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

Case No. HERC/Petition No. 49 of 2025
Date of Hearing : 26.09.2025
Date of Order : 29.10.2025

#### IN THE MATTER OF:

Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2025. - Suo Motu.

## Intervener(s):

- 1. Haryana Power Purchase Centre, Panchkula (HPPC)
- 2. Starwire (India) Vidyut Pvt. Ltd. (Starwire)
- 3. Indian Energy Exchange Ltd. (IEX)
- 4. Chanderpur Renewal Power Co. Pvt. Ltd.
- 5. Yamunanagar Jagadhri Chamber of Commerce and Industry

## Interveners present:

- 1. Mr. Gaurav Gupta, Xen, HPPC
- 2. Mr. Varun Todi, Director, Starwire (India) Vidyut Pvt. Ltd.
- 6. Dr. Deipa Singh, Advocate, Chanderpur Renewal Power Co. Pvt. Ltd and Yamunanagar Jagadhri Chamber of Commerce and Industry

#### Quorum

Shri Nand Lal Sharma Shri Mukesh Garg Shri Shiv Kumar Chairman Member Member

#### **ORDER**

## **Statement of Object and Reasons**

- Section 61 read with Section 181 (2) of the Electricity Act, 2003 casts statutory obligation
  on the State Commission to promote co-generation and generation of electricity from
  renewable sources of energy and to make Regulations by way of notifications to carry out
  the said provisions of the Act.
- 2. In exercise of the powers conferred on it under Section 181 of the Act and all other powers enabling it in this behalf, the Commission had notified the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulation, 2021 which came into effect from the date of its notification in the Haryana Government Gazette i.e. 30.04.2021. Subsequently some of the provisions of the said Regulations were amended / new clauses added by way of 1st Amendment dated 31st March, 2022 and 2nd Amendment dated 26th December, 2022, after following the due process prescribed for the purpose.

Regulation 4 of the Haryana Electricity Regulatory Commission (Terms and conditions for determination of tariff for renewable energy sources, renewable purchase obligations and renewable energy certificates) Regulations, 2021, provides that revision of the Regulations is to be undertaken six months prior to the end of the first Control Period and in case Regulations for the next Control Period are not notified until commencement of next Control Period, the tariff norms as per these Regulations shall continue to remain applicable until notification of the revised Regulations and the Control Period shall be deemed to have been extended up to the date of notification of the next Control Period.

- 3. The Commission, vide its order dated 26.03.2025, has recently determined fuel cost of biomass, bagasse and paddy-straw based power plants, in line with the prevalent market price of the fuel based on the study conducted by an independent agency M/s. Chaudhary Devi Lal University (CDLU), Sirsa.
- 4. Regulation 4 of the HERC RE Regulations, 2021 provides as under:-
  - "4. Control Period or Review Period. The Control Period for the purpose of tariff determination under these Regulations shall be from the FY 2021-22 to the FY 2024-25.

. . . . .

Provided also that the revision in Regulations for next Control Period shall be undertaken at least six months prior to the end of the first Control Period and in case Regulations for the next Control Period are not notified until commencement of next Control Period, the tariff norms as per these Regulations shall continue to remain applicable until notification of the revised Regulations and the Control Period shall be deemed to have been extended up to the date of notification of the next Control Period."

- 5. Accordingly, control period mentioned in Regulation 4 of the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulation, 2021, as applicable for the period from the FY 2021-22 to the FY 2024-25 shall be extended by one year i.e. up to FY 2025-26 and the control period mentioned in the ibid regulations shall be read as from FY 2021-22 to the FY 2025-26. However, the escalation factor shall be considered as 3.45% p.a. w.e.f. 01.04.2025. Further, the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulation, 2025 (HERC RE Regulations, 2025), shall be applicable for the control period from the FY 2026-27 to the FY 2028-29.
- 6. Resultantly, the Commission had issued a draft HERC RE Regulations, 2025, 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, for giving a final shape to the draft Regulations.

## **Public Proceedings**

- 7. Section 181 (3) of the Electricity Act, 2003 provides that all the regulations made by the State Electricity Regulatory Commissions, shall be subject to the condition of previous publication. Accordingly, the draft discussion paper was hosted on the website of the Commission and a public notice, inviting comments on the same, on affidavit latest by 02.08.2025, was issued in the Newspapers i.e. Hindustan Times (English) and Dainik Tribune (Hindi) on 10.07.2025. The public hearing was held on 04.09.2025 as well as on 26.09.2025.
- 8. In response to the public notice issued by the Commission, comments / objections were filed by five stakeholders namely Haryana Power Purchase Centre (HPPC), Starwire (India) Vidyut Pvt. Ltd. (Starwire), Indian Energy Exchange Ltd. (IEX), Chanderpur Renewal Power Co. Pvt. Ltd. and Yamunanagar Jagadhri Chamber of Commerce and Industry

The Comments filed / issues raised by the intervenors and the Commission's view thereof, are as follows:-

9. Comments by Haryana Power Purchase Centre (HPPC):

HPPC vide its memo no Ch-15/CE/HPPC/SE/C&R-I/LTP-III/RE-Regulation/Vol-I 28.07.2025 has filed its comments. The issue-wise comments of HPPC along with Commission's view thereon have been as under:-

9.1 Escalation Factor be kept as 2.93% for FY 2025-26

The control period of the HERC RE Regulations 2021 was from the FY 2021-22 to the FY 2024-25. The escalation factor was specified as 2.93% w.e.f. FY 2021-22. In the draft discussion paper, the control period has been extended by one year i.e. upto FY 2025-26, with revision in the escalation factor from 2.93% to 3.45% w.e.f from 01.04.2025.

In this context, HPPC has submitted that the revision of the escalation factor from 2.93% to 3.45% while the HERC RE Regulations, 2021 is still in force is not appropriate and legally untenable. The escalation factor specified in the HERC RE Regulations, 2021 was duly notified through a transparent regulatory process, including public consultation and stakeholders input. Any revision in the escalation factor constitutes an amendment to the said regulations and, as per the Electricity Act, 2003 and established regulatory principles, must follow due process, including prior publication, stakeholder consultation, and formal amendment notification.

Unilaterally revising the escalation factor through an order or circular, while the principal

regulations are in effect, undermines regulatory sanctity, introduces uncertainty, and is not consistent with statutory and procedural requirements. It is, therefore, requested that escalation factor be kept at 2.93% for FY 2025-26 and Biomass & Paddy Straw fuel cost for FY 2024-25, FY 2025-26 & FY 2026-27 be specified as under:-

Fuel	FY 2024-25	FY 2025-26	FY 2026-27
Biomass	4384	4512	4645
Paddy Straw	3463	3564	3669
Bagasse	2462	2534	2608

## Submissions of M/s. Starwire on the Comments filed by HPPC

M/s. Starwire has sought rejection of the comments filed by HPPC, submitting as under: "HPPC has neither raised a single grievance against the escalation rate itself, nor the applicability of the escalation proposed for FY 2026-27 onwards. The Commission has already brought forward the draft and it has been published for wide stakeholder participation. Once the regulations are published in the Official Gazette after following the Previous Publication Rules, the same shall be conclusive proof that the regulations have been duly made.

Further, in view of the Order dated 26.03.2025 in HERC / Petition No. 1 of 2025 (Suo Motu), even if old escalation rate is applied for FY 2025-26, once the Hon'ble Commission amends or re-determines the same as per the notified regulations, the same shall be applicable with appropriate adjustments. The upward revision of escalation factor is urgently required as the Control Period as envisaged under the HERC RE Regulations 2021 is already over. It would not be legally tenable to continue the same when new facts and figures are already available with the Hon'ble Commission. HPPC has proposed fuel cost for FY 2026-27 after applying escalation factor of 2.93% which is against the 3.45% as proposed by the Commission and they are agreeable to 3.45% escalation beyond FY 2026-27. Unfortunately, HPPC is contradicting itself. The very fact that the fuel cost has not been aligned with market conditions is evident from the fuel cost determined for biomass fuel as per the HERC RE Regulations 2021 and the fuel cost determined by the Hon'ble Commission after state specific fuel study. It is absolutely incorrect on part of HPPC as even CERC has proposed escalation of 3.45% for biomass fuel cost. Even though the current fuel cost escalation is much higher, the Commission is requested to adopt a minimum escalation of 5% to include uncertainties as has been done in the past.

#### Commission's view/Decision: -

The Commission has examined the comments filed by HPPC and M/s. Starwire. The Commission observes that reasoning for extension of control period by one year i.e. for the FY 2025-26, was given in the discussion paper. The same is reproduced hereunder:-

"2.....

Regulation 4 of the Haryana Electricity Regulatory Commission (Terms and conditions for determination of tariff for renewable energy sources, renewable purchase obligations and renewable energy certificates) Regulations, 2021, provides that revision of the Regulations is to be undertaken six months prior to the end of the first Control Period and in case Regulations for the next Control Period are not notified until commencement of next Control Period, the tariff norms as per these Regulations shall continue to remain applicable until notification of the revised Regulations and the Control Period shall be deemed to have been extended up to the date of notification of the next Control Period.

- 3. The Commission, vide its order dated 26.03.2025, has recently determined fuel cost of biomass, bagasse and paddy-straw based power plants, in line with the prevalent market price of the fuel based on the study conducted by an independent agency M/s. Chaudhary Devi Lal University (CDLU), Sirsa.
- 4. Regulation 4 of the HERC RE Regulations, 2021 provides as under:-
- "4. Control Period or Review Period. The Control Period for the purpose of tariff determination under these Regulations shall be from the FY 2021-22 to the FY 2024-25.

Provided also that the revision in Regulations for next Control Period shall be undertaken at least six months prior to the end of the first Control Period and in case Regulations for the next Control Period are not notified until commencement of next Control Period, the tariff norms as per these Regulations shall continue to remain applicable until notification of the revised Regulations and the Control Period shall be deemed to have been extended up to the date of notification of the next Control Period."

5. Accordingly, control period mentioned in Regulation 4 of the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulation, 2021, as applicable for the period from the FY 2021-22 to the FY 2024-25 shall be extended by one year i.e. up to FY 2025-26 and the control period mentioned in the ibid regulations shall be read as from FY 2021-22 to the FY 2025-26. However, the escalation factor shall be considered as 3.45% p.a. w.e.f. 01.04.2025.

Thus, the Commission after following the due process of going through the public consultation, has notified draft amendment to Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2021, providing for escalation of 3.45% for the FY 2025-26, which shall be notified as Haryana

Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2021, (3rd Amendment) 2025.

The Commission further observes that Hon'ble Central Electricity Regulatory Commission (CERC) in its CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024, notified on 12.06.2024, has determined escalation factor @ 3.45% p.a. for the FY 2025-26. In line with the same, the Commission has proposed to notify the same for the FY 2025-26 onwards, after following the due transparent regulatory process i.e. previous publication including considering stakeholders input. The same shall be duly notified as Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2021, (3rd Amendment) 2025.

Additionally, the capital cost determined by the Commission in the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2021, was applicable for the control period of FY 2020-21 to FY 2024-25, which too has escalated over a period of time. Hence, capital cost determined for the control period of FY 2020-21 to FY 2024-25, is also required to be escalated by 3.45% to arrive at capital cost for the FY 2025-26.

Accordingly, first para of Regulation 4, shall be read as under: First para of Regulation 4: -

Control Period or Review Period. – The Control Period for the purpose of tariff determination under these Regulations shall be from the FY 2021-22 to the FY 2025-26. However, the fuel cost and O&M expenses for the FY 2025-26 shall be arrived at by escalating the respective cost for the FY 2024-25 by an escalation factor of 3.45% p.a. Similarly, the capital cost for the FY 2025-26 shall be arrived at by escalating the respective cost for the control period from FY 2021-22 to FY 2024-25, by an

## 9.2 Ceiling Limit on Capital Cost

escalation factor of 3.45% p.a.

HPPC has submitted that the draft discussion paper *inter alia* provides for project specific financial and technical norms for tariff determination, including norms of capital cost depending upon the technology type of the renewable generation plant. All technical and financial norms are ceiling limit except the norm related to capital cost of project. The proviso to regulation 6(2) of HERC RE Regulations provides that the financial norms

except for capital cost shall be ceiling norms while determining the project specific tariff. Allowing project capital cost without any ceiling in capital cost will lure developers in over invoicing of project and to pocket lucrative Return of 14% on project Equity besides enhanced tariff. As a settled principle, major parameters like capital cost and O&M expenses should not be kept open ended otherwise it would give rise to lot of subjectivity when the actual tariff is determined besides attracting misappropriations by over pricing/invoicing of project cost.

## Commission's view/Decision: -

The Commission has considered the comments filed by HPPC. It is observed that Hon'ble Central Electricity Regulatory Commission (CERC) has notified its CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024, on 12.06.2024. Regulation clause 7 (b) of the ibid regulations provides as under:-

"Financial and operational norms specified in these regulations, except for capital cost, shall be the ceiling norms while determining the project specific tariff."

However, the Commission has considered the apprehension raised by HPPC that allowing project capital cost without any ceiling in capital cost may lead to over invoicing of project. Accordingly, in order to ensure regulatory certainty, it is decided that first proviso to Regulation 6 (2), shall be read as under:-

First proviso to Regulation 6 (2):

"Provided that the financial and operational norms as specified in these Regulations, shall be ceiling norms while determining the project specific tariff."

## 9.3 Specific types of projects eligible for determination of Project specific tariff

HPPC has requested to specify the types of projects eligible for Project Specific Tariff under draft HERC RE Regulations 2025 to ensure regulatory clarity, transparency, and consistency.

## Submissions of M/s. Starwire on the Comments filed by HPPC

M/s. Starwire has submitted that the Hon'ble Commission may consider specifying only generic tariff without any project specific tariff. This is because project specific tariff leads to discrimination between generators. In the submission of the present stakeholder, only generic tariff ought to be allowed to all renewable energy projects subject to discounts offered on generic tariff in cases of reverse bidding.

## Commission's view/Decision: -

The Commission has examined the submissions of HPPC as well as M/s. Starwire and is of the considered view that determination of tariff can take place in one of two ways i.e. either under Section 62, where the Commission itself determines the tariff in

accordance with the provisions of the Act, (after laying down the terms and conditions for determination of tariff mentioned in Section 61) or under Section 63 where the Commission adopts tariff that is already determined by a transparent process of bidding. In either case, the general regulatory power of the Commission under Section 86(1)(b) is the power to regulate, which includes the power to determine or adopt tariff. In fact, Sections 62 and 63 deal with "determination" of tariff which is part of "regulating" tariff. Even in a case covered under section 63, no embargo can be placed upon the general powers of the State Commission under section 86(1)(b) of the Act to regulate the price at which electricity shall be procured from the generating companies. It begins with a nonobstante clause which overrides Section 62. Under Section 63, the tariff is discovered by way of bidding process which is then adopted by the Commission in case it is satisfied that the bidding process was transparent and in compliance with the guidelines issued by the Central Government. Therefore, a State Electricity Regulatory Commission (SERC) cannot generally restrict the use of Section 62 or Section 63 of the Electricity Act, 2003 itself, as these are provisions of the Act that mandate the manner of tariff determination. Section 63 is an exception to Section 62, requiring the SERC to adopt tariffs determined through a transparent bidding process, and a State Commission is bound to follow these statutory provisions and the guidelines issued by the Central Government for Section 63 bids, rather than restricting their application.

Hence, no change in the draft regulations is required.

## 9.4 Scheduling & Dispatch of Biomass Power Plants

Regulation 10 of the draft discussion paper provides as under:-

"All renewable energy power plants except for Biomass power plants of installed capacity 10 MW and above shall be treated as 'MUST RUN' power plants. Biomass other than 100% paddy straw based power with installed capacity of 10 MW and above shall be subjected to scheduling and dispatch as specified under Haryana Grid Code and other relevant regulations including amendments thereto."

The above clause is ambiguous in nature as it might give several interpretation. Further, All Biomass generators with installed capacity of 10MW and above shall be subjected to scheduling and dispatch principle, as the same is required for Grid Discipline and proper power planning. Accordingly, the clause may be amended as under:-

"All renewable energy power plants, except for Biomass power plants of installed capacity 10 MW and above, shall be treated as 'MUST RUN' power plants. All Biomass generators with installed capacity of 10MW and above, shall be subjected to scheduling and dispatch principle, as the same is required for Grid Discipline and proper power planning."

