is important stepping stone for ensuring optimum investment in the sector and for recovery of the cost of electricity. Therefore,

in view of the same, it is submitted that it is incumbent upon the Ld. Commission to ensure that tariff regulations are guided and promulgated in a manner that leads to better return in the investment, optimum capital formation and recovery of the cost of the electricity in a reasonable manner. However, by reducing the RoE in proposed amendment, the Ld. Commission act is contrary to statutory prescription and ultra-vires the same.

9. Further, it is also clearly established from plain reading of the Section 61 (i) of the Electricity Act that it is obligatory for the Ld. Commission to frame tariff regulations in conformity with the principles laid down under the Tariff Policy. Clause 1.3 and 1.4 of Tariff Policy categorically make it incumbent upon the State Commission to facilitate optimum investment in the power sector by providing appropriate return on investment/ RoE to the generating companies. With the reduction and volatility in RoE by pegging it to floating government securities vide the proposed amendment in Regulation 20 of MYT, it will disincentive the investors/ generating companies to make investment in the State of Haryana unlike the other states where RoE is not floating but firmed in the range of 14-16%.
10. Ld. Commission must appreciate that the healthiness of the Electricity sector depends on the condition that all the constituents of the sector shall perform equally and also get equal opportunity to flourish in sector for betterment of the consumers. The favor to one sector i.e. DISCOMs by allowing higher RoE to Transmission & Generation may not be good for the overall growth of the sector. The Ld. Commission must appreciate that Govt has in past had given various bailout packages to DISCOMs to improve their financial health due to their higher losses. However, there have been no such financial incentives available for the Generators, who have survived all weather through its own and from the funds being mobilized through RoE. Therefore, reduction in RoE and linking the same with G-Sec would make the Generating Company also vulnerable and may increase additional burden on the Government, as the same would then also become dependent on the capital and subsidy contribution for its survival.
11. The higher RoE allowed to DISCOMs than Generating / Transmission business be seen as encouragement to non-performing sector and discouragement to back bone of the DISCOMs i.e. Generator/Transmission sector. The Ld. Commission must appreciate that equitable field in the matter may be provided to all the entities of the power sector for overall growth of the sector which would in effect serve the consumer interest properly.
12. In view of the above, HPGCL being the generating entity opposes the proposed changes regarding RoE in the MYT Regulations, 2019.

The Commission has considered the submissions / objections filed on the issue of RoE by placing reliance on Section 61 (c) of the Electricity Act, 2003 as well as the National Tariff policy. The Commission has already dealt with the issue. Hence, the same is not being reproduced here. Further, it needs to be noted that the premium over the base rate has been determined keeping an eye on the associated business risks and not performing / non-performing sectors as such.

13. Reference could be made to the RoE allowed by other State Regulatory Commissions within their respective States which clearly reflects the future road map for investment in the State of Haryana Vis-à-vis other states in the country:

State	RoE
CERC	Base rate of 15.50% for thermal generating station, transmission system including communication system and run-of- river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of- river generating station with pondage.
Andhra Pradesh	shall be determined at the beginning of the Control Period after considering CERC norms, Generating Company's proposals, previous years' D/E mix, risks associated with generating business, market conditions and other relevant factors
Chhattisgarh	14%
Gujarat	14%
Karnataka	15%
Kerala	14%
Maharashtra	14%
Punjab	15.50%
Rajasthan	15.50%
Tamil Nadu	14%
Telangana	15.50%

14. In view of the fixed (not linked to government securities) and higher RoE in other states, the basic premise of attracting investment in the State of Haryana becomes futile, as the generators shall prefer to opt for other States and enter into long term contract with the DISCOMs of concerned states on the basis of tariff discovered by other ERCs/CERC.
15. The proposed amendment where the returns are not firmed while linked to Government securities, no generating company would be incentivized to invest in the State of Haryana, leading to burdening of consumers, as major players of generating companies would prefer to opt out in the composite scheme thus, lowering of the RoE or making it volatile as per Government Securities, leads to investment in generation/transmission/distribution less attractive in the State. Therefore, IPP model which is being encouraged by the Ld. Commission, may not become attractive, resulting in impact on overall health of the power sector of the State of Haryana.
16. In view of the fact that all the State Regulatory Commissions/ CERC are giving the fixed RoE to the Generating / Transmission/Distribution sector, the same should be extended for Haryana entities also. The efforts of the Hon'ble Commission should be making the State more attractive for investment instead of discouraging the participants in the power sector to make investment in the other States.
17. At this stage, it is worthwhile to note that Tariff Policy also prescribes that in order to have accelerated development of the power sector and its ability to attract necessary investments within the country, there must be consistent regulatory approach across the country. In view of

this, the volatility and inconsistent reduction in RoE within the State of Haryana in comparison to other States, shall defeat the objective of Tariff Policy and Electricity Act.

b) *Ld. Commission to follow RoE as notified by Ld. CERC in terms of National Tariff Policy, 2016 and Electricity Act, 2003*

18. Further, Clause 5.11 of the Tariff Policy categorically provides that return on investment/ RoE should be determined in a manner that it not only recovers the cost of investment but also generates reasonable surplus for growth of the sector. Considering this policy objective, the Tariff Policy further stipulates that Ld. Central Electricity Regulatory Commission (“CERC”) would notify, from time to time, the rate of RoE for generation and transmission projects keeping in view the assessment of overall risk and the prevalent cost of capital. The said rate of RoE shall then be followed by the other State Electricity Regulatory Commissions for their respective states.

19. The relevant part of Clause 5.11 of Tariff Policy is reproduced herein below for your ready reference which reads as following:

National Tariff Policy, 2016

“5.11 [...]

a) Return on Investment

Balance needs to be maintained between the interests of consumers and the need for investments while laying down rate of return. Return should attract investments at par with, if not in preference to, other sectors so that the electricity sector is able to create adequate capacity. The rate of return should be such that it allows generation of reasonable surplus for growth of the sector.

The Central Commission would notify, from time to time, the rate of return on equity for generation and transmission projects keeping in view the assessment of overall risk and the prevalent cost of capital which shall be followed by the SERCs also. The rate of return notified by CERC for transmission may be adopted by the SERCs for distribution with appropriate modification taking into view the risks involved. For uniform approach in this matter, it would be desirable to arrive at a consensus through the Forum of Regulators.”

[emphasis laid]

Electricity Act

“Section 61. (Tariff regulations):

The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely:-

(a) the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees; [...]”

20. Clearly, Tariff Policy and Electricity Act both obligates a State Commission to follow the RoE notified by the Ld. CERC after making careful assessment of overall risk and the prevalent cost of capital in the sector. It may be noted that clause 5.11 of Tariff Policy mandates the State Commissions to follow the RoE for generation notified by Ld. CERC however in case of RoE for transmission, State Commission has discretion to adopt it with certain modifications.

21. Having regard to this, Ld. HERC ought to follow the RoE as prescribed by the Ld. CERC which shall be in consonance with the RoE fixed by other State Regulatory Commissions.

All the aforementioned issues have been deliberated by the Commission earlier in the present order and hence the same is not being reproduced here.

22. Regulation 30 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (“CERC Tariff Regulations”) *inter-alia* provides that RoE shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of- river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of- river generating station with pondage. Clearly, Ld. CERC allows fixed base rate for computation of RoE unlike the proposed amendment suggested by Ld. Commission where the base rate of RoE has been pegged to volatile Government Securities and capped at 12-13% for generators.
23. Further, Ld. CERC while deciding 16.5% RoE for hydro generating stations for FY 2019-24 has observed that in the initial years, debt-equity ratio is close to normative debt: equity ratio of 70:30 and this high debt-equity ratio during the construction phase means higher risk for the equity holders during this period and hence, the expected returns are higher. However, once the plant is operational, the debt-equity ratio will reduce due to debt repayments made during the term of the loan and hence, lower the risk for the equity holder. Once all the debt is re-paid, the financial risk is reduced to that of servicing only working capital requirements. As the risk profile reduces over the life of the project, Ld. CERC is of the view that, barring few exceptions, the cost of equity for regulated entities in the power sector works out to be in the range of 12%-15%.
24. For determining the market return, the Ld. CERC in its Tariff Regulation has considered the returns provided by the BSE Sensex over the period from April 2001 to June 2019, as a proxy for the historical returns provided by the Indian equity market and the average annual growth rate of the BSE Sensex over the period of 2001–2019 (Q-1) works out to around 17.00%.
25. Finally, the Hon’ble CERC had ruled that the cost of equity arrived at using CAPM is in line with the existing rate of 16.50% for hydro generating stations in the Tariff Regulations.
26. It is also pertinent to note here that Electricity Act under Section 61 (a) obligates the State Commission to be guided by the principles and methodologies of Ld. CERC while determining the tariff including the RoE. Ld. Commission vide proposed amendment in Regulation 20 of MYT has completely disregarded the methodology of Ld. CERC in relation to determination of RoE and changed the premise of RoE by linking it to Government securities. The proposed RoE is lower and volatile in comparison to RoE prescribed by Ld. CERC and other State Commissions.
27. The Hon’ble Appellate Tribunal for Electricity (“APTEL”) vide Order dated 02.03.2012 passed in Appeal No. 76 of 2011- NTPC vs. CERC &Ors, has also reiterated that the State Commission shall be guided by the principles and methodologies specified by the Central Commission for

determination of tariff which will avoid discrimination between a licensee governed by the Ld. CERC and another remaining under the jurisdiction of the State Commission. The relevant observation is reproduced herein below:-

