

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

**Case No: HERC / Petition No. 30 of 2022
Suo Motu**

Date of Order

05.08.2022

In the Matters of:

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

AND

In the matter of

Determination of tariff / Indicative tariff for the RE power projects, as per the eligibility criteria specified in HERC RE Regulations, 2021, on the basis of suo-motu proceedings for the RE Power Projects commissioned / to be commissioned in the FY 2021-22 and the FY 2022-23.

Quorum

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

**Chairman
Member**

ORDER

Brief Background

1. 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) Regulations, 2021 (hereinafter referred to as RE Regulations 2021) on 30th April 2021. As per regulation 4 of the said Regulations "the Control Period for the purpose of tariff determination under these Regulations shall be from the FY 2021-22 to the FY 2024-25". Further, regulation 9 of the said Regulations provides as under: -

"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** (emphasis added). 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”.

2. Accordingly, the Commission, under the enabling clause of the regulations supra, had, vide its order dated 21.03.2022 in HERC / Petition No. 52 of 2021, determined fuel cost as under:-

<u>FY 2021-22</u> Nature of Project	Fuel Cost (Rs. /MT)	Fuel Cost (Rs./kWh)
Biomass (Air Cooled - Travelling Grate Boiler) Single Fuel (Paddy)	2,186.26	3.37
Biomass (Air Cooled - AFBC Boiler) Single Fuel (Paddy)	2,186.26	3.31
Biomass (Water Cooled - Travelling Grate Boiler) Single Fuel (Paddy)	2,186.26	3.29
Biomass (Water Cooled - AFBC Boiler) Single Fuel (Paddy)	2,186.26	3.23
Biomass (Air Cooled - Travelling Grate Boiler) - Mixed Fuel	3,000.00	4.54
Biomass (Air Cooled - AFBC Boiler) Mixed Fuel	3,000.00	4.47
Biomass (Water Cooled - Travelling Grate Boiler) Mixed Fuel	3,000.00	4.44
Biomass (Water Cooled - AFBC Boiler) Mixed Fuel	3,000.00	4.37
Bagasse based Co-generation	1027.00	1.80
Non-Bagasse based Co-generation	3,000.00	3.81
Biomass Gasifier	3,000.00	4.17
Biogas	685.00	2.34

<u>FY 2022-23</u> Nature of Project	Fuel Cost (Rs. /MT)	Fuel Cost (Rs. /kWh)
Biomass (Air Cooled - Travelling Grate Boiler) Single Fuel (Paddy)	3,113.14	4.79
Biomass (Air Cooled - AFBC Boiler) Single Fuel (Paddy)	3,113.14	4.71
Biomass (Water Cooled - Travelling Grate Boiler) Single Fuel (Paddy)	3,113.14	4.69
Biomass (Water Cooled - AFBC Boiler) Single Fuel (Paddy)	3,113.14	4.60
Biomass (Air Cooled - Travelling Grate Boiler) - Mixed Fuel	3,313.94	5.01
Biomass (Air Cooled - AFBC Boiler) Mixed Fuel	3,313.94	4.94
Biomass (Water Cooled - Travelling Grate Boiler) Mixed Fuel	3,313.94	4.90
Biomass (Water Cooled - AFBC Boiler) Mixed Fuel	3,313.94	4.83
Bagasse based Co-generation	2,000.00	3.50
Non-Bagasse based Co-generation	3,313.94	4.21
Biomass Gasifier	3,313.94	4.60
Biogas	685.00	2.34

Present Proceedings:-

The Commission, however, had not determined the generic levelized fixed tariff for the RE Projects eligible under the HERC RE Regulations 2021 for the RE projects commissioned in the FY 2021-22 and to be commissioned / already commissioned in the FY 2022-23.

3. The Commission observes that the various components of fixed cost for determination of tariff is already specified in the HERC RE Regulations, 2021. Hence, the same is not being re-produced here.