## Submissions of M/s. Starwire on the Comments filed by HPPC

M/s. Starwire has submitted that Biomass power projects ought to be completely exempt from the provisions of scheduling since the total capacity of biomass power in the State of Haryana is very meagre as compared to the total procurement of power by HPPC from other sources. Moreover, the biomass plants are of very small capacity as compared to other thermal or other renewable energy projects. If the plants are subjected to scheduling, it would be very difficult to plan for fuel consumption and as the fuel is bio degradable, the net realizable value of the fuel reduces which in-turn increases the consumption of fuel in the boilers. Hence, all biomass power plants must be awarded 'MUST RUN' status under provisions of Section 86 (1) (e) of the Act and the Hon'ble Commission is requested to take such promotional measures in the interest of biomass power plants in the State. Further, the Hon'ble Commission has already given 'MUST RUN' status to 100% paddy fuel-based power plants irrespective of their installed capacity. Paddy is also a biomass fuel and biomass power plants ought to be treated similarly. Hence, it is requested to accord the same 'MUST RUN' status to all biomass-based power plants, including paddy based, irrespective of their installed capacity.

## Commission's view/Decision: -

9.5

The Commission has considered the comments filed by HPPC as well as M/s. Starwire and observes that 100% paddy straw based power plants even with the installed capacity of 10 MW and above, have been treated as 'Must Run' power plants. However, the Commission finds some merit in the submissions of HPPC that even 'Must Run' power plants should be subjected to scheduling and dispatch principle, as enshrined in HERC DSM Regulations, in order to ensure Grid Discipline and proper power planning. Accordingly, in order to remove any ambiguity, it is decided that first proviso to Regulation 10 (1), shall be read as under:-

"All renewable energy power plants except for Biomass power plants of installed capacity 10 MW and above shall be treated as 'MUST RUN' power plants. Further, 100% paddy straw based power plants even with the installed capacity of 10 MW and above, shall be treated as 'Must Run' power plants. However, all Biomass generators with installed capacity of 10 MW and above, shall be subjected to scheduling and dispatch principle, as specified under Haryana Grid Code and other relevant regulations including amendments thereto."

HPPC has submitted that as per Regulation 8 of the discussion paper, margin money has been included with Interest on Working Capital component, whereas, as per regulatory practice and CERC norms, margin money is the promoter's contribution and not a borrowing cost. Therefore, margin money should be excluded from the interest on working capital component to avoid excess burden on the electricity consumers of the State.

## Submissions of M/s. Starwire on the Comments filed by HPPC

M/s. Starwire has submitted that all borrowers are allowed working capital limits on different norms depending on their eligibility criteria as per the financial institution/ banks credit policy. Hence making such general rules, as prayed by HPPC, may be against the interest of the generators borrowing capacity.

## Commission's view/Decision: -

The Commission has considered the comments filed by HPPC as well as M/s. Starwire and tends to agree with the submissions of HPPC, which is also aligned with the CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2024, notified by Hon'ble Central Electricity Regulatory Commission (CERC) on 12.06.2024. Accordingly, Regulation 8 (1) (d), shall be substituted with the words 'Interest on working capital' instead of 'Interest on working capital including margin money'.

## 9.6 Clause 23 Statutory Charges:-

HPPC has submitted that statutory charges such as water cess, electricity duty on auxiliary consumption, and any other levies imposed by the State and Central Government are payable as per the applicable laws and are inherently linked to the operation of the generating station. These charges are neither part of the PPA nor related to the cost of power supplied to the Discoms. These are obligations arising on account of the generation activity itself. Therefore, such statutory charges should rightfully be borne by the Renewable Energy (RE) Generators themselves. Allowing these charges to be passed on to the Discoms would lead to an additional financial burden on the consumers and is inconsistent with regulatory principles where the generator is responsible for meeting all statutory compliance costs related to its generation facility.

Accordingly, HPPC has requested to amend the clause as under:-

"All statutory charges, including but not limited to water cess and electricity duty on auxiliary consumption, imposed by the State and Central Government, shall be borne by the Renewable Energy Generator."

## Submissions of M/s. Starwire on the Comments filed by HPPC

M/s. Starwire has submitted that proposal of HPPC is not only legally unsustainable, but also contrary to the PPAs executed between HPPC and the RE generators. The extract of the provision of clause 3.8 of the PPA dated 22.06.2012 executed between the present stakeholder and HPPC, is reproduced as under:-

"3.8 LEVIES, TAXES, DUTIES, CESS, FEE ETC -

Any taxes, duties, cess, royalties and fees etc which does not exist on the day of signing of PPA, on power generation, if levied at a later stage by Government of India, Government of Haryana or any statutory authority, shall be borne by HPPC."

From the above, it is evident that HPPC is attempting to override and side-line the express provisions of already executed and approved PPAs by this Hon'ble Commission under Section 86(1)(b) of the Act, by asking for statutory charges to be borne by the generators. These charges are intrinsically connected to ensuring uninterrupted supply of power by the RE generators to HPPC which is the sole beneficiary of such power. Hence it is very important that the generator be reimbursed the statutory charges imposed on them by the government which include not only water cess and electricity duty but also any kind of charges made applicable on the generator like changes in equipment due to change in pollution norms, water charges, other charges levied by SLDC/HPPC/HVPNL, etc.

## Commission's view/Decision: -

The Commission has considered the comments filed by HPPC and M/s. Starwire. The relevant clause in CERC (RE) Regulations, 2024 is reproduced hereunder:

"The renewable energy project developer shall recover from the beneficiaries the statutory charges imposed by the State and Central Government, such as electricity duty on auxiliary consumption, subject to the maximum of normative auxiliary consumption."

However, the Commission is of the considered view that the statutory charges recoverable by the generator from HPPC should be governed by the extant clause in the PPA.

Accordingly, Regulation 23, shall be substituted as under:-

"Tariff determined under these regulations shall be exclusive of taxes and duties as may be levied by the appropriate Government. Any tax / duty levied by the appropriate Government shall be governed by the terms of the PPA"

## 9.7 RPO for Captive Power Plants (CPP)

Reference is invited to Ministry of Power (MoP) letter dated 16.04.2025 whereby it has been clarified that after notification of RCO dated 20th October, 2023, under Energy Conservation Act, all the earlier notifications related to RPO issued by MoP related to Captive users have been superseded and are not applicable w.e.f. 01.04.24. It has been further stated vide ibid letter that the provisions of the RCO notification dated 20.10.2023 have already come into effect and are currently enforceable. All designated consumers, including Captive users, are required to comply with the specified RCO targets under the said notification. The clause 63 (7) may be amended suitably.

## Commission's view/Decision: -

The Commission observes that on 27.09.2025, Ministry of Power (MoP) has issued a Notification on Renewable Consumption Obligation (RCO) under the Energy conservation Act, 2001. As per the notification, the RCO obligation specified therein are applicable w.e.f. FY 2024-25. However, this Commission has already specified RPO obligations for obligated entities up to the FY 2025-26. Therefore, new trajectory, cannot have retrospective applicability. Haryana Discoms have also claimed Renewable Energy Certificate (REC), on the basis of the RPO obligations specified by this Commission for the FY 2024-25. Further, in order to avoid frequent amendments in the regulations framed by this Commission, it would be appropriate to adopt the notifications of MoP as amended from time to time and make it applicable prospectively w.e.f. FY 2026-27. The Commission further observes that there is no change in the total renewable energy obligation (%) for the FY 2024-25 and FY 2025-26. The ibid notification dated 27.09.2025 has only changed the inter-se obligations between Wind, Hydro, Distributed Renewable Energy and Other Renewable Energy. Further, clause 5 of the said notification provides that Open access consumers and captive users specified as designated consumers shall meet the specified total Renewable Consumption Obligation, from any renewable energy source. Therefore, the category-wise change in the obligation (%) does not have any significance for open access consumers and captive users. The impact of ibid notification shall not have any significant impact on the obligated entity remaining i.e. Discoms also, since Wind, Hydro and Other renewable energy obligations are fungible. Therefore, compliance of ibid notification of the MoP dated 27.09.2025 shall have impact on the trajectory in respect of 'Distributed Renewable Energy' and method of calculation of RCO compliance percentage.

In view of the above, the obligated entities, may exercise the option to comply with either the HERC trajectory specified in the HERC RE Regulations, 2021 (2<sup>nd</sup>

Amendment), 2022 or the MoP trajectory, for the FY 2025-26.

In view of the above, Regulation 63 shall be substituted as under:-

"63. Renewable Purchase / Consumption Obligation. -

"The Renewable Purchase / Consumption / Generation obligations, as may be notified by the Ministry of Power from time to time, shall be complied by the obligated entities, w.e.f. the FY 2026-27. However, obligated entities may exercise the option to comply with either the HERC trajectory specified in the HERC RE Regulations, 2021 (2<sup>nd</sup> Amendment), 2022 or the MoP trajectory, for the FY 2025-26."

## 9.8 Definitions. – Chapter-1, Clause no. 2 (17) Page no.5

HPPC has requested to change the definition of 'Gross station heat rate' or 'Gross SHR' as 'Gross station heat rate' or 'Gross SHR' means the heat energy input in **kCal** required to generate one kWh of electrical energy at generator terminals of a renewable energy generating station **that uses fuel for generations.** 

## Commission's view/Decision: -

The Commission has considered the comments filed by HPPC and in order to impart more clarity, substitutes the definition of 'Gross station heat rate' or 'Gross SHR', at Chapter-1, Clause no. 2 (17), as under:-

'Gross station heat rate' or 'Gross SHR' means the heat energy input in kCal required to generate one kWh of electrical energy at generator terminals of a renewable energy generating station that uses fuel for generations.

## 9.9 Depreciation. – Chapter no.3 clause no.14 (1) Page no.19

HPPC has requested to specifically provide that depreciation does not include land cost, as land is a non-depreciable asset.

## Commission's view/Decision: -

The Commission has considered the comments filed by HPPC and in order to impart more clarity, substitutes clause 14 (1) of the draft regulations, as under:-

"The value base for the purpose of depreciation shall be the Capital Cost of the asset admitted by the Commission. The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to a maximum of 90% of the capital cost of the project, excluding land cost, as land is a non-depreciable asset:"

## 9.10 Interest on Working Capital. – Chapter no.3 clause 16 (2) a Page no.20

HPPC has submitted that while calculating working capital requirement for projects using

Paddy Straw as single fuel, fuel cost for four months should be considered in line with CERC Regulations, 2024 instead of six months provided in the draft regulations.

## Submissions of M/s. Starwire on the Comments filed by HPPC

M/s. Starwire has submitted that the fuel is available mostly in one season and almost 80% of the consumption of the year has to be purchased in this season. Hence, working capital norms should consider 9-10 months of fuel cost. The second season, only allows very minimal quantity of supporting fuel to be purchased.

## Commission's view/Decision: -

The Commission observes that the issue was discussed in the order of the Commission dated 20.12.2019, while determining levelized tariff for the FY 2019-20 & FY 2020-21. The relevant para is reproduced hereunder:-

- "24. The Commission has taken note of the contention of the Intervener that Biomass projects based on air cooled condenser needs to be promoted in Haryana. The Commission agrees with the same given the fact that ground water is fast depleting in Haryana. However, the higher project cost, auxiliary consumption etc. are already built into the comparatively higher tariff of biomass-based projects to be set up in Haryana.
- 25. In the case of single fuel / paddy stubble-based (single fuel) power projects, given the fact that the project developers shall be required to collect the feed stock upfront at the end of paddy season for the entire year to meet its generation requirement, the working capital and interest thereto shall be considered for a period of 6 months, which in normal biomass-based projects, is 4 months. Additionally, in the case of single fuel CUF, Auxiliary Consumption and SHR has been considered in line with CERC as the HERC RE Regulations do not separately provide for the same."

Thus, the Commission has allowed state specific special dispensation in respect of paddy straw-based power projects being most effected by environmental issues caused by the menace of burning of paddy straw in the fields and has been determining levelized tariff in respect of paddy straw based power projects on the basis of above dispensations since the FY 2019-20.

Therefore, no further change in the draft regulation is required.

## 9.11 Operation and Maintenance Expenses: Additional point: To be added after Chapter 17 Clause no. (1) Page no.20

HPPC has suggested that for determining the normative "Operation and Maintenance" expenses, necessary data from all the RE generators should be collected and analyzed

by state Nodal agency on annual basis. The same is to be submitted to the Commission annually upto 31<sup>st</sup> May by the State Nodal agency for the actual Operation and Maintenance Expenses incurred by generators, such data with facilitate future analysis re-distribution of Operation and Maintenance expenses.

## Submissions of M/s. Starwire on the Comments filed by HPPC

M/s. Starwire has submitted that the Operation & Maintenance cost varies in every project depending on the installed capacity, location, type of fuel and many other factors. Hence, a study may be conducted to arrive at the actual O&M cost of all biomass power plants in the State.

## Commission's view/Decision: -

The Commission has considered the suggestions filed by HPPC as well as M/s. Starwire and is of the considered view that it would be more appropriate for the HPPC, being the beneficiary of RE power, to undertake such an exercise on an annual basis not only in respect of O&M expenses but also in respect of fuel cost, so that constructive comments backed by empirical data can be filed by them for consideration of the Commission, at the time of annual determination of levelized tariff.

Therefore, no further change in the draft regulation is required.

## 9.12 Fuel Cost: Chapter 7 Clause no. (46), Page no.29

HPPC has submitted that to gainfully utilize and thereby prevent burning of paddy straw / stubble in the farms, the Commission would endeavour to promote use of the same in the power projects. HAREDA may provide the relevant data collected from the field on a half yearly basis for consideration of the Commission. However, the details of usage of paddy straw / stubble shall be certified by the IPPs and verified by HAREDA based on the data emanating from the local authorities concerned.

Verification of usage of paddy straw by the IPP shall be carried out by HAREDA on monthly basis as Discoms does not have expertise for such activities and HAREDA have staff in each and every district.

## Submissions of M/s. Starwire on the Comments filed by HPPC

M/s. Starwire has submitted that the Ministry of Power has proposed for thermal plants to use Biomass Pellets. A system may be put in place to ensure that the pellets are being manufactured from paddy straw/stubble and not from other biomass fuels.

#### Commission's view/Decision: -

The Commission has examined the comments filed by HPPC as well as M/s.

Starwire and observes that regulation clause 9 (1) of the draft regulations already provides as under:-

"The State Nodal Agency i.e. HAREDA shall collect the relevant data on fuel cost and submit the same to the Commission on a half yearly basis."

However, HPPC, being the beneficiary of RE power, may also participate and coordinate with HAREDA in the conduct of such an exercise.

Therefore, no further change in the draft regulation is required.

## 9.13 Biogas based power projects: Chapter 10 clause no. (53) 6, Page no.32-33

HPPC has submitted that The Normative Operation and Maintenance (O&M) expenses shall be Rs. 72.25 Lakh/ MW for the base year i.e. the FY 2026-27 in line with CERC RE regulations 2024.

## Commission's view/Decision: -

The Commission has examined the relevant clause in the CERC RE Regulations, 2024, as averred by HPPC. The same is reproduced as under:-

"59. Operation and Maintenance Expenses

Normative O&M expenses for the first year of the Control Period, i.e. financial year 2024-25 shall be Rs. 72.25 lakhs per MW and shall be escalated at the rate specified in Regulation 19 of these Regulations for the Tariff Period."

From the above, it is apparent that O&M expenses of Rs. 72.25 lacs/MW specified in the CERC RE Regulations, 2024, is in respect of the FY 2024-25 which is to be escalated @ 5.25% p.a. for the subsequent years. Considering the same, as per CERC RE Regulations, 2024, O&M expenses for the FY 2026-27, in respect of biogas based power projects, comes to Rs. 80.04 lacs/MW, as against Rs. 73.05 lacs/MW specified in the draft HERC RE Regulations, 2025. In the draft HERC RE Regulations, 2025, the O&M expenses specified for the FY 2021-22 i.e. Rs. 62.60 lacs/MW has been escalated @ 2.93% p.a. upto the FY 2024-25 and thereafter @ 3.45% p.a., to arrive at Rs. 73.05 lacs/MW for the FY 2026-27.

Therefore, no further change in the draft regulation is required.