*“42. [...] Section 61 of the Act, 2003 thus:- “The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in so doing, shall be guided by the following, namely:- a) The principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees. **” In plain terms when a State Commission in its own regulations provides for principles and methodologies then obviously the said Commission has to follow its own regulations. But there is a rider which is that the principles and methodologies as would be provided for in the State Regulations shall be guided by the principles and methodologies specified by the Central Commission for determination of tariff. Again, when there is no existence of any State Regulations at all the State Commission is not debarred from determining tariff but in doing so it shall be guided by the principles and methodologies of the CERC. The rationale is that there must not be a dichotomy between the two laws that would have the ultimate effect of bringing about a discrimination between a licensee governed by the CERC and another remaining under the jurisdiction of the State Commission. [...]”*

c) Discrimination between HPGCL and other generating companies

28. HPGCL being the generating entity opposes the proposed changes regarding RoE in the Tariff Regulations. As a matter of fact, HPGCL is contributing only 20% of the power requirement in the present scenario and balance power is being requisitioned from the sources which are not covered by the extant Tariff Regulations of the Ld. Commission. Therefore, the proposed amendment will severely impact the investment of State Government made in HPGCL and its returns, whereas the other entities which are not covered under the present tariff regulations shall receive adequate return under tariff regulations of other States and in turn spends money in refurbishment or expansion in RE sector.

d) No reason provided necessitating reduction and change in the premise of RoE

29. Ld. Commission vide proposed amendment in Regulation 20 of Tariff Regulations, has not only reduced the RoE but also changed the premise of RoE by pegging the same to the performance of Government securities in contradiction to the RoE provided by Ld. CERC. No reason for proposing such amendment in RoE or deviating from the RoE provided by Ld. CERC, has been prescribed in the Discussion Paper for the sake of clarity to the stakeholders. It submitted that reasoning is one of fundamental premise for any regulatory action which has flavor of legislative function, therefore, by not providing the reasons for the same, the Ld. Commission has violated very basic premise and edifice of the regulators' discipline.

30. Further, the rate of return on investment is estimated based on the risk involved in the business and prevalent cost of capital. No study or analysis has been cited in the Discussion Paper which categorically and unambiguously reflects that the quantum of cost and risk of investment in the

power sector has decreased over the years which warrants reduction in RoE for the investors of State of Haryana.

e) Draft Regulation pertaining to RoE violates Section 181 of the Electricity Act:

31. The proposed amendments under Tariff Regulations have been brought out by the Ld. Commission by exercising power conferred under Section 181 of Electricity Act. Section 181 vests power of delegated/ sub-ordinate legislation upon the Ld. Commission to frame regulations in consistent with the provisions of the Act. Section 181 of the Electricity Provides:
Section 181. (Powers of State Commissions to make regulations): ---

(1) The State Commissions may, by notification, make regulations consistent with this Act and the rules generally to carry out the provisions of this Act

32. It is submitted that Section 181 of the Electricity Act clearly mandates Ld. Commission to frame regulations consistent with the Electricity Act. However, as demonstrated above, the present Draft Regulations, particularly, in relation to Regulation 20 of the MYT, stands in violation of the Section 61 of the Electricity Act, therefore, beyond the scope of the Section 181 of the Electricity Act, and in view of the same such amendments in the MYT Regulations ought not be brought by the Ld. Commission.

33. In this regard, reliance is placed on the Judgement of the Hon'ble Supreme Court in *PTC India Ltd. Vs. CERC [(2010) 4SCC 603]*, wherein it was held:

"28...

A holistic reading of the 2003 Act leads to the conclusion that regulations can be made as long as two conditions are satisfied, namely, that they are consistent with the Act and that they are made for carrying out the provisions of the Act."

34. Further, in *Gujarat Urja Vikas Nigam Limited vs. Solar Semiconductor Power Company (India) Private Limited and Ors.*, reported as (2017) 16 SCC 498, Hon'ble Supreme Court held:

"35. Under Regulation 81, the Commission is competent to adopt a procedure which is at variance with any of the other provisions of the Regulations in case the Commission is of the view that such an exercise is warranted in view of the special circumstances and such special circumstances are to be recorded in writing. However, it is specifically provided Under Section 181 that there cannot be a Regulation which is not in conformity with the provisions of the Act or Rules."

35. In view of above judgements and legal position, it is humbly prayed before this Ld. Commission to kindly drop amendment in relation to Regulation 20 and the linking of the same to G-Sec may not be considered by this Ld. Commission in interest of consumers.

f) Sub-ordinate or delegated legislation cannot travel beyond the Parent Statute:

36. Further, Section 61 of the Electricity Act read with Tariff Policy (which has statutory flavour as per Section 3 of the said Act), obligate the State Commission to facilitate adequate investment in the power sector and to follow the methodologies and tariff principles notified by the Ld. CERC. However, the proposed amendment in the RoE provisions of Tariff Regulations which have been brought out by exercising delegated power of legislation, disregards the Tariff Policy.

37. It is a settled principle of law that the rules/ regulations framed or amended by virtue of power of delegated legislation, ought to be so framed/ amended for carrying out the purposes of the parent Act. Such rules/ regulations cannot travel beyond the four corners of its parent statute itself.

38. The Hon'ble Supreme Court has held in *State of Tamil Nadu & Anr. Vs. P. Krishnamurthy & Ors.* (2006) SCC 517 that any subordinate legislation or part thereof, which does not conform to the object, scheme and provisions of the parent Act under which it is made, is invalid. The relevant observations of the Hon'ble Apex Court is reiterated below:

"16. The court considering the validity of a subordinate legislation, will have to consider the nature, object and scheme of the enabling Act, and also the area over which power has been delegated under the Act and then decide whether the subordinate legislation conforms to the parent statute. Where a rule is directly inconsistent with a mandatory provision of the statute, then, of course, the task of the court is simple and easy. But where the contention is that the inconsistency or non-conformity of the rule is not with reference to any specific provision of the enabling Act, but with the object and scheme of the parent Act, the court should proceed with caution before declaring invalidity."

39. Further, in *Mahalakshmi Sugar Mills Company Ltd. Vs. Union of India*, (2009) 16 SCC 569, the Hon'ble Supreme Court again observed that the validity of subordinate legislation may be questioned on the following grounds:-

"51.From these decisions, it may be deduced that validity of subordinate legislation may be questioned on the ground that:

(a) it is ultra vires the Constitution;

(b) it is ultra vires the parent Act;

(c) it is contrary to the statutory provisions other than those contained in the parent Act;

(d) law-making power has been exercised in bad faith;

(e) it is not reasonable; and

(f) it goes against legislative policy, and does not fulfil the object and purpose of the enabling Act."

(emphasis laid)

40. In *Shri Sitaram Sugar Co. Ltd. Vs. Union of India* reported as AIR1990SC1277, the Constitution Bench of the Hon'ble Supreme Court reiterated that

"47. Power delegated by statute is limited by its terms and subordinate to its objects. The delegate must act in good faith, reasonably, intra vires the power granted, and on relevant consideration of material facts. All his decisions, whether characterised as legislative or administrative or quasi-judicial, must be in harmony with the Constitution and other laws of the land. They must be 'reasonably related to the purposes of the enabling legislation [...]".

41. Further, the Hon'ble High Court of Rajasthan in *Prabhudas Swami And Anr. vs State Of Rajasthan And Ors.* reported as AIR 2003 Raj 190, observed the implications of the sub-ordinate legislation which fails to conform to the provisions and objectives of the parent Act. The following observation of the Hon'ble Court is relevant for your consideration:

"[...] The doctrine of ultra vires envisages that a rule making body must function within the purview of the rule making authority conferred on it by the parent Act. As the body making rules has no inherent power of its own to make rules, but derives such power only from the statute, it has necessarily to function within the purview of the statutes. Delegated Legislation should not travel beyond the purview of the parent Act. If it does, it is ultra vires and cannot be given any effect, Ultra vires may arise in several ways; there may be simple excess of power over what is conferred by the parent Act; delegated legislation may be inconsistent with the provisions of the parent Act, or statute law or the general law, there may be non-compliance with the procedural requirement as laid down in the parent Act. It is the function of the Courts to keep all authorities within the confines of the law by supplying the doctrine of ultra vires."

42. In view of the above, the proposed amendment in the Tariff Regulations ought to be in consistent with the objective and purpose of Tariff Policy and Electricity Act.

g) Proposed amendment in RoE brings regulatory uncertainty in the power sector

43. Clearly, the proposed amendment in RoE by linking it to the Government Securities, shall bring unassured/ insecure rate of return to the investors which in turn leads to regulatory uncertainty for the generators in the State of Haryana.