4. Additionally, the fuel / variable cost component stands calculated and determined in the Commission's order dated 21st March, 2022 (Case No. HERC / Petition No. 52 of 2021); which has been reproduced earlier in the present order. Consequently, the same shall be applicable for the FY 2021-22 and FY 2022-23 as per the said order.
5. Accordingly, the tariff determined for the FY 2021-22 and the FY 2022-23, comprising of levelized fixed cost for the entire useful life of the projects and fuel cost for the FY 2021-22 and the FY 2022-23 is as under:-

FY 2021-22				
RE Technology	Fuel Cost (INR / kWh)	Levelised Fixed Cost	Tariff (2021-22)	Levelised (Useful Life)
	(HERC order dated 21.03.2022)	INR/kWh)	INR / kWh)	Indicative INR / kWh
Biomass (Air Cooled - TG, 100% Paddy Straw)	3.37	2.62	5.99	8.14
Biomass (Air Cooled - AFBC, 100% Paddy Straw)	3.31	2.61	5.92	8.03
Biomass (Water Cooled - TG, 100% Paddy Straw)	3.29	2.47	5.76	7.87
Biomass (Water Cooled - AFBC, 100% Paddy Straw)	3.23	2.47	5.70	7.77
Biomass (Air Cooled - TG, Biomass Mix)	4.54	2.44	6.98	8.33
Biomass (Air Cooled - AFBC, Biomass Mix)	4.47	2.44	6.91	8.24
Biomass (Water Cooled - TG, Biomass Mix)	4.44	2.31	6.75	8.06
Biomass (Water Cooled - AFBC, Biomass Mix)	4.37	2.30	6.67	7.97
Bagasse Co-generation (Sugar Mills)	1.80	2.35	4.15	6.31
Biomass / Non-Bagasse Cogeneration	3.81	1.66	5.47	6.60
Biomass Based Gasifier	4.17	2.23	6.40	7.64
Biogas	2.34	2.87	5.21	5.64
FY 2022-23				
RE Technology	Fuel Cost (INR / kWh)	Levelised Fixed Cost	Tariff (2022-23)	Levelised (Useful Life)
	(HERC order dated 21.03.2022)	INR/kWh)	INR / kWh)	Indicative INR / kWh
Biomass (Air Cooled - TG, 100% Paddy Straw)	4.79	2.66	7.45	8.49
Biomass (Air Cooled - AFBC, 100% Paddy Straw)	4.71	2.66	7.37	8.38
Biomass (Water Cooled - TG, 100% Paddy Straw)	4.69	2.52	7.21	8.22
Biomass (Water Cooled - AFBC, 100% Paddy Straw)	4.60	2.51	7.11	8.11
Biomass (Air Cooled - TG, Biomass Mix)	5.01	2.48	7.49	8.58
Biomass (Air Cooled - AFBC, Biomass Mix)	4.94	2.47	7.41	8.48
Biomass (Water Cooled - TG, Biomass Mix)	4.90	2.34	7.24	8.30
Biomass (Water Cooled - AFBC, Biomass Mix)	4.83	2.34	7.17	8.21
Bagasse Co-generation (Sugar Mills)	3.50	2.39	5.89	6.64
Biomass / Non-Bagasse Cogeneration	4.21	1.69	5.90	6.80
Biomass Based Gasifier	4.60	2.27	6.87	7.87
Biogas	2.34	2.91	5.25	5.75

Note: For FY 2021-22 levelized tariff has been worked out on the basis of the revised fuel cost w.e.f 1.04.2022 with annual escalation factor as per RE Regulations 2021.

6. All the terms and conditions of the HERC RE Regulations, 2021 shall be applicable. Hence, the above tariff has to be necessarily read with the terms and conditions of the said Regulations. The fuel cost shall be applicable prospectively for the projects commissioned during the previous control period(s).

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 05.08.2022.

Date: 05.08.2022
Place: Panchkula

(Naresh Sardana)
Member

(R.K. Pachnanda)
Chairman

HERC