## 9.14 Renewable Purchase Obligation: Following clauses may be added: Chapter no.14 clause no. 63(1)

HPPC has submitted that any excess energy consumption under "**DRE**" in a particular year, may be utilized to meet the shortfall in achievement of stipulated wind renewable energy or hydro renewable energy consumption OR "Other RPO".

## Submissions of M/s. Starwire on the Comments filed by HPPC

M/s. Starwire has submitted that yearly RPO should be met and spill over should not be allowed.

## Commission's view/Decision: -

The Commission has already dealt with the issues relating to RPO in the earlier paragraphs of the present order. Hence, no further discussions on the same is required.

## 9.15 Information and data sharing by Biomass and bagasse based cogeneration project: Chapter no.3 clause no.3.10

HPPC has proposed that the Project Developer shall maintain the record on (a) Daily basis, (b) Monthly basis and (c) Annual basis (Financial Year) of following information:

- 1) Opening Balance of Biomass & Bagasse fuel, if any
- 2) Opening Balance of Calorific Value of Biomass & Bagasse fuel, if any
- 3) Quantity of Biomass & Bagasse received
- 4) Calorific Value of Biomass & Bagasse received, if determined by approved laboratory
- 5) Quantity of Biomass & Bagasse utilised for generation of electricity
- 6) Calorific Value of Biomass & Bagasse fuel utilised
- 7) Gross Electricity Generation
- 8) Auxiliary consumption
- 9) Net Electricity Generation as per SEA/JMR of SLDC/Discoms
- 10) Closing balance of quantity of biomass and bagasse fuel,
- 11) Closing Balance of Calorific Value of Biomass & Bagasse fuel etc.
- 12) Specific fuel Consumption

The above information shall be provided with monthly invoices raised by the Biomass & Bagasse Developer (Supplier) to the DISCOM (Procurer). Moreover, the Biomass & Bagasse Project Developer shall also upload the above data/information/details on its website duly updated on day-to-day basis. The state Nodal Agency shall verify above aspects on quarterly and annual basis and submit the same to Hon'ble Commission on annual basis upto 31th May of every year. such data with facilitate future analysis for determination of tariff pertaining to Financial & technical parameters. Any electricity generated through use of any other fuel other than Biomass & Bagasse fuel shall not be allowed.

Submissions of M/s. Starwire on the Comments filed by HPPC

M/s. Starwire has submitted that records are already being maintained and submitted to HPPC alongwith bills which is in line with the PPA. The present clause does not require any amendment as suggested by HPPC. Further, it is not possible to do GCV tests—and fuel consumptions on daily basis as the plant is operational 24/7 and it is very difficult to ascertain the daily consumption because it varies due to changes and variation in moisture, dust, etc. Further, not all generators maintain a website and since the meters have recently been changed by Discoms to meters which are connected online, the utilities are already having the data on a daily basis. The generators do not have access to this data. Hence, such kind of an exercise would not only be extremely onerous with generators devoting all their precious resources in data collection/reporting, but would also be futile.

## Commission's view/Decision: -

The Commission has considered the comments filed by HPPC as well as M/s. Starwire and observes that the draft regulation already provides for the generators to provide monthly fuel procurement and usage statement along with monthly energy bill. The copy of these statements are also provided to HAREDA. The relevant clause is reproduced hereunder:-

"37.	Fuel	Mix.	-	

- (4) The Project developer shall furnish monthly fuel (biomass mix) usage statement and monthly fuel (biomass mix) procurement statement duly certified by Chartered Accountant to the beneficiary (with a copy to appropriate agency that may be appointed / designated by the Commission for the purpose of monitoring fuel consumption and usage) for each month, along with the monthly energy bill.
- (5) Non-compliance of the aforesaid condition of fossil fuel usage by the project developer, during any financial year, shall result in withdrawal of applicability of tariff as per these Regulations for such biomass based power project. In such cases the PPA(s) shall be terminated and the Discoms (beneficiaries) shall be under no obligation to make any payments for the power supplied by the seller in breach of the regulation on fuel usage."

In view of the above, no change in draft regulations is required.

## 10. Comments by Starwire (India) Vidyut Pvt. Ltd. (Starwire):

The comments filed by Starwire dated 01.08.2025 and the Commission's views thereon, are as follows:-

## 10.1 Extension of Control Period or Review Period:

M/s. Starwire has averred that the extension of the control period should occur only under exceptional circumstances, with compelling reasons recorded by the Commission. In case of any exceptional circumstances requiring the extension of the Regulations, the escalation or inflationary cost parameters may need reconsideration.

## Commission's view/Decision: -

The Commission has examined the submissions of M/s. Starwire and the same is already been addressed in the preceding paras of this Order. Hence, no further discussion on the same is required.

## 10.2 Fuel Cost Escalation:

M/s. Starwire has submitted that the escalation factor of 5% minimum may be provided as against the proposal of 3.45%.

## Commission's view/Decision: -

The Commission has examined the submissions of M/s. Starwire and the same is already been addressed in the preceding paras of this Order. Hence, no further discussion on the same is required.

## 10.3 <u>Escalation factor of Operation and Maintenance Expenses:</u>

M/s. Starwire has averred that the annual escalation of 3.45% proposed to be considered under draft Regulation 17.3, is not in line with the prevailing market trend. The Commission is requested to consider that the O&M expenses ought to be escalated at the rate of 5.72% per annum, since this escalation is applicable for the entire useful life of the project. Even the Ld. CERC, under Regulation 19.2 of the CERC RE Regulations, has considered annual escalation of 5.25% per annum, which is far higher than what is currently proposed.

#### Commission's view/Decision: -

The Commission has examined the submissions of M/s. Starwire and is of the considered view that it would not be appropriate to keep separate escalation factors for fuel and O&M expense. Hence, in line with the previous RE Regulations of 2021, escalation factor of 3.45% p.a., as determined by Hon'ble CERC in respect of fuel cost, has been provided for O&M expenses as well.

Hence, no change in the draft regulations is required.

## 10.4 Fuel Mix:

M/s. Starwire has requested to clarify the distance/area considered for defining the term "vicinity" used under proposed Regulation 37 (1) with regard to fuel to be utilised in biomass power projects.

The Commission, in its Order dated 13.08.2014 in Case No. HERC / PRO - 50 of 2014 (Suo Motu), has observed that HAREDA, while approving DPR for biomass based RE Projects, should ensure that a minimum distance of 50 KM is maintained between such projects.

Accordingly, M/s. Starwire has proposed that the following may be added:-

"Note 1 – For purpose of the above regulation, the term "vicinity" means a distance of 50 KM radius.

Note 2- The State Nodal Agency shall ensure that a minimum distance of 80 km radius is maintained between two biomass power plants so as to ensure maximum availability of biomass fuels within the vicinity of the plants.

Note 3 - The State Nodal Agency shall monitor the installation of the new biomass plants and pellet briquette units in the vicinity of existing biomass plants so that sharp increases in fuel price are avoided."

## Commission's view/Decision: -

The Commission has examined the submissions of M/s. Starwire. It is observed that the issue has already been settled by the Commission in its order dated 26.03.2025, while addressing the comments filed by HPPC. The relevant part is reproduced hereunder: -

- "b) That Hon'ble Commission vide ibid draft order has accepted the cost of Paddy Straw & Biomass up to cost of transportation (Rs/MT) over an average distance of 25 KMs. In this context, reference is invited to Regulation 36 (2) of HERC RE Regulations 2021 which provides as under: -
- "36 (2) The Biomass Power Generating Companies shall have <u>appropriate fuel</u> <u>management plan</u> to ensure adequate availability of fuel to meet the respective project requirements."

In view of the said provision of Regulations, it may clearly be stated in the draft order that no benefit shall be given to generator for procurement of fuel beyond specified limit (i.e. 25 Kms).

#### Commission's view

The Commission has considered the submissions of HPPC. The Commission has consciously accepted the cost of paddy straw and biomass fuel considering the average distance of 25 KM, based on the study report which has suggested that

fuel in sufficient quantity is available within 25 KM radius of power generating plants. However, in order to promote utilization of biomass and paddy straw which are waste produced during agriculture and forestry operations, the Commission allows cost applicable for procurement from a distance up to 50 KM. However, as suggested by HPPC, the Commission makes it abundantly clear that no extra cost shall be allowed to the generators for procurement of fuel beyond specified limit of 50 KM."

Further, as pointed out by the intervener itself, the Commission has already imparted direction to HAREDA, in its order dated 13.08.2014 (Case No. HERC / PRO - 50 of 2014 Suo Motu), while determining generic tariff for the FY 2014–15 and FY 2015-16, to ensure that minimum distance of 50 KM is maintained between such projects. The relevant part of the ibid order is reproduced hereunder: -

"10. The Commission observes that in the case of biomass based RE projects availability of fuel at a reasonable cost is a critical issue. Hence HAREDA, while approving DPR for biomass based RE Projects, should ensure that a minimum distance of 50 KM is maintained between such projects. In its absence biomass based RE projects may become unviable vis-à-vis other non – solar RE projects due to the fact that the Commission has put a cap on the biomass fuel cost. The relevant order of the Commission is reproduced below:

"The fuel cost (biomass mix) decided by the Commission shall be subject to a cap of twice (2 times) the fuel cost (Rs / kWh) approved by the Commission for thermal power generation of HPGCL in Haryana. Beyond which the HPPC / Discoms shall be under no obligation to purchase power from the Company".

Hence, no change in the draft regulations is required.

## 10.5 Fuel Cost:

M/s. Starwire has submitted that the tariff, including the Fuel Cost, is mandated to be determined on the basis of suo-motu petition at least six months in advance at the beginning of each year of the Control Period as per proposed Regulation 7(1) of the Draft Regulations, yet there have been instances where such determination has fallen beyond the currency of tariff year of the Control Period due to various reasons. In such circumstances, the power plants are compelled to bear a higher fuel cost at the relevant point of time, than what is subsequently determined by the Hon'ble Commission. Therefore, carrying cost of the higher fuel cost may be provided. Conversely, if at all the

Fuel Cost is revised downwards by the Hon'ble Commission in the subsequent tariff year, the discoms are compelled to pay a higher Fuel Cost at the relevant point of time than what it finally determined by the Commission.

## Commission's view/Decision: -

The Commission has examined the submissions of M/s. Starwire and observes that the petitioner has filed a separate petition seeking carrying costs/ interest on the tariff differential amount on account of the Order dated 26.03.2025 in Case No. HERC/Petition No. 1 of 2025 passed by this Commission.

Since, the Commission is already seized of the matter, it would not be appropriate to deliberate on the same in the present proceedings to discuss the finalise draft HERC RE Regulations, which mainly deals with the norms/principles and methodologies for determination of the tariff applicable to RE power generation. Accordingly, the Commission, has not gone into the merits of the contention as the same is beyond the scope of the present proceedings. Hence, the same are not considered.

## 10.6 Blending of Solar Power for auxiliary consumption:

M/s. Starwire has submitted that the Biomass Power projects may be allowed to install roof top solar panels and solar panels on open water storage ponds upto an extent of 10% of their project capacity and to use the said solar power generated from the same for auxiliary consumption purposes.

The Ld. RERC has made provisions in its RE Regulations (Regulation 44), permitting the use/blending of solar power by the biomass power plants, upto 15% of total energy generation.

## Commission's view/Decision: -

The Commission has examined the submissions of M/s. Starwire and observes that allowing an existing biomass generator to meet its auxiliary consumption requirement with solar installed on rooftop or on open water storage ponds, shall require further deliberations including examination of the existing clauses in the PPA. The petitioner may, if so desire, file a separate petition seeking the same.

Accordingly, the Commission, is not gone into the merits of the contention of the intervener. Hence, the same are not considered.

## 11. Comments by Indian Energy Exchange Ltd. (IEX):-

The comments filed by IEX vide office Memo No. IEX/RA/030/25-26 dated 01.08.2025 and Commission's view thereon are as under:-

M/s. IEX has submitted that the draft regulations provides that the following percentage of total energy consumed shall be renewable energy along with/through storage (Energy Storage Obligations - ESO), including pumped storage projects (PSPs) having capacity more than 25 MW:

F.Y.	Storage (on Energy basis)	Storage (on Energy basis)	
2026-27	2.5%		
2027-28	3.0%		
2028-29	3.5%		
2029-30	4.0%		

In this regard, the followings have been suggested:-

- 1. As per the above para 63 (9), an obligated entity can meet the storage obligations by using RE along with/ through storage or pumped storage projects (PSPs) having capacity more than 25 MW.
- 2. As per para 63 (1) (b) of the draft regulations, 'Hydro power Purchase Obligation (HPO)' can be met from the PSPs commissioned after 31st March 2024 and as per para 63 (1) (d) of the draft regulations, 'Other RPO' can be met from the PSPs commissioned before 1st April 2024. PSPs seem to have inadvertently been included in both HPO/Other RPO and the ESO. This may lead to duplicity in accounting of the same PSP quantum. Instead, to rectify the above and bring clarity, the ESO% may be aligned with MOP Order dated 22.07.2022 and may include only the BESS."

## Commission's view/Decision:

The Commission has examined the submissions of IEX and observes that the same is already been addressed in the preceding paras of this Order. Hence, no further discussion on the same is required.

# 12. Comments by Chanderpur Renewal Power Co. Pvt. Ltd. and Yamunanagar Jagadhri Chamber of Commerce and Industry

The comments filed by M/s. Chanderpur Renewal Power Co. Pvt. Ltd. and M/s. Yamunanagar Jagadhri Chamber of Commerce and Industry, dated 30.07.2025 and 01.08.2025, respectively, are identical and have been merged for the sake of brevity and prolixity. Accordingly, the issue raised by them as well as Commission's view thereon are as under:-

The intervener (s) have submitted that in the draft regulations, technology specific parameters have been specified for every type of renewable energy power project. However, while providing for technology specific parameters for RDF Plants – only RDF plants based on Municipal Solid Waste (MSW) have been prescribed. Thus, as stated

above, <u>only RDF based power projects have again been left out</u> from the Chapter 11 prescribing technology specific parameters.

The intervener (s) have further submitted that day ahead scheduling should be exempted for the RE Captive Power Plants up to 2 MW based on Biomass Gasifier, RDF as well as all other RE Based Power Plants, irrespective of the fact that they are fully RE open access captive consumer or Partial RE open access.

## **Commission's view/Decision:**

The Commission has considered the submissions of the intervener (s) herein that technology specific parameters may also be specified for RDF Plants using biomass. However, as averred by HPPC, Hon'ble CERC has not determined such parameters. In absence of the same, Commission finds it difficult to specify generic parameters. However, the generators using such technology, after entering into a PPA with HPPC to that effect, may approach this Commission for project specific tariff determination.

Further, regarding the issue of day ahead scheduling raised by the intervener (s), the Commission observes that as per regulation 10 of the draft RE Regulations, Biomass based power generator with installed capacity of 10 MW and above are subjected to scheduling and dispatch as specified under Haryana Grid Code and other relevant regulations including amendments thereto. The requirement of day ahead scheduling to be provided by partial open access consumers is governed by HERC (Open Access) Regulations, 2012, as amended from time to time. Therefore, any relaxation under the said regulations cannot be considered in the present proceedings.

Therefore, no change in the draft regulations is required.

13. The Commission has further re-examined regulation clause 65 (5) of the draft regulations, which provides as under:-

"If the Commission is satisfied that the State Agency is not able to discharge its functions satisfactorily, it may by general or special order, and by recording reasons in writing, designate any other agency to function as State Agency as it considers appropriate."

The Commission is of the considered view that the option to re-designate any other agency as State Agency, in view of its unsatisfactory performance, is not going to serve any fruitful purpose as HAREDA is the only agency having the mandate to promote renewable energy in the State of Haryana. Rather, a provision for imposition of penalty on HAREDA, in such cases, may be kept. Accordingly, the regulation clause 65 (5) of

the draft regulations, shall be amended as under:-

"65 (5) If the Commission is satisfied that the State Agency is not able to discharge its functions satisfactorily, it may by general or special order, and by recording reasons in writing, may impose such penalty as it considers appropriate."