44. The Hon'ble Supreme Court in its judgment passed in *Mishrilal v Virendranath* [reported as (1999) 4 SCC 11] (Para 16) has recognized the importance of certainty in the field of law in following terms:

"Taking recourse to the doctrine would be an imperative necessity to avoid uncertainty and confusion. The basic feature of law is its certainty and in the event of there being uncertainty as regards the state of law — the society would be in utter confusion the resultant effect of which would bring about a situation of chaos — a situation which ought always to be avoided. "

45. Further, it is also a well settled principle of law that a consistent practice followed should not be changed. The Ld. Commission vide Tariff Regulations have been providing guaranteed rate of return to the generating companies. The proposed volatile rate of RoE linked to Government securities shall disturb the equilibrium created by the guaranteed RoE to investors. Therefore, Ld. Commission ought to prescribe assured and firm RoE for the generating companies in the range consistent with the Ld. CERC and other State Commission in order to attract adequate investment in generation capacity of the State. For this, reference in this regard may be made to the decision of the Hon'ble Supreme Court in *Indian Metal and Ferro Alloys Ltd v Collector of Central Excise* 1991 SUPP (1) SCC 125.

h) When a statute prescribes to do a particular thing in a particular manner, the same shall be done in that manner alone

46. It is well settled in law that when a statute prescribes to do a particular thing in a particular manner, the same shall not be done in any other manner than prescribed under the law. Having

regard to this, Ld. Commission ought to propound the amendment in the Tariff Regulations including in RoE in consistent with the provisions of its enabling Act i.e. Electricity Act which obligates the State Commission to facilitate adequate investment in the power sector and to follow the methodologies and tariff principles notified by the Ld. CERC.

47. The said legal proposition is well recognized by the Hon'ble Supreme Court in *State of Uttar Pradesh Vs. Singhara Singh* reported in AIR 1964 SC 358, it was observed that

"7. In Nazir Ahmed's case, 63 Ind App 372: (AIR 1936 PC 253 (2)) the Judicial Committee observed that the principle applied in Taylor v. Taylor, (1876) 1 Ch.D 426 to a Court, namely, that where a power is given to do a certain thing in a certain way, the thing must be done in that way or not at all and that other methods of performance are necessarily forbidden, applied to judicial officers making a record under S.164 and, therefore, held that the magistrate could not give oral evidence of the confession made to him which he had purported to record under S.164 of the Code. It was said that otherwise all the precautions and safeguards laid down in Ss.164 and 364, both of which had to be read together, would become of such trifling value as to be almost idle and that "it would be an unnatural construction to hold that any other procedure was permitted than that which is laid down with such minute particularity in the sections themselves.

8. The rule adopted in Taylor v. Taylor (1876) 1 Ch D 426 is well recognised and is founded on sound principle. Its result is that if a statute has conferred a power to do an act and has laid down the method in which that power has to be exercised, it necessarily prohibits the doing of the act in any other manner than that which has been prescribed. The principle behind the rule is that if this were not so, the statutory provision might as well not have been enacted. A magistrate, therefore, cannot in the course of investigation record a confession except in the manner laid down in S.164. The power to record the confession had obviously been given so that the confession might be proved by the record of it made in the manner laid down. If proof of the confession by other means was permissible, the whole provision of S.164 including the safeguards contained in it for the protection of accused persons would be rendered nugatory. The section, therefore, by conferring on magistrates the power to record statements or confessions, by necessary implication, prohibited a magistrate from giving oral evidence of the statements or confessions made to him."

48. The said proposition is also reiterated *Captain Sube Singh Vs. Lt. Governor of Delhi* reported in AIR 2004 SC 3821 wherein the Supreme Court, at paragraph 29, held as follows:

"29. In Anjum M.H. Ghaswala a Constitution Bench of this Court reaffirmed the general rule that when a statute vests certain power in an authority to be exercised in a particular manner then the said authority has to exercise it only in the manner provided in the statute itself. (See also in this connection Dhanajaya Reddy Vs. State of Karnataka). The statute in question requires the authority to act in accordance with the rules for variation of the conditions attached to the permit. In our view, it is not permissible to the State Government to purport to alter these conditions by issuing a notification under Section 67(1) (d) read with sub-clause (i) thereof."

49. Suggestions on Return on Equity (RoE):

- (i) Ld. HERC ought to follow the methodologies and principles of RoE provided by Ld. CERC which shall be in consonance with the RoE fixed by other State Regulatory Commissions.

- (ii) The National Tariff Policy, 2016, which is a statutory policy as per Section 3 of Electricity Act, prescribes that, firstly, the return on investment should be such that it attracts adequate investment in power sector. Secondly, the RoE notified by the Ld CERC shall be followed by the State Commissions also. Ld. CERC has provided the fixed RoE, the same shall be extended to all Generators covered under the instant regulations.
- (iii) Ld. HERC ought to allow fixed and not floating RoE in the range of 15-16% as is being allowed in by Ld. CERC and in the other States which shall bring consistency and optimum investment in the State of Haryana.
- (iv) The assured return on investment consistent with the other States shall avoid discrimination between the generating companies.

II. GROSS CALORIFIC VALUE

RE: AMENDMENT OF REGULATION 31(c) AND 31(d) OF MYT

50. The proposed amendment in Regulation 31(c) and (d) of MYT while placing reliance on the CERC Regulations amends the Gross Calorific Value ("GCV") of coal from 'as fired' basis to 'as received' basis. Further, as per CERC Tariff Regulations, the Energy Charge Rate (ECR) has been calculated as under:

*"43. Computation and Payment of Energy Charge for Thermal Generating Stations
(1) The energy charge shall cover the primary and secondary fuel cost and limestone consumption cost (where applicable), and shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during the calendar month on ex-power plant basis, at the energy charge rate of the month (with fuel and limestone price adjustment). Total Energy charge payable to the generating company for a month shall be:*

Energy Charges = (Energy charge rate in Rs./kWh) x {Scheduled energy (ex-bus) for the month in kWh}

(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:

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

(b) For gas and liquid fuel-based stations:

$$ECR = SHR \times LPPF \times 100 / \{(CVPF) \times (100 - AUX)\}$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

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;

(b) Weighted Average Gross calorific value of primary fuel as received, in kCal per kg, per litre or per standard cubic meter, as applicable for lignite, gas and liquid fuel-based stations;

(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:

CVSF = Calorific value of secondary fuel, in kCal per ml;

ECR = Energy charge rate, in Rupees per kWh sent out;

SHR = Gross station heat rate, in kCal per kWh;

LC = Normative limestone consumption in kg per kWh;
LPL = Weighted average landed cost of limestone in Rupees per kg;
LPPF = Weighted average landed fuel cost 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 fuel cost of primary fuel shall be arrived in proportion to blending ratio); SFC = Normative Specific fuel oil consumption, in ml per kWh;
LPSFi = Weighted Average Landed Fuel Cost of Secondary Fuel in Rs./ml during the month:

Provided that energy charge rate for a gas or liquid fuel-based station shall be adjusted for open cycle operation based on certification of Member Secretary of respective Regional Power Committee during the month.

(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 pre-condition, unless otherwise agreed specifically in the power purchase agreement: Provided further that the weighted average price of alternative source of fuel shall not exceed 30% of base price of fuel computed as per clause (5) of this Regulation: Provided also that where the energy charge rate based on weighted average price of fuel upon use of alternative source of fuel supply exceeds 30% of base energy charge rate as approved by the Commission for that year or exceeds 20% of energy charge rate for the previous month, whichever is lower shall be considered and in that event, prior consultation with beneficiary shall be made at least three days in advance.”

51. HPGCL would like to refer the above-mentioned Regulation 43 of CERC Tariff Regulations and request the Ld. Commission to adopt the same in totality, else HPGCL has to bear the loss of coal from unloading end ('as received' basis) to firing of the coal. In view of this, HPGCL earnestly requests the Ld. Commission to either apply the CERC Tariff Regulations *in toto* or the existing Regulation 31 of MYT may be allowed to prevail.

52. HPGCL seeks to submit the gist of the ECR (Coal GCV) prevalent in other States:

State	ECR (Coal GCV)
Andhra Pradesh	As fired
Chhattisgarh	As received provided adjustment of total moisture content shall be computed as per CERC formula
Gujarat	As fired
Karnataka	As received in line with CERC
Kerala	As received in line with CERC
Maharashtra	As received in line with CERC with adjustment of 150Kcal/Kg for their state generating units
Punjab	As received in line with CERC
Rajasthan	As received in line with CERC
Tamil Nadu	As fired
Telangana	As fired

53. Further, HPGCL would like to make the submission that the matter needs to be seen in different aspect for 'Base Load' Station, as the less scheduling leads to accumulation of coal stock at the HPGCL Plants and leads to GCV deterioration which is the direct loss accounted to HPGCL. The Ld. Commission may take the note of the same and frame the Regulations allowing to pass through the coal degradation due to coal stocking and loss of GCV on account of low Power Load Factor (PLF), as the scheduling of plant is sole prerogative of the DISCOMs and the coal stock has also been created for the beneficiaries. Thus, the loss of GCV shall be allowed to pass through, else the losses have to be incurred by HPGCL in the matter.
54. Suggestions on Gross Calorific Value (GCV)
- (i) The loss of GCV may be allowed to pass through. The Ld. Commission may take the note of coal degradation due to coal stocking and loss of GCV on account of low PLF, as the scheduling of plant is sole prerogative of the DISCOMs and the coal stock has also been created for the beneficiaries.
 - (ii) HPGCL earnestly requests the Ld. Commission to either apply the CERC Tariff Regulations *in toto* or the existing Regulation 31 of MYT may be allowed to prevail.
 - (iii) The Ld. Commission is requested to retain GCV 'as fired' basis existing under Regulation 31 of MYT, as the same is only impacting HPGCL Stations. In any case, any change proposed by the Ld. Commission must address all the aspects and no loss to be caused to the generating entity.
 - (iv) Further, HPGCL is of the considered view that the display of voluminous data at website doesn't serve the fruitful purpose. In any case, all the audit of HPGCL being govt entity, has been carried out by govt agencies. However, the bill raised along with status of PSL shall be allowed to upload on the website.
 - (v) The Hon'ble Commission being the guardian of the State should impose conditions equally, like asking SLDC to upload State Energy Account mandated under IEGC/EA,2003 on website capturing all sources (SToA/MToA/LToA), and in turn DISCOMs should also be mandated to display power purchase cost of the month on the basis of SEA of the State capturing all sources (viz SToA/MToA/LToA) while directing Gencos to upload the billing data online. The Ld. Commission is requested to make suitable amendments in the regulations, to create transparency in the system.