- 14. A public hearing was held on 04<sup>th</sup> September, 2025. The Commission upon hearing the parties, decided that in order to garner more insight on the issues raised by the interveners herein, their comments/suggestion filed in the Commission shall be uploaded on the website of the Commission. HPPC including other interveners may file their comments on the same, latest by 20.09.2025. The case was finally heard on 26.09.2025. The representatives of intervenors present during the hearing, mainly reiterated the contents of their written comments/submissions, which has been reproduced at relevant places in the present order and discussed at length before arriving at any conclusion. Hence, for the sake of brevity the same has not been discussed herein again. The issues raised by the intervener have been addressed in the preceding paras in this order.
- 15. Accordingly, the Commission approves the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2025 as well as Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2021, (3rd Amendment) 2025, attached to the present order, as Annexure -A & B, respectively. Further, the indicative levelized tariff, for various technologies of biomass/bagasse/biogas, has been determined for the FY 2025-26 and FY 2026-27, comprising of levelized fixed cost for the entire useful life of the projects and fuel cost for the FY 2025-26 and FY 2026-27, respectively, as per the parameters specified in this order, as per Annexure C and D, respectively.

The same shall be sent for Gazette Notification at the earliest.

This Order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 29.10.2025.

Date: 29.10.2025 (Shiv Kumar) (Mukesh Garg) (Nand Lal Sharma)
Place: Panchkula Member Member Chairman



#### Annexure 'A'

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

#### **Notification**

Date of Order : .10.2025

**Regulation No. HERC/\_\_/2025**: - 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, after previous publication, makes the following regulations: -

## Chapter – 1 General

- 1. Short title, commencement, extent of application and interpretation.
  - (1) These Regulations may be called the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2025.
  - (2) These regulations shall come into force on 01.04.2026 and unless reviewed earlier or extended by the Commission, shall remain in force up to 31.03.2029.
  - (3) These regulations shall extend to all grid connected renewable energy projects and obligated entities in the State of Haryana.

#### 2. Definitions. -

- (1) In these regulations, unless the context otherwise requires,
  - (1) 'Act' means the Electricity Act, 2003 (36 of 2003);
  - (2) 'Auxiliary energy consumption' or 'AUXe' in relation to a period in case of a generating station means the quantum of energy consumed by auxiliary equipment of the generating station, and transformer losses within the generating station, expressed as a percentage of gross energy generated at the generator terminal of the generating station during the period;
  - (3) 'Biomass' means wastes produced during agricultural and forestry operations (for example straws and stalks) or produced as a by-product of processing operations

of agricultural produce (e.g., husks, shells, deoiled cakes, etc); wood produced in dedicated energy plantations or recovered from wild bushes/weeds whichever permissible; and the wood waste produced in some industrial operations; including such other wastes as may be recognized by the Central Government, as being part of biomass;

- (4) 'Biomass gasification' means the process of incomplete combustion of biomass resulting in the production of combustible gases consisting of a mixture of carbon monoxide (CO), hydrogen (H2) and traces of methane (CH4);
- (5) 'Biogas' means a gas produced when organic matter like crop residues, sewage, and manure breaks down (ferments) in an oxygen-free environment;
- (6) 'Capital cost' means the capital cost as defined in the relevant sub regulations of these Regulations;
- (7) 'Central Agency' means the agency operating the National Load Dispatch Centre or such other agency as the Central Commission may designate from time to time;
- (8) "Certificate" means the renewable energy certificate issued by the Central Agency in accordance with the procedures prescribed by it and under the provisions specified in the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issue of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2009 as amended from time to time;
- (9) 'Central Electricity Regulatory Commission (CERC)' means the Central Electricity Regulatory Commission referred to in sub-section (1) of section 76 of the Act;
- (10) 'Commission' means the Haryana Electricity Regulatory Commission;
- (11) 'Conduct of Business Regulations' means the Haryana Electricity Regulatory Commission (Conduct of Business) Regulations, 2004 as amended from time to time;
- (12) 'Control Period or Review Period' means the period during which the norms for determination of tariff and other provisions specified in these regulations shall remain valid;

- (13) 'Floor Price' means the minimum price determined by the Central Commission in accordance with these regulations at and above which the renewable energy certificate can be traded in the power exchange;
- (14) 'Forbearance price' means the ceiling price as determined by the Central Commission in accordance with the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issue of Renewable energy Certificate for Renewable Energy Generation) Regulations, 2010, as amended from time to time, within which the Certificate can be traded in power exchange;
- (15) 'Floating solar project' or 'FPV' means a solar PV power project where the arrays of photovoltaic panels on the structure of the project float on top of a body of water, such as an artificial basin or lake, with the help of a floater, anchoring, and mooring system;
- (16) 'Gross calorific value' or 'GCV' in relation to a fuel used in generating station means the heat produced in kCal by complete combustion of one kilogram of solid fuel or one litre of liquid fuel or one standard cubic meter of gaseous fuel, as the case may be;
- (17) 'Gross station heat rate' or 'Gross SHR' means the heat energy input in kCal required to generate one kWh of electrical energy at generator terminals of a renewable energy generating station that uses fuel for generations
- (18) 'Hybrid Solar Thermal Power Plant' means the solar thermal power plant that uses other forms of energy input sources along with solar thermal energy for electricity generation, and wherein not less than 75% of electricity is generated from solar energy component;
- (19) 'Installed capacity' or 'IC' means the summation of the name plate capacities of all the units of the generating station or the capacity of the generating station (reckoned at the generator terminals/Solar Inverter in MW / MVA), as the case may be;. In the case of Solar PV power projects and Floating solar projects, installed capacity shall be the sum of name plate capacities (Nominal AC power) of the inverters of the project;

- (20) 'Inter-connection Point' shall mean interface point of renewable energy generating facility including Waste to Electricity projects with the transmission system or distribution system,
  - in relation to wind energy projects, Solar Photovoltaic Projects, renewable hybrid energy projects and renewable energy with storage Projects, interconnection point shall be line isolator on outgoing feeder on High Voltage (HV) side of the pooling sub-station;
  - in relation to small hydro power, biomass power, Waste to Energy projects and non-fossil fuel-based cogeneration power projects and Solar Thermal Power Projects, the inter-connection point shall be line isolator on outgoing feeder on HV side of generator transformer;

Whereas, 'Pooling Sub-Station' means a Sub-Station consisting of a step-up transformer and associated switchgear to the Low Voltage (LV) side of which several Wind or Solar Energy Generators are connected.

Provided that, where a Generating Unit is connected through a common or an individual feeder terminating at a Sub-Station of a Distribution Licensee or the State Transmission Utility, such Sub-Station shall be treated as the Pooling Sub-Station for such Wind or Solar Energy Generator for the purposes of these Regulations.

- (21) 'Non-firm power' means the power generated from renewable sources, the hourly variation of which is dependent upon nature's phenomenon like sun, cloud, wind, etc., that cannot be accurately predicted;
- (22) "Levelized Tariff" means the tariff calculated by carrying out levelisation for 'useful life' of each technology considering the discount factor for time value of money.
- (23) 'MNRE' means the Ministry of New and Renewable Energy of the Government of India;
- "Municipal Solid Waste" means and includes commercial and residential wastes generated in a municipal or notified area in either solid or semi solid form excluding industrial hazardous wastes but including treated bio-medical waste;
- (25) 'Non-fossil fuel based co-generation' means the process in which more than one form of energy (such as steam and electricity) are produced in a sequential manner by use of biomass including Bagasse.

- (26) 'Obligated entity' means an entity in the State of Haryana which is mandated to fulfill renewable purchase obligation under these Regulations and include the following:
  - i) Distribution licensee(s)
  - ii) Open Access consumers including short term open access consumers, and
  - iii) Grid Connected Fossil Fuel based Captive Power Plant of 5 MW and above including Grid Connected Fossil Fuel based Co-generation captive plant of 5 MW and above.
- (27) 'Operation and maintenance expenses' or 'O&M expenses' means the expenditure incurred on operation and maintenance of the project, or part thereof, and includes the expenditure on manpower, repairs, spares, consumables, insurance and overheads;
- (28) "Power Exchange' means any exchange operating as the power exchange for electricity as approved by the CERC;
- (29) 'Preferential tariff' or "Feed in Tariff" means the tariff fixed by the Commission for sale of energy from a generating station based on renewable energy sources to a distribution licensee:
- (30) 'Project' means a generating station or the evacuation system up to interconnection point, as the case may be, and in case of a small hydro generating station includes all components of generating facility such as dam, intake water conductor system, power generating station and generating units of the scheme, as apportioned to power generation;
- (31) 'Renewable Energy' means the electricity generated from renewable energy sources;
- (32) 'Renewable Energy Power Plants' means the power plants other than the conventional power plants generating electricity from renewable energy sources;
- (33) 'Renewable Energy Sources' means renewable sources such as small hydro, wind, solar including its integration with combined cycle, biomass (including Bagasse), bio fuel, urban or municipal waste and other such sources as approved by the MNRE;

- (34) 'Small Hydro' means Hydro Power projects with a station capacity up to 25 MW or as specified in the National Tariff Policy or by the Central Government from time to time;
- (35) 'Pumped storage hydro project' means a hydro power projects which generates power through water stored as potential energy, pumped from a lower elevation reservoir to higher elevation reservoir.
- (36) 'Refuse derived fuel' or 'RDF' means a segregated combustible fraction of solid waste other than chlorinated plastics in the form of pellets or fluff produced by drying, de-stoning, shredding, dehydrating, and compacting combustible components of solid waste that can be used as fuel;
- (37) 'Renewable energy with storage project' means a combination of renewable energy project with storage or a combination of renewable hybrid energy project with storage at the same inter-connection point;
- (38) 'Renewable hybrid energy project' means a renewable energy project that produces electricity from a combination of renewable energy sources, connected at the same inter-connection point;
- (39) 'Solar PV power' means the Solar Photo Voltaic power project that uses sunlight for direct conversion into electricity through Photo Voltaic Cells;
- (40) 'Solar Thermal power' means the Solar Thermal power project that uses sunlight for conversion of heat energy into electricity through Concentrated Solar Power technology based on either line focus or point focus principle;
- (41) "Storage" means energy storage system utilizing methods and technologies like, solid state batteries, flow batteries, pumped storage, compressed air, fuel cells, hydrogen storage or any other technology, to store various forms of energy and to deliver the stored energy in the form of electricity;
- (42) 'State agency' means the agency in the State of Haryana to be designated by the Commission to act as the agency for accreditation and recommending the renewable energy projects for registration and to undertake functions under these regulations;

- (43) 'Tariff period' means the period for which tariff / price for sale of power is determined by the Commission on the basis of norms specified in these Regulations;
- (44) 'Useful Life' in relation to a unit of a generating station including evacuation system shall mean the following duration from the date of commercial operation (COD) of such generation facility, namely:
  - a) Wind energy power project 25 years
  - Biomass power project (with Rankine cycle Technology) non-fossil fuel cogeneration 25 years
  - c) Small Hydro Plant 40 years
  - d) Solar PV/Solar thermal power plants/floating solar project/ 25 years
  - e) Processed Municipal Solid Waste (MSW) WtE based power projects 20 years
  - f) Biomass gasifier power plants 25 years
  - g) Biogas power plants 25 years
  - h) Renewable hybrid energy project Minimum of the Useful Life of different RE technologies combined for Renewable Hybrid Energy Project for Composite Tariff as specified under Regulation 58.
  - i) Renewable energy with storage project Same as Useful Life of project assuming that there is no storage.
- (45) 'Year' means a financial year.
- All other expressions used herein but not specifically defined herein but defined in the Act shall have the meaning assigned to them in the Act. The other expressions used herein but not specifically defined in the regulations or in the Act but defined under Haryana Electricity Reform Act, 1997 (Act 10 of 1998) or the Indian Electricity Grid Code or the Haryana Grid Code or the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff ) Regulations, 2024, as amended / reenacted from time to time, shall have the meanings assigned to them respectively in

the Haryana Electricity Reform Act, 1997 (Act 10 of 1998) or the Indian Electricity Grid Code or the Haryana Grid Code or any other relevant Regulations in vogue, provided that such definitions in the Haryana Electricity Reform Act, 1997 are not inconsistent with the provisions of the Electricity Act, 2003;

- 3. Eligibility Criteria. For the purpose of these regulations, a project shall be treated as renewable energy power project, as acknowledged by MNRE only, meeting the following criteria:-
  - (a) Wind power project –The project that uses new wind turbine generators and is located at sites, on-shore or off-shore, approved by the State Nodal Agency.
  - (b) Small hydro project The project that uses new plant and machinery located at sites approved by the State Nodal Agency and installed power plant capacity to be lower than or equal to 25 MW at single location.
  - (c) Biomass power project Biomass power projects using new plant and machinery using biomass fuel sources.
  - (d) Non-fossil fuel-based co-generation project The project that uses new plant and machinery, and is based on topping cycle mode of co-generation.
    - Topping cycle mode of co-generation Any facility that uses non-fossil fuel input, including bagasse, for the power generation and also utilizes the thermal energy generated for useful heat applications in other industrial activities simultaneously:

Provided that for the co-generation facility to qualify under topping cycle mode, the sum of useful power output and one half the useful thermal output be greater than 45% of the facility's energy consumption, during crushing season.

Explanation- For the purposes of this clause,

'Useful power output' is the gross electrical output from the generator. There will be an auxiliary consumption in the cogeneration plant itself (e.g. the boiler feed pump and the FD/ID fans). In order to compute the net power output, it would be necessary to subtract the auxiliary consumption from the gross output. For simplicity of calculation, the useful power output is defined as the gross electricity (kWh) output from the generator.

- ii) 'Useful Thermal Output' is the useful heat (steam) that is provided to the process by the cogeneration facility.
- iii) 'Energy Consumption' of the facility is the useful energy input that is supplied by the fuel (normally bagasse or other such biomass).
- iv) 'Topping Cycle' means a co-generation process in which thermal energy produces electricity followed by useful heat application.
- (e) Processed Municipal Solid Waste based WtE power projects The project shall qualify to be termed as Municipal Solid Waste based WtE power projects, if it is using new plant and machinery and using Municipal solid waste as fuel source for generation of electricity.
- (f) Solar PV and Solar Thermal Power Projects Based on Technologies approved by MNRE / HAREDA.
  - Provided that floating solar projects installed with existing renewable energy projects other than ground mounted Solar PV projects shall be treated as renewable hybrid energy projects.
- (g) Biomass Gasifier Power Projects The projects shall qualify as gasifier-based power project provided it is using new plant and machinery and having a grid connected system that uses 100% syngas/producer gas engine with MNRE approved gasification technology and shall use non-fossil fuel as approved by MNRE.
- (h) Biogass Power Projects The projects shall qualify as biogas-based power project provided it is using new plant and machinery and having a grid connected system that and uses 100% biogas fired engine with MNRE approved technology.
- (i) Renewable hybrid energy project The rated capacity of generation from one renewable energy source is at least 33% of the rated capacity of generation from other renewable energy source(s), which operate at the same point of interconnection: Provided that energy is injected into grid at the same interconnection point and metering is done at such common interconnection point accordingly.

- (j) Municipal solid waste-based power projects The project uses new plant and machinery based on Rankine cycle technology and uses municipal solid waste as fuel.
- (k) Refuse derived fuel-based power projects The project uses new plant and machinery based on Rankine cycle technology and uses refuse derived fuel as fuel.
- (I) Renewable energy with storage project The renewable energy project including renewable hybrid energy project that uses, partly or fully, renewable energy generated from such project to store energy into storage facility which is connected at the same point of interconnection as the renewable energy project.

## Explanation:

The necessity of new plant and machinery shall be applicable where tariff is determined by the Commission under Section 62 of the Act as well as procurement of power by the Distribution Licensee(s) under Section 63 of the Act in case the bidding documents / guidelines so provides. The dispensation shall include the RE Projects where capital subsidy is claimed by the project developer.

#### Chapter – 2 Norms

4. **Control Period or Review Period. –** The Control Period under these Regulations shall be from the FY 2026-27 to the FY 2028-29.

Provided that the benchmark capital cost and tariff for Solar PV rooftop, ground mounted, canal based / Water Works solar projects, wind power, small hydro shall be determined on case specific basis only.

Provided also that the revision in Regulations for next Control Period shall be undertaken at least six months prior to the end of the first Control Period and in case Regulations for the next Control Period are not notified until commencement of next Control Period, the tariff norms as per these Regulations shall continue to remain applicable with appropriate escalation factor until notification of the revised Regulations and the Control Period shall be deemed to have been extended up to the date of notification of the next Control Period.

#### 5. Tariff Period. –

- (1) The Tariff Period for Renewable Energy power projects shall generally correspond to their respective project life or as may be agreed upon in the PPA.
- (2) Tariff period under these Regulations is for Renewable Energy Power Plants with entirely new plant and machinery. The first year tariff shall be applicable from the CoD of the project and shall continue for 12 months from the CoD and thereafter the tariff for the second year shall be applicable on year to year basis i.e. for first 12 months from CoD, first year tariff shall be applicable, then for next twelve months second year tariff shall be applicable and so on and each period of such 12 months shall be termed as the tariff year.
- (3) Tariff determined as per these Regulations shall be applicable for Renewable Energy power projects, only for the duration of the Tariff Period as stipulated under Regulation 5(1).

#### 6. Project Specific tariff. -

(1) Discoms/HPPC shall endeavour to purchase all electricity through competitive bidding route u/s 63 of the Electricity Act, 2003. However, tariff for grid connected renewable energy projects may be determined by the Commission under Section

- 62 read with Section 86 of the Act as per these Regulations, in line with Power Purchase Agreement (PPA) approved by the Commission to this effect.
- (2) Determination of Project specific Tariff for generation of electricity from such renewable energy sources shall be in accordance with such terms and conditions as stipulated by the Commission.
  - Provided that the financial and operational norms as specified in these Regulations, shall be ceiling norms while determining the project specific tariff.
  - Provided further that the levelized tariff of project calculated on the basis of norms specified in these Regulations shall be the ceiling tariff.
- (3) In the cases where RE projects is selected through competitive bidding (s), the terms and conditions of the Guidelines as mentioned in section 63 of the Act and the bidding documents thereto shall prevail.

#### 7. Petition and proceedings for determination of tariff. –

- (1) The Commission shall determine the generic tariff on the basis of suo-motu petition at least six months in advance at the beginning of each year of the Control period for renewable energy technologies for which norms have been specified under the Regulations.
- (2) A petition for determination of project specific tariff shall be accompanied by such fee as may be specified in the HERC Fee Regulations in vogue and shall be accompanied by the following:
  - a) Information in forms 1.1, 1.2, 2.1,2.2 and 2.3 as the case may be, and as appended to these regulations;
  - b) Detailed project report outlining technical and operational details, site specific aspects, premise for capital cost and financing plan etc.
  - c) A statement of all applicable terms and conditions and expected expenditure for the period for which tariff is to be determined.
  - d) A statement containing full details of calculation of any subsidy and incentive received, due or assumed to be due from the Central Government and/or State Government. This statement shall also include the proposed tariff calculated without consideration of the subsidy and incentive.
  - e) Copy of Power Purchase Agreement (PPA), approved by the Commission.

- f) Following documents in case of petition for determination of project specific tariff by renewable energy projects, where tariff from such renewable energy sources is generally determined through competitive bidding process in accordance with provisions of Section 63 of the Act:
  - Rationale for opting project specific tariff instead of competitive bidding;
     and
  - ii. Competitiveness of the proposed tariff vis-à-vis tariff discovered through competitive bidding/ tariff prevalent in the market.
  - iii. Comparative details showing that the tariff proposed is aligned with the prevalent market conditions.
- g) Any other information that the Commission may require the petitioner to submit.
- (3) The proceedings for determination of tariff shall be in accordance with the HERC (Conduct of Business) Regulations 2019, as amended from time to time.

#### 8. Tariff Structure. -

- (1) The tariff for renewable energy technologies shall be single part tariff consisting of the following fixed cost components:-
  - (a) Return on equity capital;
  - (b) Interest on loan capital;
  - (c) Depreciation;
  - (d) Interest on working capital;
  - (e) Operation and maintenance expenses;

Provided that for renewable energy technologies having fuel cost component, like biomass power projects and non-fossil fuel based cogeneration, single part tariff with two components, fixed cost component and fuel cost component, shall be determined.

Provided that MAT/Corporate Tax shall be a pass through on submission of supporting documents. The same shall be limited to applicable tax rate on the normative return on equity.

#### 9. Tariff Design. -

(1) The generic tariff, for the control period as per these Regulations, shall be determined, for the entire tariff period/useful life of the project.

Provided that for renewable energy projects having single part tariff with two components viz. fixed cost component shall be determined on levelized basis considering the year of commissioning of the project while fuel cost component shall be determined on annual basis and the same shall also be prospectively (i.e. from the date of the Order) applicable for the projects commissioned during the previous control periods.

The State Nodal Agency i.e. HAREDA shall collect the relevant data on fuel cost and submit the same to the Commission on a half yearly basis.

- (2) For the purpose computation of levellised tariff, the discount factor equivalent to weighted average cost of capital {Term Loan (R) and Return on Equity (RoE)} shall be considered i.e. {(R x 0.7) + (RoE x 0.3)}.
- (3) The above principles shall also apply for the determination of project specific tariff under these Regulations.

#### 10. Despatch principles for electricity generated from Renewable Energy Sources. -

- (1) All renewable energy power plants except for Biomass power plants of installed capacity 10 MW and above shall be treated as 'MUST RUN' power plants. Further, 100% paddy straw based power plants even with the installed capacity of 10 MW and above, shall be treated as 'Must Run' power plants. However, all biomass generators with installed capacity of 10MW and above, shall be subjected to scheduling and dispatch principle, as specified under Haryana Grid Code and other relevant regulations including amendments thereto.
- (2) The scheduling and deviation settlement shall be as per the Haryana Electricity Regulatory Commission (Forecasting, Scheduling and Deviation Settlement for Solar and Wind Generation) Regulations, 2019 / Haryana Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2019, as may be amended from time to time.

#### Chapter – 3 Financial Principles

11. **Capital Cost.** – The norms for the Capital cost as specified in the subsequent technology specific chapters shall be inclusive of all capital work including plant and machinery, initial spares, civil work, erection and commissioning, financing and interest during construction, and evacuation infrastructure up to the inter-connection point.

Provided that for project specific tariff determination, the generating company shall submit the break-up of capital cost items along with its petition, including DPR, Lender's Engineer Report and justification (item-wise) for any time/cost over-run.

Provided further that the capital subsidy provided by the Government as per prevailing scheme/policy has not been considered, while considering the capital cost of the project in this Tariff Order. Therefore, any grant, subsidy or incentive availed by the renewable energy project shall be deducted by the beneficiaries in subsequent bills after receipt of such grant, subsidy or incentive.

Provided further that in case where land for the project is acquired on lease basis, the cost of land to be considered as part of capital cost shall be determined as per the Land Lease Agreement (s).

#### 12. **Debt Equity Ratio**. –

- (1) For generic tariff to be determined, based on suo motu petition, the normative debt equity ratio shall be 70: 30.
- (2) For Project specific tariff, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff. Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

Provided also that debt equity ratio shall be considered after deducting the amount of grant or capital subsidy received for the project for arriving at the amount of debt and equity.

Explanation-The premium, if any, raised by the generating company, while issuing share capital and investment of internal resources created out of its free reserve, for the

funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, subject to the ceiling limit of 30%, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the renewable energy project. The un-discharged liabilities, if any, shall be reduced from the capital cost.

(3) The project developer shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding the infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the renewable energy project.

#### 13. Loan and Finance Charges. -

- (1) For the purpose of determination of tariff, loan tenure of 15 years shall be considered.
- (2) (a) The loans arrived at in the manner indicated above shall be considered as gross normative loan for calculation for interest on loan. The normative loan outstanding as on 1<sup>st</sup> April of every year shall be worked out by deducting the cumulative repayment up to March 31<sup>st</sup> of the previous year from the gross normative loan.
  - (b) For the purpose of computation of tariff, the normative interest rate shall be considered as the average Marginal Cost of funds based lending rate (MCLR) (one-year tenor) of SBI prevailing during the last six months plus a margin of up to 200 basis points i.e. 2%.
  - (c) Notwithstanding any moratorium period availed by the generating company, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

#### 14. **Depreciation. –**

- (1) The value base for the purpose of depreciation shall be the Capital Cost of the asset admitted by the Commission. The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to a maximum of 90% of the capital cost of the project, excluding land cost, as land is a non- depreciable asset.
  - Provided that, no depreciation shall be allowed to the extent of grant or capital subsidy received for the project.
- (2) Depreciation rate for the first 15 years of the Tariff Period shall be 4.67% per annum charged on the capital cost and the remaining depreciation (i.e. 90% of the capital cost

as reduced by the depreciation charged in first 15 years) shall be spread over the remaining useful life of the project from 16<sup>th</sup> year onwards.

(3) Depreciation shall be chargeable from the first year of commercial operation.

Provided that in case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

#### 15. Return on Equity. –

- (1) The value base for computing equity eligible for return shall be lower of the two either 30% of the capital cost or actual equity (in case of project specific tariff determination) as determined under these Regulations.
- (2) The normative Return on Equity shall be as under:
  - a) 14% per annum calculated on normative Equity Capital.
  - b) MAT/Corporate Tax applicable shall be considered as pass through.

Provided that the applicable MAT / Corporate Tax shall be separately invoiced as per the actual paid at the rate as declared by the Income Tax Department. The Generator shall raise the bill for reimbursement of MAT / Corporate Tax applicable on Return on Equity in 12 equal installments which shall be payable by the beneficiaries.

#### 16. Interest on Working Capital. -

- (1) The Working Capital requirement in respect of wind energy projects, small hydro power, solar PV and Solar thermal power projects and Processed Municipal Solid Waste (WtE) projects shall be computed in accordance with the following:
  - a) Operation & Maintenance expenses for one month;
  - Receivables equivalent to 45 days of fixed and energy charges for sale of electricity calculated on the normative CUF / PLF;
  - c) Maintenance spare @ 15% of operation and maintenance expenses.
- (2) The Working Capital requirement in respect of biomass power projects (Rankine Cycle Technology), Biomass Gasifier / Bio gas based projects and bagasse / nonfossil fuel based co-generation projects shall be computed as under:-
  - a) Fuel costs for four months at normative PLF;
     Provided that fuel cost for six months at normative PLF shall be provided for projects using Paddy Straw as single fuel.
  - b) Operation & Maintenance expense for one month;

- Receivables equivalent to 45 days of fixed and variable charges for sale of electricity calculated on the normative PLF;
- d) Maintenance spare @ 15% of operation and maintenance expenses.
- (3) Interest on Working Capital, for the purpose of tariff determination, shall be computed at the average Marginal Cost of funds based lending rate (MCLR) (one year tenor) of SBI prevailing during the last available six months plus an appropriate margin not exceeding 200 basis points i.e. 2%.
- (4) In case of renewable hybrid energy projects, the Working Capital requirement shall be the sum of the Working Capital requirement determined as per norms applicable for renewable energy sources, in proportion to their rated capacity in the project.

#### 17. Operation and Maintenance Expenses. –

- (1) 'Operation and Maintenance or O&M expenses' shall comprise repair and maintenance (R&M), establishment including employee expenses, and administrative and general expenses.
- (2) Operation and maintenance expenses shall be determined for the Tariff Period based on normative O&M expenses specified in these Regulations for the first Year of the Control Period.
- (3) Normative O&M expenses allowed during the first year of the Control Period under these Regulations shall be escalated at the rate of 3.45% per annum over the Tariff Period.

#### 18. Rebate. -

(1) For payment of bills of the generating company through revolving and valid letter of credit on presentation or through National Electronic Fund Transfer (NEFT) or Real Time Gross Settlement (RTGS) payment mode within a period of 5 days of presentation of bills, a rebate of 1.5% on bill amount shall be allowed.

Explanation: In case of computation of '5 days', the number of days shall be counted consecutively without considering any holiday. However, in case the last day or 5th day is an official holiday, the 5th day for the purpose of rebate shall be construed as the immediate succeeding working day.

- (2) Where payments are made on any day after 5 days within a period of one month from the date of presentation of bills by the generating company, a rebate of 1% shall be allowed.
- 19. Late payment surcharge. In case the payment of any bill for charges payable under these regulations is delayed beyond a period of 45 days from the date of presentation of bills, a late payment surcharge as specified in the Ministry of Power - Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 as amended from time to time shall be levied by the generating company.

# 20. Sharing of CDM Benefits. -

- (1) The proceeds of carbon credit from approved CDM project, after deduction of expenses incurred by the generating company for registration and approval of the project as CDM project shall be shared between generating company and beneficiaries concerned in the following manner:-
  - a) 100% of the gross proceeds on account of CDM benefit to be retained by the project developer in the first year after the date of commercial operation of the generating station i.e. 12 months from CoD;
  - b) In the second year, the share of the beneficiaries shall be 10% which shall be progressively increased by 10% every year till it reaches 50%, where after the proceeds shall be shared in equal proportion, by the generating company and the beneficiaries.

Provided that in case the Concession Agreement or PPA has specific provision regarding sharing of CDM benefits, the same shall be applicable in such cases.

- 21. **Sharing of Other Income** Other Income i.e. proceeds from sale of bio-fertilizer/bye products etc. shall be shared in equal proportion, by the generating company and the beneficiaries.
- 22. **Subsidy or incentive by the Central / State Government. –** The Commission shall take into consideration any incentive or subsidy offered by the Central or State Government, available across the board to all the generating company, for the renewable energy power plants while determining tariff under these Regulations.

Provided, where there is no up-front subsidy/grant/incentive, the tariff shall be worked out without subsidy/grant/incentive.

Provided further that any such assistance received by the generator shall be immediately

passed on to the beneficiary.

Provided that the following principles shall be considered for ascertaining income tax benefit on account of accelerated depreciation, if availed, for the purpose of tariff determination:

- i. Assessment of benefit shall be based on normative capital cost, accelerated depreciation rate and corporate income tax rate as per relevant provisions of the Income Tax Act, 1961, as amended from time to time; and
- ii. Capitalization of renewable energy projects during the second half of the fiscal year.
- iii. Per unit benefit shall be derived on a levelized basis at a discount factor equivalent to the weighted average cost of capital.

Any grant, subsidy or incentives availed by renewable energy project, which is not considered at time of determination of tariff, shall be deducted by the beneficiary in subsequent bills after receipt of such grant, subsidy or incentive in suitable instalments or within such period as may be stipulated by the Commission.

In case the Central or State Government or their agencies provide any generation-based incentive, which is specifically over and above the tariff, such incentive shall neither be taken into account while determining the tariff nor be deducted by the beneficiary in subsequent bills raised by the particular Renewable energy project.

#### 23. Statutory Charges

Tariff determined under these regulations shall be exclusive of taxes and duties as may be levied by the appropriate Government. Any tax / duty levied by the appropriate Government shall be governed by the terms of the PPA.

#### **Technology specific parameters for Wind Energy**

#### 24. Capital Cost. -

- (1) The capital cost for wind energy project shall include Wind turbine generator including its auxiliaries, site development charges and other civil works, transportation charges, evacuation cost up to inter-connection point, financing charges and IDC. Provided in case of land obtained on lease, cost of land shall be taken as per lease agreement.
- (2) Given the limited potential for setting up wind energy projects in Haryana, the Commission, on an application received from a prospective wind power generator / developer and willingness of the Disocoms / HPPC to purchase such power, shall determine capital cost for wind energy projects, O&M expenses and tariff based on the market trends prevailing during the relevant year w.r.t. scheduled CoD of such projects on case specific basis only.

# 25. Capacity Utilization Factor. -

(1) CUF norms for the control period shall be as follows:-

Annual	Mean	Wind	Power

Density (W/m2)	CUF
Up to 220	22%
221- 275	24%
276- 330	28%
331- 440	33%
441 +	35%

Provided that the number of hours for calculation of CUF shall be 8766 hours.

- (2) The annual mean wind power density specified above shall be measured at 100 meter hub-height.
- (3) For the purpose of classification of wind energy project into particular wind zone class, the State-wise wind power density map prepared by Centre for Wind Energy Technology (C-WET) / MNRE / NIWE, shall be considered.

Provided that the Commission may by notification amend the schedule from time to time, based on MNRE guidelines / NIWE for wind measurement or by the private developer.

Provided in the case of wind measurement data submitted by wind power developer the same shall be acceptable in case it is validated by NIWE.

# 26. **Operation and Maintenance expenses**

The Commission shall determine only project specific O&M expenses considering the prevailing market trends.

# Chapter – 5 Technology specific parameters for Small Hydro Project

## 27. Capital Cost. -

(1) The normative capital cost for small hydro/micro projects during the Control period beginning the FY 2026-27, shall be as under:-

Size of project Capital Cost (Rs. Crore / MW)
Below 5 MW 8.90
5 MW to 25 MW 10.27

Provided in the case of small / micro hydro power projects the Commission shall determine project specific tariff only and accordingly determine project specific capital cost as well as CUF, if required, based on case specific hydrological data. Provided that the Capital Cost as specified in these Regulations, shall be the ceiling norm while determining the project specific tariff.