The Commission has considered the submissions of the intervener on the issue of GCV and in the considered view of the Commission, GCV of Coal ought to be reckoned with on "as received basis" as per the draft. The intervener, who is an intra-state generator procuring coal from sources more than 1000 KMs, ought to be vigilant about the grade slippages and accurately quantify the GCV of coal as received by them from the CIL and its subsidiaries instead of trying to work back GCV of coal fired. Hence, the Commission finds no merit in the contention of the intervener, according rejects the same.

III. INTEREST ON WORKING CAPITAL

RE: AMENDMENT OF REGULATION 22 OF MYT; INSERTION OF PROVISIO

55. The Ld. Commission vide proposed insertion of proviso to Regulation 22 of MYT, has recommended that Interest on Working Capital (“IWC”) for generators shall be allowed on the basis of average PLF in last 03 years and not on the basis of normative PLF. Further, True up of the same should be limited to actual IWC.
56. It has been observed that the Ld. Commission has erroneously considered the basis of IWC on the PLF basis, the same can be understood with the following examples:
- (i) The components for considering the IWC as per Regulation 22 of MYT is as under:
 - a) Cost of coal for one month corresponding to normative
 - b) Cost of secondary fuel (oil) for 01 month corresponding to the normative availability
 - c) Normative O&M expenses for 01 month
 - d) Maintenance spares @ 10% of the O&M expenses
 - e) Receivables equivalent to fixed and variable charges for one month for sale of electricity corresponding to normative availability.
 - (ii) A bare perusal of the above makes it clear that IWC is allowed on the expenditure incurred by the generating company for making the plant available irrespective of its scheduling on monthly billing cycle. For making the plant available, the following actions are required to be taken:
 - a) The generating company has to arrange coal for next month by making advance payments in previous month. Thus, actual liability would come out to be for two months, if the time of receivable be seen with payment of bills after 30 days of the concluding month. The same cannot be correlated to scheduling of plants because as per extant regulations, necessary coal stock needs to be arranged for declaration of the plant availability.
 - b) The unconsumed coal stock of previous month would attract the IWC for next month till the same has not been consumed and the bill of the same has not been realized even in the scenario of no addition in coal stock in future months. Thus, the implication is many folds on the generating company in the matter. Therefore, once the mandate of fuel availability is there with generator for 30 days, it is inappropriate to link the same with PLF in the matter.
 - c) The explanation given above also holds true for Oil, as the same is recovered under ECR subject to true up under Regulation 29 of the MYT, 2019. Thus, due to lower PLF, the same remains unrecovered and storage of requisite fuel also have the financial implication in the matter and it cannot be captured in true sense. Therefore, it is appropriate to consider all the IWC on true up basis.
 - d) Normative O&M for 01 month is to be incurred as per actual requirement and are subject to ceiling of the normative recovery. Thus, it is appropriate to consider the O&M on normative basis, as the expenditure on account of O&M through contracts or in-house has to be considered on the basis of Normative plant availability only. Thus, reduction in the same would hamper the already strained HPGCL Units which are suffering due to step treatment in scheduling on account of Point of Connection (POC) charges and losses issue and on account of metallurgical degradation of the units due to erratic scheduling of ‘Base Load’ plants.
 - e) Receivable are to be considered as per regulations as for a low PLF plant, long holding of coal stock leads to its degradation which results in direct loss to the

generating company. Therefore, receivables are also required to be recovered as per normative basis.

57. It is clear from the above, the IWC needs to be recovered on normative basis and any reduction on the same is going to affect the health of generating company in the matter.
58. Further all State Commissions and the Ld. CERC are also allowing the IWC components on normative basis with true-up on interest rates only. Thus, no inferior conditions to be imposed vide the proposed amendment in MYT which results in hampering the interest of the State Entities and investment in the State of Haryana.
59. Reference may be made to the allowed IWC by other State Commissions as under:

State	IWC
Andhra Pradesh	Target availability for full recovery of FC-80%
Chattishgarh	Normative
Gujarat	Target availability-85%
Karnataka	Normative
Kerela	Approved generation
Maharashtra	Target availability-85%
Punjab	Normative
Rajasthan	Target availability-83%
Tamil Nadu	Target availability
Telangana	Target availability
CERC	Target availability

60. Further the reference is invited to the IWC calculations methodology of Ld. CERC as under:
“ 34. Interest on Working Capital: (1) The working capital shall cover:
(a) For Coal-based/lignite-fired thermal generating stations:
(i) Cost of coal or lignite and limestone towards stock, if applicable, for 10 days for pit-head generating stations and 20 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;
(ii) Advance payment for 30 days towards cost of coal or lignite and limestone for generation corresponding to the normative annual plant availability factor;
(iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;
(iv) Maintenance spares @ 20% of operation and maintenance expenses including water charges and security expenses;
(v) Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on the normative annual plant availability factor; and
(vi) Operation and maintenance expenses, including water charges and security expenses, for one month.”

On perusal of the above, certain other components like advance payments to coal companies, water charges and security expenses are also covered while calculating IWC.

Thus, holistic view needs to be taken by the Commission and align the regulation of IWC at par with CERC regulations to provide the equitable field of operations for HPGCL.

61. Matter Sub-judice in APTEL on the principle adopted by the Commission for allowing PLF based IWC

For proposed amendment in IWC norms for HPGCL Plants, the reliance has been made on the orders dated 18.02.2021 & 24.04.2020 passed by the Ld. Commission. HPGCL submits that both the said orders have already preferred an appeal being Appeal No APL 150/2021 & DFR 216/2020 respectively before Hon'ble APTEL involving the issues of allowing IWC on PLF basis, employee cost and others. Since the orders are *sub-judice* and have not attained finality, the Ld. Commission may keep the proposed amendment in abeyance subject to the outcome of the appeals pending before the Hon'ble APTEL.

62. Suggestions on Interest on Working Capital (IWC)

Without prejudice to the rights and contentions of the HPGCL pending in the appeal at APTEL. HPGCL would like to suggest that IWC needs to be recovered on normative basis. All State Commissions and the Ld. CERC are allowing the IWC components on normative basis with true-up on interest rates only. Thus, the same should be extended to HPGCL to provide equitable field of operations.

The Commission has considered the objections of the intervener on the issue of interest on working capital. As the same has already been dealt by the Commission earlier, in the present order, the same is not being reproduced here.

IV. REBATE AND LATE PAYMENT SURCHARGE

RE: AMENDMENT OF REGULATION 43 AND 54.3 OF MYT

63. The Hon'ble Commission must appreciate that the timely payment of receivables is utmost important for sustainability of any entity against the services rendered in terms of Generation/Transmission/Distribution. Thus, any mismatch in terms of rebate and surcharge, shall adversely impact the financial health of the company, which may incur loss to the entity.
64. It is therefore, requested to the Ld. Commission that the balance approach may be adopted for promoting sustainability of the power sector in the State.
65. In the present proposal the balance seems to be tilted toward the distribution company to make the payments as per their comfort, as the Late payment surcharge (LPS) is aligned with LPS, thus any organization will not clear the dues, till the penal provisions are not there in the Regulations in order to protect the total financial health of the system.
66. HPGCL craves the opportunity to submit that Rebate & LPS are payment discipline mechanism and are required to be fair and reasonable. The LPS provision kept in the 2nd Amendment to MYT Regulations, 2019 is affecting HPGCL.
67. In the CERC Tariff Regulations, norms for maximum Rebate and LPS has been kept at 1.50% p.m. whereas there is large variation in Rebate and LPS rate in the 2nd Amendment of MYT Regulations which provides Rebate @ 2% p.m. and Surcharge @ 1% p.m. As per proposed amendment LPS will be linked with SBI MCLR plus 5%. The variation in the rate of Rebate & Surcharge is too high that it may impact to HPGCL. Even as per the rationale of the payment discipline, the rate of surcharge should be higher than the rebate but in the proposed amendment, the difference is there in MYT Regulation is again on increasing trend.