- 28. Capacity Utilization Factor. Capacity Utilization Factor (CUF) for the small hydro projects shall be 56%. The normative CUF shall be net of free power to the State, if any, and any quantum of free power, over and above the free power notified by the Central Government, if committed by the developer by way of implementation agreement or otherwise, over and above the normative CUF, shall not be factored into the tariff. Provided further that the number of hours for calculation of CUF shall be 8766 hours.
- 29. **Auxiliary Energy Consumption. –** Normative Auxiliary Energy Consumption, including transformation losses, for the small / micro hydro projects shall be 1.0%.

#### 30. Operation and Maintenance Expenses. -

(1) Normative O&M expenses for the first year of the Control period (i.e. FY 2026-27) shall be as under:-

Project size O&M Expenses (Rs. Crore / MW)
Below 5 MW 0.385

5 MW to 25 MW 0.280

(2) Normative O&M expenses allowed under these Regulations shall be escalated at the rate of 3.45% per annum for the Tariff Period for the purpose of determination of tariff under these Regulations.

#### Chapter – 6

#### **Technology specific parameters for Biomass based Power Projects**

31. **Technology Aspect**. – The norms for tariff determination specified hereunder are for biomass power projects based on Rankine Cycle technology application using water cooled condenser and air-cooled condenser, with Travelling grate or AFBC boiler.

#### 32. Capital Cost. -

 The normative capital cost, during the control period under these Regulations, for the biomass power projects using fuel other than Rice Straw/Stubble shall be Rs.
 6.38 Crore / MW (Water Cooled Condenser) and Rs. 6.85 Crore / MW for projects using Air Cooled Condenser.

Provided for the project using Rice Straw / Stubble as single fuel for generation of power the Capital Cost, during the control period, shall be Rs. 6.97 Crore / MW (Water Cooled Condenser) and Rs. 7.44 Crore / MW for projects having air cooled condenser.

#### 33. Plant Load Factor. -

For the purpose of determination of tariff, the Plant Load Factor shall be considered as 80%.

- 34. **Auxiliary Energy Consumption.** The auxiliary energy consumption shall be 10% in the case of projects equipped with water cooled condenser and 12% for air cooled condenser, for the purpose of tariff determination.
- 35. **Station Heat Rate. –** The Station Heat Rate for biomass power projects, shall be as under:-

Travelling Grate	4200 kcal/kWh
AFBC Boiler	4125 kcal/kWh

#### 36. Operation and Maintenance Expenses. -

- (1) Normative O&M expenses for the first year of the Control period (i.e. FY 2026-27) shall be Rs. 54.17 Lacs /MW.
- (2) Normative O&M expenses allowed at the commencement of the Control Period (i.e. FY 2026-27) under these Regulations shall be escalated at the rate of 3.45% per annum.

#### 37. Fuel Mix. -

- (1) The biomass power plant shall be designed in such a way that it uses different types of non-fossil fuels available within the vicinity of biomass power project such as crop residues, agro-industrial residues, forest residues etc. and other biomass fuels as may be approved by MNRE, from time to time.
- (2) The Biomass Power Generating Companies shall have appropriate fuel management plan to ensure adequate availability of fuel to meet the respective project requirements.
- (3) Use of Fossil Fuel shall not be permitted. However, the biomass/non-fossil based cogeneration power plants shall endeavor to meet the maximum fuel requirement from Paddy Straw by all.
- (4) The Project developer shall furnish monthly fuel (biomass mix) usage statement and monthly fuel (biomass mix) procurement statement duly certified by Chartered Accountant to the beneficiary (with a copy to appropriate agency that may be appointed / designated by the Commission for the purpose of monitoring fuel consumption and usage) for each month, along with the monthly energy bill.
- (5) Non-compliance of the aforesaid condition of fossil fuel usage by the project developer, during any financial year, shall result in withdrawal of applicability of tariff as per these Regulations for such biomass based power project. In such cases the PPA(s) shall be terminated and the Discoms (beneficiaries) shall be under no obligation to make any payments for the power supplied by the seller in breach of the regulation on fuel usage.

Provided that the bagasse based co-generation projects, selling power to the Discoms under PPA approved by the Commission, shall be permitted to use biomass as fuel during the non-cane crushing season. In such cases the generators can approach the Commission for determination of tariff for the power generated using biomass as fuel. The HPPC shall not refuse purchase of such power without the prior approval of the Commission.

- 38. **Calorific Value**. The Calorific Value of the biomass fuel used for the purpose of determination of tariff shall be 3100 (kCal/kg).
- 39. **Fuel Cost.** Biomass fuel and Paddy Straw price for the FY 2025-26 has been determined at Rs. 4535/MT and Rs. 3582/MT, respectively. Accordingly, Biomass fuel and Paddy

Straw price during first year of the Control Period shall be Rs. 4692/MT Rs. 3706/MT, respectively and shall be escalated at the rate of 3.45% per annum for arriving at the levelized tariff for the entire useful life of the project.

Provided further, that the Commission, for biomass / bagasse-based power project, may consider two-part tariff wherein the fixed cost shall be the levelized tariff and the fuel cost shall be as determined on a year to year basis so that the fuel cost remains aligned to the prevailing market conditions.

Provided that to gainfully utilize and thereby prevent burning of paddy straw / stubble in the farms, the Commission would endeavor to promote use of the same in the power projects. HAREDA may provide the relevant data collected from the field on a half yearly basis for consideration of the Commission. However, the details of usage of paddy straw / stubble shall be certified by the IPPs and verified by HPPC based on the data emanating from the local authorities concerned.

Provided further, in case, the State Government procures paddy straw/stubble for onward distribution to the power projects, the fuel cost shall be accordingly adjusted.

Further, given the single fuel based generation for paddy straw / stubble based power projects in Haryana, working capital norms shall be accordingly determined.

#### Technology specific parameters for Non-fossil fuel based Cogeneration Projects

- 40. **Technology Aspect**. A project shall qualify as a non-fossil fuel based Co-generation project, if it is in accordance with the definition as specified under these Regulations.
- 41. **Capital Cost**. The normative capital cost for the non-fossil fuel based cogeneration projects shall be Rs. 5.62 Crores/MW during the control period.

#### 42. Plant Load Factor. -

- (1) For the purpose of determining fixed charge, the plant load factor for non-fossil fuel based cogeneration projects shall be computed on the basis of plant availability for number of operating days considering operations during crushing season and off-season.
- (2) The number of operating days shall be 150 days (crushing) + 60 days (off-season) = 210 days operating days and the Plant Load Factor shall be 53%.
- (3) Plant Load Factor for biomass based co-generation using fuel other than bagasse shall be 80%.
- 43. **Auxiliary Energy Consumption.** The auxiliary energy consumption factor shall be 8.5% for the purpose of tariff determination.
- 44. **Station Heat Rate.** –Station Heat Rate of 3600 kCal / kWh for power generation component shall be considered for computation of tariff for non-fossil fuel based Cogeneration projects.
- 45. **Calorific Value**. The Gross Calorific Value for Bagasse shall be considered as 2250 kCal/kg. Further, the Gross Calorific Value for Non Fossil Fuel based Cogeneration (other than Bagasse) shall be considered as 3100 kCal/kg.

#### 46. Fuel Cost. -

- (1) The price of Bagasse for the FY 2025-26 has been determined at Rs. 2547/MT. Accordingly, price of bagasse during first year of the Control Period shall be Rs. 2635/MT and shall be escalated at the rate of 3.45% per annum for determination of levellised tariff for the entire useful life of the project.
- (2) The price of other Non-Fossil Fuel for the FY 2025-26 shall be Rs. 4535/ MT. Accordingly, Biomass fuel price during first year of the Control Period shall be Rs.

4692/MT and shall be escalated at the rate of 3.45% per annum for arriving at the levelized tariff for the entire useful life of the project.

# 47. Operation and Maintenance Expenses. -

- (1) Normative O&M expenses during first year of the Control Period shall be Rs. 28.00 Lacs/ MW.
- (2) The normative O&M expenses allowed at the commencement of the Control Period i.e. the FY 2026-27 under these Regulations shall be escalated at the rate of 3.45% per annum.

#### Chapter – 8

#### Technology specific parameters for Solar PV Power Project

48. **Technology Aspects.** – Norms for Solar Photovoltaic (PV) power under these Regulations shall be applicable for grid connected PV systems that directly convert solar energy into electricity and are based on the technologies such as crystalline silicon or thin film etc. as may be approved by MNRE. The Commission shall not determine generic tariff under these Regulations and only project specific tariff, if required, shall be determined.

Provided that the Discoms / HAREDA may do reverse bidding with the lowest / last discovered tariff lowest of competitive bidding by HPPC/ HAREDA or SECI, as base tariff.

Provided that the norms including Capital Cost, CUF, Auxiliary Energy consumption, O&M expenses etc. and the tariff thereto for Solar Pv / Thermal / Rooftop / Canal top / Water works, as per the technology approved by the MNRE, shall be determined on project specific basis depending on the prevalent market trend only if required i.e. in case the competitive bidding route for any reason does not take effect. The broad guiding parameters shall be as under:-

49. **Capacity Utilization Factor**. – The Commission shall approve capacity utilization factor for project specific tariff determination.

Provided that the minimum capacity utilization factor for Solar PV project including floating solar project shall be 21% with AC: DC ratio of 1:1.

Provided that the minimum capacity utilization factor for Solar Thermal project shall be 23%.

Provided also that the minimum capacity utilization factor for floating solar projects shall be 19%.

- 50. Operation and Maintenance Expenses. -
  - (1) The O&M Expenses shall be determined based on prevalent market conditions.
  - (2) Normative O&M expenses allowed at the commencement of the Control Period under these Regulations shall be escalated at the rate of 3.45% per annum.
- 51. **Auxiliary Energy Consumption. –** The auxiliary energy consumption shall be 0.25% of the gross generation.

#### **Technology specific parameters for Biomass Gasifier based Power Project**

# 52. Technology Aspects. -

- (1) A process achieved by reacting biomass at a high temperatures without combustion / incomplete combustion, with a controlled amount of oxygen and/or steam resulting in production of combustible gases consisting of a mix of Carbon Monoxide (CO), Hydrogen (H2) and traces of Methane (CH4), which shall be called synthesis gas to be used as fuel. The projects shall qualify as biogas-based power project provided it is using new plant and machinery and having a grid connected system that uses 100% syngas engine with MNRE approved gasification technology and shall use non-fossil fuel as approved by MNRE.
- (2) The normative Capital Cost, without capital subsidy, shall be Rs. 6.77 Crore / MW for the entire control period unless reviewed by the Commission. However, for determination of tariff, the capital subsidy/grant/ Central Financial Assistance, if available, shall be deducted from the capital cost.
- (3) The threshold Plant Load Factor (PLF), including stabilisation period, for the purpose of determining levellised generic tariff under these Regulations shall be 85%.
- (4) The Auxiliary Energy Consumption (AUXe), for the purpose of determination of levellised generic tariff under these Regulations, shall be 10%.
- (5) The Normative Specific Fuel consumption shall be 1.25 Kg./kWh.
- (6) The Normative Operation and Maintenance (O&M) expenses shall be Rs. 71.54 Lakhs / MW for the base year i.e. the FY 2026-27, the same shall be subject to an escalation factor @ 3.45% per annum form second year onwards.
- (7) The price of biomass fuel cost for the FY 2025-26 has been determined at Rs. 4535/MT. Accordingly, price of Biomass during first year of the Control Period shall be Rs. 4692/MT and shall be escalated at the rate of 3.45% per annum for the purpose of arriving at generic levelized tariff for the entire useful life of the project.

# Chapter – 10 Technology specific parameters for Biogas Power Project

# 53. Biogas based power projects. -

- (1) A technology for generation of power using a mixture of different gases produced by the breakdown of organic matter (anaerobic digestion with anaerobic organisms in the absence of oxygen / fermentation of biodegradable materials) i.e. produced from raw materials such as agricultural waste, manure, poultry droppings, cow dung, municipal waste, plant material, sewage, green waste or food waste. The projects shall qualify as biogas-based power project provided it is using new plant and machinery and having a grid connected system that and uses 100% biogas fired engine with MNRE approved technology.
- (2) The normative Capital Cost, for the entire control period beginning the FY 2026-27 shall be Rs. 13.52 Crore/MW (after accounting for capital subsidy -Rs. 10.52 Crore / MW) unless reviewed earlier by the Commission.
- (3) The threshold Plant Load Factor (PLF), including stabilisation period, for determining levellised generic tariff under these Regulations shall be 90%.
- (4) The Auxiliary Energy Consumption (AUXe), for the purpose of determination of levellised generic tariff under these Regulations, shall be 12%.
- (5) The Normative Fuel consumption shall be 3.0 Kg / kWh of substrate mix.
- (6) The Normative Operation and Maintenance (O&M) expenses shall be Rs. 73.05 Lakh/ MW for the base year i.e. the FY 2026-27, the same shall be subject to an escalation factor @ 3.45% per annum form second year onwards for determining levellised tariff for the entire useful life of the project.
- (7) Specific Fuel Consumption: Normative specific fuel consumption shall be 3 kg of substrate mix per kWh.
- (8) The price of biogas fuel cost (Feed Stock Price) for the FY 2025-26 shall be Rs. 751/MT. Accordingly, price of biogas during first year of the Control Period shall be Rs. 777/MT and the same shall be escalated @ 3.45% per annum for the purpose of arriving at levellised tariff for the entire useful life of the project. Provided the cost recovery from digester effluent shall be set off against the Fuel Cost (feed stock price) while determining generic levellised tariff.

#### Parameters for refuse derived fuel based Municipal Solid Waste (MSW) Power Projects

- 54. Parameters for refuse derived fuel (RDF) based Municipal Solid Waste (MSW) Power Projects, shall be as under:-
  - (1) Capital Cost. The normative capital costs during the entire control period under these Regulations, unless reviewed earlier by the Commission, for RDF based MSW power project shall be Rs. 22 Crore / MW.
  - (2) Plant Load Factor (PLF).
    - (1) Threshold Plant Load Factor for determining fixed charge component of tariff for RDF based the municipal solid waste projects shall be as under:
      - a) During Stabilisation 65%
      - b) During the remaining period of the first year (after stabilization) 65%
      - c) From 2nd Year onwards 80%.
    - (2) The stabilization period shall not be more than 6 months from the date of commissioning of the project.
  - (3) Auxiliary Energy Consumption (AUXe) The auxiliary power consumption for the Waste to energy power projects using municipal solid waste shall be 15%.
  - (4) Operation and Maintenance Expenses (O&M) The Normative O&M expenses for the first year of the control period shall be 6.50% of the capital cost of RDF based MSW power projects. The same shall be escalated @ 3.45% per annum to arrive at the levellised tariff for the entire useful life of the project.
  - (5) **Fuel Cost:** No Fuel Cost shall be considered for the determination of tariffs for RDF power projects.

Provided that for the purpose of start-up and shut down activity and temperature stabilisation during monsoon, alternate fuel from any other renewable energy source up to a ceiling of 5% of RDF consumed annually, shall be allowed without any additional impact on tariff.

#### **Technology specific parameters for Renewable Hybrid Energy Projects**

#### 55. Capital Cost

The capital cost shall be determined on project specific basis considering the prevailing market trends.

#### 56. Capacity Utilisation Factor

The Commission shall determine only project specific capacity utilisation factor in respect of renewable hybrid energy projects taking into consideration the proportion of rated capacity of each renewable energy source, as the case may be and applicable capacity utilisation factor for such renewable energy source, as the case may be: Provided that the minimum capacity utilization factor for renewable hybrid energy project shall be 30% when measured at the inter-connection point, where the energy is injected into the grid.

### 57. Operation and Maintenance expenses

The Commission shall determine only project specific O&M expenses considering the prevailing market trends.

#### 58. Tariff

The tariff for a renewable hybrid energy project shall be a composite levelised tariff for the project as a whole by factoring in the tariff components upto the minimum of the useful life of the RE technologies combined for such RE hybrid Project:

Provided that, in case any of the RE technologies combined for RE hybrid project is left with further useful life, the levelised tariff for remaining useful life of such RE technology shall be determined separately, by factoring in the tariff components for the remaining useful life.