68. It is submitted that existing rate of LPS @ 0.04% per day comes out to 14.6% p.a. and no maximum limit has been defined in existing Regulations however as per proposed amendment the rate of the surcharge is 0.03% per day and maximum limit proposed is 15% p.a
69. In addition to above, the proposed amendment seeks to increase the due date from 30 days to 45 days from the date of presentation of the bill by the generating company, which is again against the financial interest of the generating company. It is worthy to note here that under WC components, Ld. Commission allows 30 days for receivable however in the proposed amendment, the credit period has been recommended at 45 days which is contradictory of Regulations. In case the 45 days are required to be incorporated as deemed fit by the Commission, the impact of the same on IWC may also be factored and suitably incorporated in the matter for fitness of things
70. Suggestions on Rebate and Late Payment Surcharge

The Rebate and LPS being the payment discipline mechanism, are required to be balanced and reasonable. The Ld. commission is requested that the penal provision be made in such a way that it encourages the beneficiary to opt for Rebate than delaying the payments in order to save his financial health as penal provision wouldn't impact him in any way, if such proposal to be implemented.

The Commission has amended the dispensation on rebate and early payment surcharge in line with the rules notified by the Central Government. Needless to say, the said rules ensure steady liquidity in the system for a sustainable growth of the power sector as a whole. Hence, no change in the draft, on this issue, is warranted.

V. THRESHOLD LIMIT FOR TARIFF BASED COMPETITIVE BIDDING: AMENDMENT OF REGULATION 2.2 OF MYT

The Commission is relying and encouraging the competitive tariff-based bidding for projects under section 63. In this, every IPP who participate in the bid shall ensure the returns as per CERC guidelines or Tariff Policy, 2016 whenever the project is above 100 Cr, whereas the STU which execute the projects under 100 Cr covers under section 62 of the regulations may have to go for tariff determination under the State Commission regulations, this may create imparity of operations. Thus, commission is being requested to align all the regulations in such a way as prevailing in country, so that state entities shall perform at par with any other entity with same expected returns.

The Commission is not convinced with the arguments of the intervener. The tariff discovered through competitive bidding is expected to be more efficiently than the tariff determined by the CERC / SERC u/s 62 of the Act.

VI. AMEDNMENTS RELATING TO HYDRO PROJECTS
RE: AMENDMENT OF PROVISIONS OF MYT REGARDING HYDRO PROJECTS:

71. Suggestions: It is worth to apprise that as there is no hydro potential in the State of Haryana, it is appropriate that the respective state regulations where the hydro plant are situated or the CERC Regulations as the case may be, should be relied upon instead of framing specific Regulations.
72. The Ld. Commission in its own order dated 12.05.2016 passed in HERC/PRO-11 of 2016 has taken the view that the tariff adjudicated for any of the hydro projects situated outside the state should be lowest of three i.e. respective State Commission tariff/CERC Tariff/ HERC tariff. The stand taken by the Hon'ble Commission needs to be seen in this matter as well.
73. Thus, the observations of the Hon'ble Commission in the stand taken by them in HERC /PRO-11 of 2016 may be seen while imparting any change in MYT for Hydro projects.
74. Further, HPGCL is having run of the river plants thus, the clarification needs to be made under "Design Energy" how the shortfall of the is recoverable for HPGCL WYC units.

The intervener needs to note that the Regulations already exists, the present proceeding is for amending certain provision of the existing MYT Regulations. Hence, the suggestion of the intervener is rejected as devoid of merit.

VII. OPERATION & MAINTENANCE NORMS

RE: AMENDMENT OF REGULATION 45.3 (O&M NORMS IN CASE OF TRANSMISSION BUSINESS), REGULATION 57.4 (O&M NORMS IN CASE OF DISTRIBUTION BUSINESS) AND (O&M NORMS IN CASE OF GENERATING BUSINESS)

75. Suggestions: The rationale of reducing the escalation in the Operation & Maintenance ("O&M") cost excluding Employee cost and terminal liability, has not been mentioned in Statement of Reason issued by the Ld. Commission.
76. It is the well-established fact that HPGCL is being used as peaking source instead of Base Load which leads to increase in the cost of O&M due to more metallurgical failures, and need to be compensated accordingly.
77. The CERC Tariff Regulation has also provided the escalation factor of approximately 3.50%, where the scheduling of the units are expected to be at normative parameters. HPGCL units are always have low PLF and thus, reduction in escalation on vintage plants which are designed on Base Load, will create the loss in the matter.
78. Further, the O&M expenses of a new generating station remains lower while these expenses generally increase for older plants with the passage of time. The major part of O&M expenses is incurred towards manpower.
79. Also, the O&M expenses for all power plants cannot be equated. For example, in case of hydropower projects as against thermal power plants, O&M expenses may be higher considering multiple factors such as remoteness of the location, topography and local social conditions.

80. Therefore, the Ld. Commission is requested to retain the present escalation of 4% at O&M or should follow the rate as provided by the Ld. CERC.

The Commission has considered the suggestions of the intervener on the issue of O&M escalation. The issue has already been deliberated by the Commission in the present order. Hence, the same is not re-produced here.

VIII. OPERATION & MAINTENANCE NORMS FOR HPGCL PLANTS
RE: AMENDMENT OF REGULATIONS 28(5) OF MYT

81. For proposed amendment in O&M norms for HPGCL Plants, the reliance has been made on the orders dated 18.02.2021 & 24.04.2020 passed by the Ld. Commission. HPGCL submits that both the said orders have already preferred an appeal being Appeal No APL 150/2021 & DFR 216/2020 respectively before Hon'ble APTEL involving the issues of account of employee cost and others. Since the orders are *sub-judice* and have not attained finality, the Ld. Commission may keep the proposed amendment in abeyance subject to the outcome of the appeals pending before the Hon'ble APTEL.
82. It is submitted that as per the judicial hierarchy and discipline, Hon'ble APTEL, is a court, which has supervisory and appellate jurisdiction over Ld. Commission. It is submitted that once the matter is *sub-judice* and pending, as per principles of judicial propriety and judicial discipline, Ld. Commission should restraint itself from interfering and overriding a judicial procedure established by the legislative code, such as Electricity Act. It is matter well settled that in terms of Section 110 read with 111 of the Electricity Act, Hon'ble APTEL exercised, Appellate Jurisdiction before Ld. Commission. Further, as per Section 121 of the Electricity Act, Hon'ble APTEL has supervisory and regulatory power to control functioning of the Ld. Commission.
83. It is further submitted that any interference in *sub-judice* matter before Hon'ble APTEL, in addition to violation of the Electricity Act, also tantamount to contempt of the Hon'ble APTEL.
84. In *Tirupati Balaji Developers (P) Ltd. v. State of Bihar*, (2004) 5 SCC 1, Hon'ble Supreme Court has held following in relation to hierarchical judicial system:
"9 In a unified hierarchical judicial system which India has accepted under its Constitution, vertically the Supreme Court is placed over the High Courts. The very fact that the Constitution confers an appellate power on the Supreme Court over the High Courts, certain consequences naturally flow and follow. Appeal implies in its natural and ordinary meaning the removal of a cause from any inferior court or tribunal to a superior one for the purpose of testing the soundness of decision and proceedings of the inferior court or tribunal. The superior forum shall have jurisdiction to reverse, confirm, annul or modify the decree or order of the forum appealed against and in the event of a remand the lower forum shall have to rehear the matter and comply with such directions as may accompany the order of remand. The appellate jurisdiction inherently carries with it a power to issue corrective directions binding on the forum below and failure on the part of the latter to carry out such directions or show disrespect to or to question the propriety of such directions would — it is obvious — be destructive of the hierarchical system in administration of justice. The seekers of justice and the society would lose faith in both."

85. Further, in the recent judgement of the Hon'ble APTEL - Appeal No. 97 of 2021, KPTCL vs KERC, has taken strict cognizance of the fact relating to the judicial discipline and to curb growing tendencies of the regulatory authority to abide by judicial hierarchy has passed following orders and called upon Hon'ble Chairman of the Ld. KERC for explanation:

"As is clear from the narration of the factual background, in the preceding round of appeal to this tribunal, a disapproval of the conduct of the State Commission had been expressed, it having been reminded (para 42 of judgment dated 09.05.2008) that in its capacity as a quasi-judicial body it was duty bound to adhere to judicial discipline", the attitude betrayed by "repeated attempts to bypass the dictum of this tribunal" being not conducive to the growth of the electricity sector, it instead leading to "litigation and consequent waste of public money and public time". It appears the said observations have fallen on deaf ears. Then, as noted earlier, midway the hearing on the present appeal, we had given the opportunity to the State Commission to make amends by revisiting the impugned order in light of contentions of the appellant. The State Commission declined to avail of the said opportunity knowing full well that appellant was pressing for coercive action for the willful defiance. Since there is a need to curb the growing tendency of the of the regulatory authorities at the bottom of the rung of taking liberties with the binding directives, or acting contrary to the judicially settled principles so as to deny lawful claims, reflective of whimsical, injudicious and inconsistent approach, this possibly endangering rule of law, this is an occasion to send out a strong message.

101. For the foregoing reasons, we decide and direct as under:

....

- (e) *Without prejudice to the above, this tribunal reserving its jurisdiction to take further requisite action in accordance with law for execution and enforcement of our decision(s), we call upon the Chairperson and Members of the Karnataka Electricity Regulatory Commission who rendered the impugned decision dated 16.01.2020 to show cause within four weeks hereof as to why contempt action be not initiated against them for willful defiance and disobedience of the directions contained in the above mentioned judgment dated 09.05.2008 and obstruction of the administration of justice"*

86. In view of above settled law, it is humbly prayed before this Ld. Commission to restrain from interfering in the sub-judice matter, in interest of law and equity.

The Commission has considered the objections and suggestions of the intervener on the issue of amendment in O&M applicable to HPGCL's power plants as well. The intervener may note that the order of this Commission referred to by the intervener and are under appeal before the Hon'ble APTEL has not been stayed by the Hon'ble APTEL so far. However, in unlikely case the said order(s) are set aside including any further appeal, if any, preferred in the matter, the relief may be applicable for the specific years covered by the said order(s). However, in that case the amended regulations shall be applicable prospectively.

IX. ADDITIONAL SUGGESTIONS:

RE: RECOVERY OF FIXED COST ON PLANT BASIS INSTEAD OF UNIT BASIS. (REGULATION 30 OF MYT):

87. Ld. Commission is allowing the tariff for Hydro projects on plant basis instead of unit basis. Thus, a step treatment should not be meted out to HPGCL. HPGCL is incurring losses by considering the plant availability on unit basis, whereas CERC Tariff Regulations and all State Regulations allow the recovery of fixed cost on plant basis. The same needs to be considered by the Ld. Commission while amending the MYT and equitable field may be provided in the matter.

RE: TRANSPARENCY IN POWER PROCUREMENT AND DECIDING OF APPC:

88. Indian Electricity Grid Code,2010 mandates the preparation of State Energy Account capturing power being requisitioned from all sources in the state on monthly basis. Thus, State Transmission Utility may be directed to list the monthly Energy Accounting, complete in all sense including any bilateral/ Medium- or Short-term Open Access implemented scheduled or IEX transactions.

89. Further, on the basis of State Energy Accounting, the actual power cost on monthly basis including State Transmission Utility charges and POC Charges and losses of individual sources need to be listed on HPPC website, to make the power procurement transparent. This helps to any consumer clear its doubt on the power being procured by HPPC and also display the overall power management on part of HPPC.

RE: Incorporating Suitable Regulations for MoD for the State

90. The reference is invited to UPERC Notification NO UPERC/Secretary /Regulation /516 dated 03.02.2021, where in the UPERC has made an attempt to provide the equitable field for operation for all generators covered under MoD, by allowing the certain component of PoC Charges (AC-UBC) in the MoD along with losses. UPERC has categorically directed SLDC to prepare the MoD at State Periphery by including all charges except capacity charges of the plant. The above regulation supports the contentions of HPGCL pleadings in last two ARRs filing for providing equitable playing field to all generators. Thus, the Ld. Commission may please take the note of the same provide equitable field by incorporating suitable regulations in the proposed amendments of MYT,2019.

91. It is humbly prayed that above submissions may be factored in while finalizing the Draft Amendments to the MYT Regulations, 2019. The present submissions and comments are filed in bona fide and in interest of justice.

HPGCL reserve its right to file any additional comments and make any other submissions at time of public hearing.

The Commission has not considered the aforesaid “additional suggestions” as the same are un-called for and hence beyond the scope of the present proceedings.

Additionally, the Commission has considered the submissions made regarding the need to peg RoE at a higher level for attracting investments in the infrastructure including power sector. The Commission observes that, undoubtedly, to keep the growth rate of State GDP of Haryana buoyant there is a need to ensure steady and larger flow of investments in the Socio

– Economic overheads including power. Nonetheless, the Commission cannot lose sight of the fact that India is committed to commission 500 GW of non-fossil fuel-based power plants by 2030 and also meet 50% of energy requirement from renewable energy sources as well as achieve carbon neutrality by 2070. In these circumstances requiring larger integration of renewable energy into the grid, it may not be appropriate to encourage investments in fossil fuel based thermal generation by way of higher RoE than justifiable by way of reasonable cost of capital.

HPGCL in a separate petition has requested for incorporation of the oil consumption per start up norms for 300 MW DCRTTP and 600 MW RGTPP Units of HPGCL. The Commission has considered the same and allows norms, to be added in the existing regulations, drawing proportionality from 250 MW for 300 MW machines and 500 MW for 600 MW machines. The proposed norms and those approved are as under:

Plant	Hot start up	Warm start up	Cold start up
DCR TPS (300MW) – Proposed	30KI	50KI	80KI
HERC Approved	24KI	36 KI	60 KI
RGTPS (600MW) - Proposed	40KI	60KI	110KI
HERC Approved	36 KI	60 KI	108 KI

In view of the above deliberations, the Commission approves the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2019, 2nd Amendment Regulations, 2022 as per annexure “A” attached to the present order.

The same be sent for Gazette Notification at the earliest.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 31st January, 2022.

Date: 31.01.2022

Place: Panchkula

(Naresh Sardana)

Member

(R.K. Pachnanda)

Chairman

ANNEXURE - A

HARYANA ELECTRICITY REGULATORY COMMISSION BAYS NO. 33-36, SECTOR-4, PANCHKULA – 134112

Regulation No. HERC/ /2022:- The Haryana Electricity Regulatory Commission, In exercise of the powers conferred on it by section 181 of the Electricity Act 2003 (Act 36 of 2003) and all other powers enabling it in this behalf and after previous publication, makes the following regulations to amend the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2019.

Short title, commencement, and interpretation.

- (1) These Regulations may be called the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2019, 2nd Amendment Regulations, 2022.
- (2) These Regulations shall come into force on the date of their publication in the Haryana Government Gazette.
- (3) These Regulations shall extend to whole of the State of Haryana.

2.2 Provided that threshold limit has been set by the Commission in its order dated 1st June 2021 stating that the intrastate transmission projects costing Rupees one hundred crores and more (Rs. 100 Crores plus) shall be necessarily developed through global Tariff Based Competitive Bidding (TBCB) only.

15.3 The fixed cost of generating plant (thermal or hydro) shall include the following elements:

- a) Return on Equity (RoE)
- b) Interest and financing charges on loan capital
- c) Interest on working capital
- d) Depreciation
- e) Operation and Maintenance Expenses (O&M)
- f) Foreign Exchange Rate Variation (FERV) , if any
- g) All statutory levies and taxes, if any, including taxes on income / MAT on actual basis.

20. Return on Equity

20.1. RoE for generation transmission and distribution, shall be allowed, after adding a premium over the 'Base Rate (BR)' based on the performance (both financial as well as operational parameters) of the power utilities, subject to a cap as under: -

a) Hydro Generators: BR + 6.5% = up to 13 %

Provided that the HEP with pondage or pump storage (PSP) will be eligible for an additional 1% RoE.

b) Generators other than Hydro: BR + 5.5% = up to 12%

c) Distribution Business: BR + 7.5% = up to 14%

d) Transmission Business: BR + 4.5% = up to 11%.

Provided that the Base Rate (BR) in these Regulations shall be construed as last 2 years average rate (as on 1st April of the relevant financial year) of 10 years Government of India bond.

Provided, that the RoE for generation, transmission and distribution businesses, shall be allowed, after adding a premium over the 'Base Rate (BR)' .

Provided further that RoE shall not exceed 14% in any case. SLDC business shall not be eligible for RoE.

Provided where the tariff is determined for the entire useful life of the project the RoE allowed shall not be normally re-visited during the entire tariff period. Hence, the same shall be determined at 13% with additional 1% for HEPs with pondage or pump storage (PSP) and 12% for generators other than HEPs.

22. Interest on Working Capital:

Provided that Interest on Working Capital for generators shall be allowed on the basis average PLF / CUF in the preceding 3 years.

Provided further that True up of the interest on working capital shall be limited to the actual interest on working capital

25. Income Tax

Income tax / MAT, if any, on the income stream of the generating company or the licensee (transmission, distribution) shall be treated as an expense or a pass-through component in the tariff on actual basis limited to the RoE component only.

28 (5) Operation and Maintenance Expenses (Generation)

The norms for O & M expenses (in Rs. Lac per MW) for the existing plants and the plants Commissioned on or after 1st April, 2021 shall accordingly be as under:-

Plant (Unit)	MYT Control Period				
	2020-21	2021-22	2022-23	2023-24	2024-25
Panipat TPS (Unit 6)	46.16	48.01	49.42	50.87	52.36
Panipat TPS (Unit 7)	40.21	41.81	43.04	44.30	45.60
Panipat TPS (Unit 8)	40.21	41.81	43.04	44.30	45.60
DCR TPS, Yamuna Nagar (Unit-1)	35.76	37.19	38.28	39.40	40.55
DCR TPS, Yamuna Nagar (Unit-2)	35.76	37.19	38.28	39.40	40.55
Rajiv Gandhi TPS (Unit 1)	21.65	22.52	23.18	23.86	24.56
Rajiv Gandhi TPS (Unit 2)	21.65	22.52	23.18	23.86	24.56

31 (c) Energy charge rate (ECR) in Rs. per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formula:-

(i) In case secondary fuel Oil cost is the part of ECR:

$$\left\{ \left[\frac{\text{SHR} - (\text{SFC} \times \text{CVSF}) \times \text{LPPF}}{\text{CVPF}} \right] + (\text{SFC} \times \text{LPSF}) \right\} \times \left\{ \frac{100}{100 - \text{Aux}} \right\}$$

(ii) In case secondary fuel Oil cost is not the part of ECR

$$\left[\frac{\text{SHR} - (\text{SFC} \times \text{CVSF}) \times \text{LPPF}}{\text{CVPF}} \right] \times \left\{ \frac{100}{100 - \text{Aux}} \right\}$$

Where

AUX = Normative auxiliary energy consumption in percentage;

CVPF = Gross calorific value of primary fuel as received, in kCal per kg or per litre as applicable;

CVSF = Gross calorific value of secondary fuel in kCal per ml;

ECR = Energy charge rate in Rs. per kWh sent out;

SHR = Normative Station Heat rate in kCal per kWh;

SFC = Normative Specific fuel oil consumption in ml/kWh

LPPF = Weighted average landed price of primary fuel in Rs./kg.