#### Technology specific parameters for Renewable Energy with storage project

#### 59. Capital Cost

The capital cost shall be determined on project specific basis considering the prevailing market trends.

#### 60. Storage Efficiency

(1) The Commission shall approve the storage efficiency only for project specific tariff:

Provided that the minimum efficiency for storage based on technology of solid state batteries shall be 80%:

Provided further that the minimum efficiency for storage based on technology of pumped storage shall be 75%:

(2) Efficiency of storage component of renewable energy with storage project shall be measured as ratio of output energy received from storage and input energy supplied to the storage component of such project, on annual basis.

#### 61. Operation and Maintenance expenses

The Commission shall determine only project specific O&M expenses considering the prevailing market trends.

#### 62. Tariff determination for Energy Storage

The tariff for renewable energy with storage project shall be a composite tariff or differential tariff based on time of day, determined for energy supplied from the Project including the energy supplied from the storage facility:

Provided that such tariff may be determined for supply of power on round the clock basis or for time periods as agreed by Project Developer and Beneficiary.

# Renewable Purchase / Consumption / Generation obligation (RPO/RCO/RGO) and Renewable Energy Certificate (REC)

#### 63. Renewable Purchase / Consumption / Generation obligation. –

The Renewable Purchase / Consumption / Generation obligations, as may be notified by the Ministry of Power from time to time, shall be complied by the obligated entities, w.e.f. the FY 2026-27. However, obligated entities may exercise the option to comply with either the HERC trajectory specified in the HERC RE Regulations, 2021 (2nd Amendment), 2022 or the MoP trajectory, for the FY 2025-26.

#### 64. Certificates under the Regulations of the Central Commission. –

- (1) Subject to the terms and conditions contained in these regulations the Certificates issued under the Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2022, as amended from time to time, shall be the valid instruments for the discharge of the mandatory obligations set out in these regulations for the obligated entities to purchase electricity from renewable energy sources.
- (2) Subject to such direction as the Commission may give from time to time, the obligated entity shall act in consistent with the Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2022 notified by the Central Commission and as amended from time to time in regard to the procurement of the certificates for fulfillment of the Renewable Purchase Obligation under these regulations.
- (3) The Certificates purchased by the obligated entities from the power exchange in terms of the regulation of the Central Commission mentioned in sub regulation (1) of this Regulation shall be deposited by the obligated entities to the Commission in accordance with the detailed procedure issued by the Central Agency.

The Obligated Entities including the Power Utilities in Haryana under these Regulations may meet its RPO target by way of own generation or procurement of power from RE developer or by way of purchase from other licensee or by way of purchase of Renewable Energy Certificate or by way of combination of any of the above options. However, RE

power generated in States other than in the State of Captive Generator, by an obligated entity shall not qualify for fulfilment of RPO in Haryana.

#### 65. State Agency. –

- (1) The Commission designates New and Renewable Energy, Haryana (HAREDA) as the State Agency for accreditation and recommending the renewable energy projects for registration and to undertake functions under these regulations.
- (2) HAREDA shall endeavour to promote better and efficient usage of biomass disposal such as setting up of Compressed Bio Gas (CBG), ethanol, bio fuel etc, so as incineration of biomass/bio waste/municipal waste, even under controlled environment for electricity generation, can be minimized.
- (3) The State Agency shall function in accordance with the directions issued by the Commission and shall act in consistent with the procedures rules laid by Central Agency for discharge of its functions under the Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2022 as amended from time to time.
- (4) The State Agency shall submit quarterly status to the Commission in respect of compliance of renewable purchase obligation by the obligated entities in the format as stipulated by the Commission/Ministry of Power and shall suggest appropriate action to the Commission if required for compliance of the renewable purchase obligation.
- (5) If the Commission is satisfied that the State Agency is not able to discharge its functions satisfactorily, it may by general or special order, and by recording reasons in writing, may impose such penalty as it considers appropriate.

#### 66. Effect of default. –

(1) If the obligated entities do not fulfill the renewable purchase obligation as provided in these regulations during any year and also does not purchase the certificates, the Commission may direct the obligated entity to deposit into a separate fund, to be created and maintained by such obligated entity, such amount as the Commission may determine on the basis of the shortfall in the RPO determined under these regulations from time to time at the forbearance price notified by the Central Commission.

Provided that the fund so created shall be utilized, as may be directed by the Commission, for purchase of the renewable energy certificates.

Provided further that the Commission may empower an officer of the State Agency to procure from the Power Exchange the required number of certificates to the extent of the shortfall in the fulfillment of the obligations, out of the amount in the fund.

Provided also that the distribution licensee shall be in breach of its license condition if it fails to deposit the amount directed by the Commission within 30 days of the communication of the direction or within such period as directed by the Commission.

(2) Where any obligated entity fails to comply with the obligation to purchase the required percentage of power from renewable energy sources or the renewable energy certificates, it shall also be liable for penalty as may be decided by the Commission under section 142 of the Act.

Provided that in case of genuine difficulty in complying with the renewable purchase obligation because of limited availability of renewable energy or non-availability of certificates, the obligated entity can approach the Commission for relaxation or carry forward of compliance requirement to the next year. However, in normal circumstances, the renewable purchase obligation shall not be waived of.

Provided further that where the Commission has consented in writing on an application made by the obligated entity to carry forward of compliance requirement, the provision of regulation 57 (1) of these Regulation or the provision of section 142 of the Act shall not be invoked.

- (3) Where any obligated entity being an Open Access Consumer, fails to comply with the obligation to purchase the required percentage of power from renewable energy sources or the renewable energy certificates, on or before 30<sup>th</sup> April next following the relevant Financial Year, in addition to the consequences mentioned in sub clause 1 & 2 above, Open Access shall not be granted to such consumers w.e.f. 01<sup>st</sup> May, till the time such Open Access Consumer fulfills RPO obligations. Such obligated Open Access Consumers, shall have to submit the proof of compliance of RPO to DISCOMs.
- 67. **Cost of Evacuation System.** The State transmission utility or the Transmission/Distribution Licensee shall bear the cost of Extra High Voltage (EHV)/ High **37** of 49

Voltage (HV) transmission line up to a distance of 10 km. from the inter-connection point. In case the distance between the inter connection, point and point of grid connectivity is more than 10 KMs then the cost of transmission line for the distance beyond the 10 KMs shall be borne equally between the Independent Power Producer and the licensee. However, for canal based solar power projects, the transmission lines shall be provided by the utilities, free of cost, irrespective of the distance of the project from the substation, subject to the conditions that the solar power is generated and utilized within the state of Haryana and is counted towards RPO of the Distribution Licensee (s). Transmission/Distribution Licensee shall bear the cost of Extra High Voltage (EHV)/ High Voltage (HV) transmission line up to a distance of 10 km and shared cost after 10KM, only in the case where the power is to be supplied to DISCOMs under approved PPA. RE Power producers installed by Independent Power Producers (IPP) for merchant sale or captive consumption, should bear the cost themselves. It is further clarified that the terms & conditions for cost of evacuation of power in respect of PPA entered into by DISCOMs/HPPC with RE Power Producers under competitive bidding, shall be governed by the terms of such PPA.

The cost of any augmentation required beyond the interconnection point in the grid system of the Transmission/Distribution Licensee (s) shall also be borne by the Transmission/Distribution Licensee concerned. Further, the power utilities concerned, on being informed about the Scheduled Commissioning Date (SCOD), shall complete the evacuation system well in time.

68. **Discount Factor.** – The discount factor for working out levelised generic tariff shall be the weighted average cost of capital (WACC).

#### Chapter – 15 Miscellaneous

69. **Deviation from norms**. – Tariff for sale of electricity generated from a generating station based on renewable energy sources, may also be agreed between the generating company and beneficiary, in deviation from the norms specified in these regulations.

Provided that the levelized tariff of the project calculated on the basis of the norms, specified in these regulations shall be the ceiling levelized tariff.

- 70. **Power to Relax.** The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected may suo moto relax any of the provisions of these regulations or on an application made before it by an interested person.
- 71. **Issue of orders or directions**. Subject to the provisions of the Act and these regulations, the Commission may, from time to time, issue orders and procedural directions with regard to the implementation of these regulations and specify the procedure to be followed on various matters, which the Commission has been empowered by the regulations to direct and matters incidental thereto.
- 72. **Power to amend**. The Commission may, at any time, add, vary, modify or amend any of the provisions of these regulations.
- 73. **Power to remove difficulties.** If any difficulty arises in giving effect to any of the provisions of these regulations, the Commission may, by general or special order, make such provisions, which in the opinion of the Commission are necessary or expedient to do so.
- 74. Savings. Nothing in these Regulations shall limit the inherent power of the Commission to make such orders as may be necessary to meet the ends of justice or to prevent abuses of the process of law / statutes. Nothing in these Regulations shall bar the Commission from adopting, any other procedure, which may be at variance with any of the provisions of these Regulations, as long as they are in conformity with the provisions of the Electricity Act, 2003 and the policies framed by the Central / State Government thereto.

Provided that the reasons for any such deviating shall be recorded in writing.

Provided also that nothing in these regulations shall, expressly or implicitly, bar the Commission from dealing with any matter under these Regulations or exercising any power under the Act for which no regulations have been framed.

Date: \_\_.10.2025 Place: Panchkula (Shiv Kumar) Member (Mukesh Garg) Member (Nand Lal Sharma) Chairman

#### APPENDIX

Form-1.1: Template for (Wind power projects/ Small hydro projects/ Solar PV power projects/ Solar thermal power projects/ Renewable energy hybrid power projects /Renewable energy with storage projects/MSW/RDF)

SI.	Assumption	Sub-head	/ with storage projects/MSW/R Sub-head (2)	Unit	Parameter
No.	Head		-		
1	Power	Capacity	Installed Power Generation	MW	
-	Generation		Capacity		
			Capacity Utilization Factor	%	
			(CUF)		
			Auxiliary Consumption	%	
			Commercial Operation Date	dd/mm/yyyy	
			(COD)		
			Useful Life	Years	
2	Project Cost	Capital Cost	Normative Capital Cost	Rs. Crore/	
	,	'	·	MW	
			Capital Cost	Rs. Crore	
			Capital Subsidy, if any	Rs. Crore	
			Net Capital Cost	Rs. Crore	
3	Financial	Debt Equity	Tariff Period	Years	
	Assumption	, ,	Debt	%	
			Equity	%	
		Debt Component	Total debt amount	Rs. Crore	
		·	Total equity amount	Rs. Crore	
			Loan Amount	Rs. Crore	
			Moratorium Period	Years	
			Repayment Period (incl	Years	
			moratorium)		
			Interest Rate	%	
		<b>Equity Component</b>	Equity Amount	Rs. Crore	
			Return on Equity for First 20	% p.a.	
			years		
			Return on Equity after 20 years	% p.a.	
			Discount Rate	%	
		Depreciation	Dep Rate for 1st 15 years	%	
			Dep rate 16th year onwards	%	
		Incentives	GBI, if any	Rs. Crore	
			Period for GBI	Years	
4	O& M Expenses	Normative O&M		Rs.	
	·	Expense		Lakh/MW	
		O&M Expenses		Rs. Crore	
		p.a.			
		Escalation Factor		%	
5	Working Capital	O&M Expenses		Month	
		Maintenance	% of O&M Expenses	%	
		Spares			
		Receivables		Days	
		Interest on		% per	
		Woking Capital		annum	

Form-1.2: Template for (Biomass)

			n-1.2: Template for (Biomass)		
SI. No.	Assumption Head	Sub-head	Sub-head (2)	Unit	Parameter
			Installed Power Generation	MW	
			Capacity		
			Aux Consumption	%	
	Power	Capacity	PLF (1st year)	%	
	Generation		PLF (2nd year onwards)	%	
			Commercial Operation Date	dd/mm/yyyy	
			Useful Life	Years	
			Normative Capital Cost	Rs. Crore /MW	,
		Capital Cost/MW	Capital Cost	Rs. Crore	
	Project Cost		Capital Subsidy, if any	Rs. Crore	
	'		Net Capital Cost	Rs. Crore	
			Tariff Period	Years	
		Debt Equity	Debt	%	
		Dobt Equity	Equity	%	
			Total debt amount	Rs. Crore	
			Total equity amount	Rs. Crore	<del> </del>
			Loan Amount	Rs. Crore	
		Debt Component	Moratorium Period	Years	+
		Book component	Repayment Period (including	Years	
			moratorium)	Tears	
			Interest Rate	%	
3	Financial		11 11 11 11 11 11 11 11 11 11 11 11 11	Rs. Crore	
	Assumption		Equity Amount		
	•	Equity Component	Return on Equity for First 20	% p.a.	
		Equity Component	years	0/ n o	
			Return on Equity after 20 years	% p. a.	
		Danas siation	Discount Rate	%	
		Depreciation	Dep Rate for 1st 15 years	<u>%</u> %	
		1 (*	Dep rate 16th year onwards		
		Incentives	GBI, if any	Rs. Crore	
			Period for GBI	Years	
		Normative O&M		D - 1 -1-1-/NANA/	
		Expenses		Rs. Lakh/MW	
		O&M Expenses p.a.		Rs. Crore	
	O&M Expenses			%	
		Factor		N 4 = 41=	
		O&M		Month	
	Working Capital	Expenses Maintanana	% of O&M Expenses	%	
	• .	Spares	% of Oalvi Expenses	70	
		Receivables		Dave	
		Interest on WC		Days %	
1	Fuel Related	Station Heat Rate	During 1st year	kcal/kWh	
		Station neat Rate	During 1st year	kcal/kWh	
	assumptions	Fuel Ture a seed rein	2nd year onwards		
		Fuel Type and mix	Biomass Fuel Type-1	%	
			Biomass Fuel Type-2	%	
			Fossil Fuel (Coal)	%	
			GCV of Biomass Fuel Type-1	kcal/kWh	
			GCV of Biomass Fuel Type-2	kcal/kWh	
			GCV of Fossil Fuel (Coal)	kcal/kWh	
			Biomass Price (Fuel Type-1)/ Yr 1	Rs./MT	
			Biomass Price (Fuel Type-2)/ Yr 1	Rs./MT	<u> </u>
			Fossil Fuel (Coal) Price)/ Yr 1	Rs./MT	<u> </u>
			Fuel Price Escalation Factor	% p.a.	