LPSF = Weighted average landed fuel cost of Secondary Fuel in Rs./ml during the month.

31 (d) Gross Calorific Value of Primary Fuel:

(1) The gross calorific value for computation of energy charges shall be done in accordance with 'GCV 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.

Provided that the additional 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, 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 such as domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel, 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.

33. K_{cm} shall be the weighed average GCV of coal on as received basis for the month in Kcal / Kg.

34 (3) (iii) Oil Consumption per start up (KI)

Unit Size (MW)	Hot start up	Warm start up	Cold start up
300 MW	24KI	36 KI	60 KI
600 MW	36 KI	60 KI	108 KI

43 & 54.3 Late Payment Surcharge (LPS)

Application-These rules shall be applicable for payments to be made in pursuance of _

- a) Power Purchase Agreements, Power Supply Agreements and Transmission Service Agreements, in which tariff is determined under section 62 of the Act; and
- (b) such Power Purchase Agreements, Power Supply Agreements and Transmission Service Agreements that become effective after these rules come into force, in which tariff is determined under section 63 of the Act.

2. Definitions.-

(b) "base rate of Late Payment Surcharge" means the marginal cost of funds-based lending rate for one year of the State Bank of India, as applicable on the 1st April of the financial year in which the period lies, plus five percent and in the absence of marginal cost of funds-based lending rate, any other arrangement that substitutes it, which the Central Government may, by notification, in the Official Gazette, specify:

Provided that if the period of default lies in two or more financial years, the base rate of Late Payment Surcharge shall be calculated separately for the periods falling in different years;

(c) "due date" means the date by which the bill for the charges for power supplied by the generating company or electricity trader or for the transmission service provided by a transmission licensee are to be paid, in accordance with the Power Purchase Agreement, Power Supply Agreement or Transmission Service Agreement, as the case may be, and if not specified in the agreement, forty-five days from the date of presentation of the bill by such generating company, electricity trader or transmission licensee;

(d) "Late Payment Surcharge" means the charges payable by a distribution company to a generating company or electricity trader for power procured from it, or by a user of a transmission system to a transmission licensee on account of delay in payment of monthly charges beyond the due date;

3. Late Payment Surcharge.- (1) Late Payment Surcharge shall be payable on the payment outstanding after the due date at the base rate of Late Payment Surcharge applicable for the period for the first month of default.

(2) The rate of Late Payment Surcharge for the successive months of default shall increase by 0.5 percent for every month of delay provided that the Late Payment Surcharge shall not be more than 3 percent higher than the base rate at any time:

Provided that the rate at which Late Payment Surcharge shall be payable shall not be higher than the rate specified in the agreement for purchase or transmission of power, if any:

Provided further that, if a distribution licensee has any payment including Late Payment Surcharge outstanding against a bill after the expiry of seven months from the due date of the bill, it shall be debarred from procuring power from a power exchange or grant of short-term open access till such bill is paid.

4. Adjustment towards Late Payment Surcharge.- All payments by a distribution licensee to a generating company or a trading licensee for power procured from it or by a user of a transmission system to a transmission licensee shall be first adjusted towards Late Payment Surcharge and thereafter, towards monthly charges, starting from the longest overdue bill.

35. Hydro Power Plants (HEPs) :

Particulars	Existing Provision	Amended Provision
Definition of Pumped Storage Hydro Generating Station	Insert Regulation 3.44 (a)	Pumped Storage Hydro Generating Station means a hydro generating station which generates power through energy stored in the form of water energy, pumped from a lower elevation reservoir to a higher elevation reservoir;
Definition of "Run-of-River Generating Station" and "Run-of-River Generating Station with pondage"	Insert Regulation 3.47 (a) Insert Regulation 3.47 (b)	'Run-of-River Generating Station' means a hydro generating station which does not have upstream pondage; 'Run-of-River Generating Station with Pondage' means a hydro generating station with sufficient pondage for meeting the diurnal variation of power demand;
Definition of 'Storage Type Generating Station'	Insert Regulation 3.52 (a)	'Storage Type Generating Station' means a hydro generating station associated with storage capacity to enable variation of generation of electricity according to demand;
Definition of 'Useful Life'	Insert Regulation 3.59 (a)	'Useful Life' in relation to a unit of a generating station, integrated mines, transmission system and communication system from the date of commercial operation shall mean the following:

Particulars	Existing Provision	Amended Provision
		<p>(a) Coal/Lignite based thermal generating station 25 years.</p> <p>(b) Gas/Liquid fuel based thermal generating station 25 years.</p> <p>(c) AC and DC sub-station 25 years.</p> <p>(d) Gas Insulated Substation (GIS) 25 years.</p> <p>(e) Hydro generating station including pumped storage hydro generating stations 40 years.</p> <p>(f) Transmission line (including HVAC & HVDC) 35 years.</p> <p>(g) Communication system 15 years</p> <p>Provided that the extension of life of the projects beyond the completion of their useful life shall be decided by the Commission on case to case basis;</p> <p>Provided further that the depreciation schedule (Appendix II) shall be accordingly aligned in case the useful life, as per the present amendment, is different from the said schedule.</p>
Multi-Purpose Hydro	Insert Regulation 18 (9)	In case of multi-purpose hydro schemes, with irrigation, flood control and power components, the capital cost chargeable to the power component of the scheme only shall be considered for determination of tariff.
Initial Spares- Part of capitalization	Amend Regulation 18 (2)(e) 3. Hydro Generation Plants 1.50%	3. Hydro generating stations including pumped storage (PSP) hydro generating station 1.5%
Interest on Working Capital	Amend Regulation 22.1– Generation Company-III Hydro power plants: a) Normative operation and maintenance expenses for 1 (one) month b) Maintenance spares @ 7.5% of normative operation and maintenance expenses; c) Receivables equivalent to fixed cost for 2 (two) months	For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:- (i) Receivables equivalent to 1 month of annual fixed cost; (ii) Maintenance spares @ <u>15%</u> of operation and maintenance expenses including security expenses; and (iii) Operation and maintenance expenses, including security expenses for one month

Particulars	Existing Provision	Amended Provision
Operation and Maintenance expenses	<p>Amend Regulation 34.4</p> <p>a) The Operation and Maintenance expenses including insurance shall be derived on the basis of the average of the actual Operation and Maintenance expenses for the three (3) years ending March 31,2018, subject to prudence check by the Commission.</p> <p>b) The average of such operation and maintenance expenses shall be considered as operation and maintenance expenses for the financial year ended March 31,2020 and shall be escalated at the escalation factor of 4% to arrive at operation and maintenance expenses for subsequent years of the control period. Alternatively, the Commission may peg O&M expenses for the first year of operation at 2% of the project cost admitted by the Commission (excluding cost of rehabilitation and resettlement works and any other cost that may be disallowed by the Commission including on account of delay in CoD).</p> <p>c) The O&M expenses for each subsequent year will be determined by escalating the base expenses determined above, at the escalation factor of 4%.</p>	<p>(b) In case of the hydro generating stations declared under commercial operation on or after 1.4.2019, operation and maintenance expenses of first year shall be fixed at 3.5% and 5.0% of the original project cost (excluding cost of rehabilitation & resettlement works, IDC and IEDC) for stations with installed capacity exceeding 200 MW and for stations with installed capacity less than 200 MW, respectively.</p> <p>(c) In case of hydro generating stations which have not completed a period of three years as on 1.4.2019, operation and maintenance expenses for 2019-20 shall be worked out by applying <u>escalation rate of 2.93%</u> on the applicable operation and maintenance expenses as on 31.3.2019. The operation and maintenance expenses for subsequent years of the tariff period shall be worked out by applying escalation rate of 2.93% per annum.</p>