Form-2.1: Template for (Wind power projects or Solar PV power projects /Solarthermal power projects/ MSW/ RDF): Determination of Tariff Components

					SVV/ K					of Tar						
Units Generation	Unit	Y	r-1	Yr-2		Yr-	3 Y	r-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-1	0 Yr-1	11 Yr- 12
Installed	MW															
Capacity																
	MU															
Generation																
Units	Unit	١	Yr-13	Yr-14	Yr-1	5 Yr-	16 Yı	-17	Yr-18	Yr-19	Yr-20	Yr-21	Yr-22	Yr-23	Yr-24	Yr-25
Generation																
Installed Capacity	MW															
Net	MU															
Generation																
Tariff		Unit	ŀ	Yr-1	Yr-2	Yr-3	Yr-	1	∕r-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	V= 11	Vr 12
Component (Fixed char		Omi		11-1	11-2	11-3	11.	'4  1	11-5	11-0	11-7	11-0	11-9	11-10	11-11	11-12
O&M Expen		Rs L	.akh													
Depreciation	1	Rs L	.akh													
Interest on t	erm	Rs L	akh													
loan																
Interest on		Rs L	akh													
working																
Capital																
Return on E		Rs L														
Total Fixed	Cost	Rs L	akh													
Tariff	Unit	t	Yr-13	3 Yr-1	4 Yr-1	5 Yr	-16 Y	r-17	Yr-18	Yr-19	Yr-20	Yr-21	Yr-22	Yr-23	Yr-24	Yr-25
Component	ts															
(Fixed																
charge)																
O&M	Rs L	_akh														
Expenses																
Depreciation																
Interest on	Rs L	_akh														
term loan	Rs L	olch							-	1			-			
Interest on working	KS L	_akii														
Capital																
Return on	Rs L	akh			+					1						
Equity																
Total Fixed	Rs L	akh														
Cost																1

Per Unit Tariff	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
components													
PU O&M	Rs/kWh												
expenses													
PU Depreciation	Rs/kWh												
PU Interest on	Rs/kWh												
term													

loan							
PU Interest on working capital	Rs/kWh						
PU Return on	Rs/kWh						
Equity							
PU Tariff	Rs/kWh						
Components							

	Unit	Yr-13	Yr-14	Yr-15	Yr-16	Yr-17	Yr-18	Yr-19	Yr-20	Yr-21	Yr-22	Yr-23	Yr-24	Yr-25
components														
PU O&M	Rs/kWh													
expenses														
PU Depreciation	Rs/kWh													
PU Interest on	Rs/kWh													
term														
loan														
PU Interest on	Rs/kWh													
working														
capital														
PU Return on	Rs/kWh													
Equity														
PU Tariff	Rs/kWh													
Components														

Levelized Tariff	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
Discount Factors													
Discounted Tariff	Rs/kWh												
components													
Levelized Tariff	Rs/kWh												

Levelized Tariff	Unit	Yr-13	Yr-14	Yr-15	Yr-16	Yr-17	Yr-18	Yr-19	Yr-20	Yr-21	Yr-22	Yr-23	Yr-24	Yr-25
Discount Factors														
Discounted Tariff	Rs/kWh													
components														
Levelized Tariff	Rs/kWh													

Form-2.2: Template for (Biomass power projects or non-fossil fuel based co-generation plants):

Determination of Tariff Components

Units Generation	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
Installed Capacity	MW												
Net Generation	MU												

Units Generation	Unit	Yr- 13	Yr- 14	Yr- 15	Yr- 16	Yr- 17	Yr- 18	Yr- 19	Yr- 20	Yr- 21	Yr- 22	Yr- 23	Yr- 24	Yr- 25
Installed Capacity	MW													
Net Generation	MU													

Tariff Components (Fixed charge)	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
O&M Expenses	Rs Lakh												
Depreciation	Rs Lakh												
Interest on term loan	Rs Lakh												
Interest on working Capital	Rs Lakh												
Return on Equity	Rs Lakh												
Total Fixed Cost	Rs Lakh												

Tariff Components (Fixed charge)	Unit	Yr- 13	Yr- 14	Yr- 15	Yr- 16	Yr- 17	Yr- 18	Yr- 19	Yr- 20	Yr- 21	Yr- 22	Yr- 23	Yr- 24	Yr- 25
O&M Expenses	Rs Lakh													
Depreciation	Rs Lakh													
Interest on term loan	Rs Lakh													
Interest on working Capital	Rs Lakh													
Return on Equity	Rs Lakh													
Total Fixed Cost	Rs Lakh													

Tariff Components	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
(Variable Charge)													
Biomass Fuel Type-1	Rs Lakh												
Biomass Fuel Type-2	Rs Lakh												
Fossil Fuel (coal)	Rs Lakh												
Municipal Solid Waste	Rs Lakh												
Refuse Derived Fuel	Rs Lakh												
Sub-total (Fuel Costs)	Rs Lakh												
Fuel cost allocable to	%												
power													
Total Fuel Costs	Rs Lakh												

Tariff Components	Unit	Yr-												
(Variable Charge)		13	14	15	16	17	18	19	20	21	22	23	24	25

Biomass Fuel Type-1	Rs Lakh							
Biomass Fuel Type-2	Rs Lakh							
Fossil Fuel (coal)	Rs Lakh							
Municipal Solid Waste	Rs Lakh							
Refuse Derived Fuel	Rs Lakh							
Sub-total (Fuel Costs)	Rs Lakh							
Fuel cost allocable to	%							
power								
Total Fuel Costs	Rs Lakh							

Per Unit Tariff	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
components													
(Fixed)													
PU O&M expenses	Rs/kWh												
PU Depreciation	Rs/kWh												
PU Interest on term loan	Rs/kWh												
PU Interest on working	Rs/kWh												
capital													
PU Return on Equity	Rs/kWh												
PU Tariff Components	Rs/kWh												
(Fixed)													
PU Tariff Components	Rs/kWh												
(Variable)													
PU Tariff Components	Rs/kWh												
(Total)													

Per Unit Tariff components(Fixed)		Yr- 13	Yr- 14	Yr- 15	Yr- 16	Yr- 17	Yr- 18	Yr- 19	Yr- 20	Yr- 21	 Yr- 23	Yr- 25
PU O&M expenses	Rs/kWh											
PU Depreciation	Rs/kWh											
PU Interest on term	Rs/kWh											
loan												
PU Interest on working	Rs/kWh											
capital												
PU Return on Equity	Rs/kWh											
PU Tariff Components	Rs/kWh											
(Fixed)												
PU Tariff Components	Rs/kWh											
(Variable)												
PU Tariff Components	Rs/kWh											
(Total)												

Levelized Tariff	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12
Discount Factors													
Discounted Tariff	Rs/kWh												
components													
(Fixed)													
Discounted Tariff	Rs/kWh												
components (Variable)													
Discounted Tariff	Rs/kWh												
components(Total)													
Levelized Tariff (Fixed)	Rs/kWh												
Levelized Tariff	Rs/kWh												

(Variable)							
Levelized Tariff (Total)	Rs/kWh						

Levelized Tariff	Unit	Yr-												
		13	14	15	16	17	18	19	20	21	22	23	24	25
Discount Factors														
Discounted Tariff	Rs/kWh													
components														
(Fixed)														
Discounted Tariff	Rs/kWh													
components														
(Variable)														
Discounted Tariff	Rs/kWh													
components (Total)														
Levelized Tariff	Rs/kWh													
(Fixed)														
Levelized Tariff	Rs/kWh													
(Variable)														
Levelized Tariff	Rs/kWh													
(Total)														

Form-2.3: Template for (Small Hydro projects): Determination of TariffComponents

11	1 1 *4	V 4	N- 0	V- 0	N/ 4	N. 5	·	0 M	-	h/ 0	\/ O	N/		h7	V
	Unit	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-	6 Yr	-/	Yr-8	Yr-9		Yr-	Yr-	Yr-
Generation	B 43 A 7											10	11	12	13
	MW														
Capacity	N / I I	-			-							+	-		
Net Generation	MU														
Units	Unit	V- 1	4 V= 4	1 E V = 1	c V-	47 V	- 10	V= 40	V= 20	Yr-21 \	/* 22 h	/ <sub>*</sub> 22	V= 24	V= 2E	V- 26
Units Generation	Unit	Yr-1	4  Y r-1	15 Yr-1	6 11.	·17 YI	r-18	Y r-19	Y r-20	Y r-21   Y	r-22	Y r-23	Yr-24	Y r-25	¥ r-26
Installed	MW														
Capacity	IVIVV														
Net Generation	MU														
ivet Generation	IVIO														
Units	Unit	Yr-27	Yr-28	Yr-29	Yr-	Yr-3	1Yr-	Yr	-33 Yr-	Yr-3!	5Yr-36	6Yr-	Yr-38	3Yr-	Yr-
Generation					30		32		34			37		39	40
Installed	MW														
Capacity															
Net Generation	MU														
Tariff	Unit	Yr-	1 Yr	-2 Yr-	.3 Y⊦	r-4 Y	′r-5	Yr-6	Yr-7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12	Yr-13
Components															
(Fixed charge)															
O&M Expenses	Rs La														
Depreciation	Rs La														
Interest on term	Rs La	kh													
loan	Dala	1.1.		-											
Interest on	Rs La	ĸn													
working Capital															
Return on Equity	/Pcla	kh		+											
Total Fixed Cost															
Total Lixed Cost	i jis La	INII													
Tariff	Unit	Yr-	14 Yr	-15 Yr-	16 Y	r-17 Y	/r-18	Yr-1	9 Yr-20	) Yr-21	Yr-22	Yr-23	Yr-24	Yr-25	Yr-26
Components									۱ <u>-</u> ۱	1					0
(Fixed charge)															
O&M Expenses	Rs La	kh													
Depreciation	Rs La	kh													
Interest on term	Rs La	kh													
loan															
Interest on	Rs La	kh													
working															
Capital															
Return on Equity															
Total Fixed Cost	t Rs La	kh								1					
T - ::	11	\/- C	<b>7</b> \/. ^	01/ 61	n h/-		h.,	k.e		h,	h/	\/	V	V	Va
	Unit	Yr-2	/ Yr-2	8Yr-29		Yr- 31	Yr 32				Yr-	Yr- 37	Yr- 38	Yr- 39	Yr- 40
Components (Fixed charge)					30	31	32	3.	54	33	36	37	30	39	40
O&M Expenses	Rc														
Dain Exheuses	rs Lakh														
Depreciation	Rs		+				-	+				+		+	$\vdash$
Depreciation	Lakh														
Interest on term			+				-	-				+		+	
loan	Lakh														
Interest on	Rs						1					1		1	
working	Lakh														
Capital															
Return on	Rs		İ												
Equity	Lakh													$\perp$	
					-		_								

Total Fixed	Rs																
Cost	Lakh																
			1												<u> </u>		
Per Unit Tariff	Unit	Yr-1	Yr-2	Yr-3	Yr	-4	Yr-5	Yr	·-6	Yr-	-7 \	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12	Yr-13
components						•											•
PU O&M	Rs/kWh	1															
expenses		•															
PU Depreciation	Rs/k\//h	,															
PU Interest on	Rs/kWh																
termloan	13/13/13	'															
PU Interest on	Rs/kWh																
	K5/KVVI	'															
workingcapital	D = /L\A/I-																
PU Return on	Rs/kWh	1															
Equity	D // 1.14/1	-															
PU Tariff	Rs/kWh	)															
Components																	
															1	•	
Per Unit Tariff	Unit	Yr-1	4 Yr-1	5 Yr-1	6 Yr	-17	Yr-1	8 Yr	·-19	Yr-	-20	Yr-21	Yr-22	Yr-23	Yr-24	Yr-25	Yr-26
components																	
PU O&M	Rs/kWh	ı															
expenses																	
PU Depreciation	Rs/kWh	١															
PU Interest on	Rs/kWh																
term	1 (0) (() ()	`															
loan																	
PU Interest on	Rs/kWh	,															
working	13/13/13	'															
capital																	
PU Return on	Rs/kWh				-			-									
	KS/KVVI	1															
Equity	D - /L \ A / L							-									
PU Tariff	Rs/kWh	וו															
Components																	
D 11-'4 T'44	li i • 4	V- 07		/-: OO	h.z	\/	h.		\/		· /	h/	h/	N/	h/	h/	h/
	Unit	Yr-27		/r-29		Yr.			Yr-		Yr-	Yr-	Yr-	Yr-	Yr-		Yr-
components	D // \ \ / \		28		30	31	32	<u> </u>	33		34	35	36	37	38	39	40
	Rs/kWh																
expenses																	
	Rs/kWh																
Depreciation																	
	Rs/kWh																
term loan																	
PU Interest on	Rs/kWh																
workingcapital																	
PU Return on	Rs/kWh																
Equity																	
	Rs/kWh																
Components																	
	]				I										1	_1	1
Levelized Tariff	Unit	Yr-1	Yr-2	Yr-3	Yr	-4	Yr-5	Yr	-6	Yr-	7	Yr-8	Yr-9	Yr-10	Yr-11	Yr-12	Yr-13
Discount Factors	_	1				•		+		•	-	•		11 10			
Discounted Tarif																	
	1113/1011	1															
components	D = /I-\ \ / I-																
Levelized Tariff	Rs/kWh	1															
		h	4 6 7 4	<b>-</b> b <i>r</i>	- hr		h	-   -					hr	- hr - a-	hr -		
Levelized Tariff	Unit	Yr-1	4  Yr-1	5 Yr-1	6 Y	r-17	Yr-1	8 Yı	r-19	Yr	-20	Yr-21	Yr-22	2 Yr-23	Yr-24	₽Yr-25	
																	26
Discount Factors																	
Discounted Tarif	ff Rs/kWh	۱															
components		$\perp$		$\perp$						$\perp$							
Levelized Tariff	Rs/kWh	1															
			_	_		_	_	_	_	_			_		_		

	Unit	Yr-27		Yr-29						Yr-	Yr-	Yr-			Yr-
Tariff			28		30	31	32	33	34	35	36	37	38	39	40
Discount															
Factors															
Discounted	Rs/kWh														
Tariff															
components															
Levelized Tariff	Rs/kWh														

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

#### Notification

**Regulation No. HERC/53/2021/3rd Amendment/2025**: - 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, after previous publication, makes the following regulations: -

- 1. Short title, commencement, extent of application and interpretation.\_
  - (1) These Regulations may be called the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2021, (3rd Amendment) 2025.
  - (2) These regulations shall come into force w.e.f. 01.04.2025.
  - (3) These regulations shall extend to all grid connected renewable energy projects and obligated entities in the State of Haryana.

#### 4. Amendment of Regulation 4

First para of Regulation 4 shall be amended as under: -

Control Period or Review Period. – The Control Period for the purpose of tariff determination under these Regulations shall be from the FY 2021-22 to the FY 2025-26. However, the fuel cost and O&M expenses for the FY 2025-26 shall be arrived at by escalating the respective cost for the FY 2024-25 by an escalation factor of 3.45% p.a. Similarly, the capital cost for the FY 2025-26 shall be arrived at by escalating the respective cost for the control period from FY 2021-22 to FY 2024-25, by an escalation factor of 3.45% p.a.

Date: \_\_.10.2025 (Shiv Kumar) (Mukesh Garg) (Nand Lal Sharma)
Place: Panchkula Member Member Chairman

# Annexure C

FY 2025-26	Fuel Cost	Tariff (Fuel Cost)	Tariff (Levelized Fixed Cost)	Total Tariff for the FY 2025-26	Levelized (Useful Life)
RE Technology	(Rs./MT)	INR/kWh	INR/kWh	INR/ kWh	Indicative INR / kWh
Biomass (Air Cooled - TG, 100% Paddy Straw)	3,582	5.52	3.09	8.61	9.98
Biomass (Air Cooled - AFBC, 100% Paddy Straw)	3,582	5.42	3.09	8.50	9.84
Biomass (Water Cooled - TG, 100% Paddy Straw)	3,582	5.39	2.93	8.33	9.66
Biomass (Water Cooled - AFBC, 100% Paddy Straw)	3,582	5.30	2.92	8.22	9.53
Biomass (Air Cooled - TG, Biomass)	4,535	6.86	2.94	9.80	11.50
Biomass (Air Cooled - AFBC, Biomass)	4,535	6.75	2.94	9.69	11.36
Biomass (Water Cooled - TG, Biomass)	4,535	6.71	2.79	9.49	11.15
Biomass (Water Cooled - AFBC, Biomass)	4,535	6.60	2.78	9.38	11.02
Bagasse Co-generation (Sugar Mills)	2,547	4.45	2.76	7.21	8.32
Biomass / Non-Bagasse Cogeneration	4,535	5.76	2.02	7.78	9.20
Biomass Based Gasifier	4,535	6.30	2.71	9.01	10.56
Biogas	751	2.56	3.29	5.85	6.48

# Annexure D

FY 2026-27	Fuel Cost	Tariff (Fuel Cost)	Tariff (Lovelized Eived Cost)	Total Tariff for the FY 2026-27	Levelized (Useful Life)
RE Technology	(Rs./MT)	INR/kWh	INR/kWh	INR/ kWh	Indicative INR / kWh
Biomass (Air Cooled - TG, 100% Paddy Straw)	3,706	5.71	3.31	9.01	10.42
Biomass (Air Cooled - AFBC, 100% Paddy Straw)	3,706	5.60	3.30	8.90	10.29
Biomass (Water Cooled - TG, 100% Paddy Straw)	3,706	5.58	3.13	8.71	10.09
Biomass (Water Cooled - AFBC, 100% Paddy Straw)	3,706	5.48	3.12	8.60	9.96
Biomass (Air Cooled - TG, Biomass)	4,692	7.22	3.15	10.37	12.16
Biomass (Air Cooled - AFBC, Biomass)	4,692	7.09	3.14	10.24	11.99
Biomass (Water Cooled - TG, Biomass)	4,692	7.06	2.98	10.04	11.79
Biomass (Water Cooled - AFBC, Biomass)	4,692	6.94	2.97	9.91	11.62
Bagasse Co-generation (Sugar Mills)	2,635	4.61	2.97	7.58	8.72
Biomass / Non-Bagasse Cogeneration	4,692	5.95	2.17	8.12	9.60
Biomass Based Gasifier	4,692	6.52	3.21	9.73	11.34
Biogas	777	2.65	4.20	6.85	7.50