Particulars	Existing Provision	Amended Provision
Pumped Storage Hydro Generating Stations	Insert Regulation 34.5	<p>Separate norms for Computation and Payment of Capacity Charge and Energy Charge for Pumped Storage Hydro Generating Stations.</p> <p>Computation and Payment of Capacity Charge and Energy Charge for Pumped Storage Hydro Generating Stations:</p> <p>(1) The fixed cost of a pumped storage hydro generating station shall be computed on annual basis, based on norms specified under these regulations, and recovered on monthly basis as capacity charge. The capacity charge shall be payable by the beneficiaries in proportion to their respective allocation in the saleable capacity of the generating station, i.e., the capacity excluding the free power to the home State:</p> <p>Provided that during the period between the date of commercial operation of the first unit of the generating station and the date of commercial operation of the generating station, the annual fixed cost shall be worked out based on the latest estimate of the completion cost for the generating station, for the purpose of determining the capacity charge payment during such period.</p> <p>(2) The capacity charge payable to a pumped storage hydro generating station for a calendar month shall be: $(AFC \times NDM / NDY)$ (In Rupees), if actual Generation during the month is $\geq 75\%$ of the Pumping Energy consumed by the station during the month and $\{(AFC \times NDM / NDY) \times (\text{Actual Generation during the month during peak hours} / 75\% \text{ of the Pumping Energy consumed by the station during the month})\}$ (in Rupees)}, if actual Generation during the month is $< 75\%$ of the Pumping Energy consumed by the station during the month.</p> <p>Where, AFC = Annual fixed cost specified for the year, in Rupees NDM = Number of days in the month NDY = Number of days in the year</p> <p>Provided that there would be adjustment at the end of the year based on actual generation and actual pumping energy consumed by the station during the year.</p> <p>(3) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary in excess of the design energy plus 75% of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir, at a flat rate equal to the average energy charge rate of 20 paise per kWh, excluding free energy, if any, during the calendar month, on ex power plant basis.</p>

Particulars	Existing Provision	Amended Provision
		<p>(4) Energy charge payable to the generating company for a month shall be: $= 0.20 \times \{ \text{Scheduled energy (ex-bus) for the month in kWh} - (\text{Design Energy for the month (DEm)} + 75\% \text{ of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir of the month}) \} \times (100 - \text{FEHS}) / 100.$ Where, DEm = Design energy for the month specified for the hydro generating station, in MWh FEHS = Free energy for home State, in per cent</p> <p>Provided that in case the Scheduled energy in a month is less than the Design Energy for the month plus 75% of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir of the month, then the energy charges payable by the beneficiaries shall be zero.</p> <p>(5) The generating company shall maintain the record of daily inflows of natural water into the upper elevation reservoir and the reservoir levels of upper elevation reservoir and lower elevation reservoir on hourly basis. The generator shall be required to maximize the peak hour supplies with the available water including the natural flow of water. In case it is established that generator is deliberately or otherwise without any valid reason, is not pumping water from lower elevation reservoir to the higher elevation during off-peak period or not generating power to its potential or wasting natural flow of water, the capacity charges of the day shall not be payable by the beneficiary. For this purpose, outages of the unit(s)/station including planned outages and the forced outages up to 15% in a year shall be construed as the valid reason for not pumping water from lower elevation reservoir to the higher elevation during off-peak period or not generating power using energy of pumped water or natural flow of water: Provided that the total capacity charges recovered during the year shall be adjusted on pro-rata basis in the following manner in the event of total machine outages in a year exceeds 15%: $(\text{ACC})_{\text{adj}} = (\text{ACC}) \text{ R} \times (100 - \text{ATO}) / 85$ Where, (ACC)_{adj} – Adjusted Annual Capacity Charges (ACC) R – Annual Capacity Charges recovered ATO - Total Outages in percentage for the year including forced and planned outages</p> <p>Provided further that the generating station shall be required to declare its machine availability daily on day ahead basis for all the time blocks of the day in line with the scheduling procedure of Grid Code.</p>

Particulars	Existing Provision	Amended Provision																					
		(6) The concerned Load Despatch Centre shall finalize the schedules for the hydro generating stations, in consultation with the beneficiaries, for optimal utilization of all the energy declared to be available, which shall be scheduled for all beneficiaries in proportion to their respective allocations in the generating station.																					
Auxiliary Energy Consumption (AEC)	<p>Amend Regulation 34.3</p> <p>The following Auxiliary Energy Consumption shall apply to other Hydro Stations</p> <p>(a) Surface hydro generating stations:</p> <p>i. With rotating exciters mounted on the generator shaft: 0.70%;</p> <p>ii. With static excitation system: 1.00%;</p> <p>(b) Underground hydro generating station:</p> <p>i. With rotating exciters mounted on the generator shaft: 0.90%;</p> <p>ii. With static excitation system: 1.20%</p>	<p>Separate norms for hydro with Installed Capacity above 200 MW and Installed Capacity upto 200 MW.</p> <p>Auxiliary Energy Consumption (AEC):</p> <table border="1" data-bbox="850 660 1445 1025"> <thead> <tr> <th>Type of Station</th> <th>Installed Capacity above 200 MW</th> <th>Installed Capacity upto 200</th> </tr> </thead> <tbody> <tr> <td>Surface</td> <td></td> <td></td> </tr> <tr> <td>Rotating Excitation</td> <td>0.7%</td> <td>0.7%</td> </tr> <tr> <td>Static</td> <td>1.0%</td> <td>1.2%</td> </tr> <tr> <td>Underground</td> <td></td> <td></td> </tr> <tr> <td>Rotating Excitation</td> <td>0.9%</td> <td>0.9%</td> </tr> <tr> <td>Static</td> <td>1.2%</td> <td>1.3%</td> </tr> </tbody> </table>	Type of Station	Installed Capacity above 200 MW	Installed Capacity upto 200	Surface			Rotating Excitation	0.7%	0.7%	Static	1.0%	1.2%	Underground			Rotating Excitation	0.9%	0.9%	Static	1.2%	1.3%
Type of Station	Installed Capacity above 200 MW	Installed Capacity upto 200																					
Surface																							
Rotating Excitation	0.7%	0.7%																					
Static	1.0%	1.2%																					
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Rotating Excitation	0.9%	0.9%																					
Static	1.2%	1.3%																					
NAPAF	<p>Amend Regulation 34.3 (a) and (b)</p> <p>The following Normative Annual Plant Availability Factor (NAPAF) shall apply to other hydro generating stations for recovery of Annual Fixed Charges:</p> <p>34.3 (a) Storage and Pondage type plants with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of up to 80%, and where plant availability is not affected by silt: 90%</p> <p>34.3 (b) In case of storage and pondage type plants with head variation between full reservoir level and</p>	<p>Normative Annual Plant Availability Factor (NAPAF):(1)The following normative annual plant availability factor (NAPAF) shall apply to hydro generating station:</p> <p>(a) Storage and Pondage type plants with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of up to 8%, and where plant availability is not affected by silt: 90%;</p> <p>b) In case of storage and pondage type plants with head variation between full reservoir level and minimum draw down level is more than 8% and when plant availability is not affected by silt, the month wise peaking capability as provided by the project authorities in the DPR (approved by CEA or the State Government) shall form basis of fixation of NAPAF;</p>																					

Particulars	Existing Provision	Amended Provision
	minimum draw down level is more than 8% and when plant availability is not affected by silt, the month wise peaking capability as provided by the project authorities in the DPR (approved by CEA or the State Government) shall form basis of fixation of NAPAF;	
Design Energy	Insert Regulation 34.4.5	Shortfall in energy charges in comparison to fifty percent of the annual fixed cost shall be allowed to be recovered in six equal monthly instalments.
Computation and Payment of Capacity Charge and Energy Charge for Hydro Generating Stations	Amendment of Regulation 34 (4) 2, 34 (2) (4) iii	-
	34(4) 2 The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding free energy, if any, during the calendar month, on ex-bus basis, at the computed energy charge rate. Total energy charge payable to the generating company for a month shall be: Energy Charges = (Energy charge rate in Rs. / kWh) x {Scheduled energy (exbus) for the month in kWh} x (100 – FEHS) / 100	44(4) The energy charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, excluding auxiliary energy consumption and free energy to home state, if any, during the calendar month, i.e. on ex-bus basis, at the computed energy charge rate. Total energy charge payable to the generating company for a month shall be: Energy Charges = (Energy charge rate in Rs. / kWh) x {scheduled energy up to saleable energy (exbus) for the month in kWh} x (100 – FEHS) / 100
	34(4) iii In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (5) of this Regulation exceeds one hundred and twenty paise per kWh, and the actual saleable energy in a year exceeds { DE x (100 – AUX) x (100 – FEHS	34(4) iii In case the energy scheduled, in any month, exceeds design energy, such secondary energy , if scheduled by the beneficiary, shall be billed at Rs. 0.90 / kWh. Provided that no payments shall be made / claimed for deemed generation for water spillage or for that matter any other reasons. Provided further that no payments / incentives shall be made / payable for secondary unless the same is actually

Particulars	Existing Provision	Amended Provision
)/10000} MWh, the energy charge for the energy in excess of the above shall be billed at one hundred and twenty paise per kWh only.	scheduled and drawn by the Haryana distribution licensees.

45.3 Operation and Maintenance Expenses (Transmission Business)

The actual audited Employee cost (excluding terminal liabilities) and A&G expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the **escalation factor of 2.93%** to arrive at the Employee cost (excluding terminal liabilities) and A&G expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below: $O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1 - X_n) + \text{Terminal Liabilities}$

Where,

57.4 Operation and maintenance Expenses (Distribution Business)

The actual audited expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the **escalation factor of 2.93%** to arrive at the Employee Costs and Administrative and General Costs for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below.

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1 - X_n) + \text{Terminal Liabilities}$$

Where :

Date: 31.01.2022

Place: Panchkula

(Naresh Sardana)

Member

(R.K. Pachnanda)

Chairman