

HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION
Vidyut Aayog Bhawan, Block No, 37, SDA Complex, Kasumpti, Shimla-171009.

Suo-Motu Petition No. 23 of 2021

In the matter of: Fixing the rate of sale of Free Power of the Government of Himachal Pradesh to Himachal Pradesh State Electricity Board Limited (HPSEBL) for FY 2021-22.

Coram:

Sh. D.K. Sharma,
Chairman

Sh. Bhanu Pratap Singh
Member

Order

(Date of Order: 06.05.2021)

Background

- 1.1 The Government of Himachal Pradesh (hereinafter referred to as “GoHP” or “State Government”) has Free Power entitlement in various generating stations of NTPC, NHPC, SJVNL, PSEB, HPSEBL and IPPs in lieu of project site being used by these generating stations. The detail of free power entitlements from these generating stations is given in Table 1 below:-

Table 1: Free Power Entitlement of GoHP

Generating Station	Free Power Share
Bairasiul	12.00%
Chamera-I	12.00%
Chamera –II	12.00%
Chamera –III	12.00%
Koldam	12.00%
Parbati-III	12.00%
Karcham Wangtoo	12.00%
Allian Duhangan	12.00%
Nathpa Jhakri	12.00%
Rampur	12.00%
Sainj	12.00%
Ranjeet Sagar Dam Share	4.60%
Shanan	2.63 MU
Baspa - II	12.00%
Malana-1	20.00%
Ghanvi	12.00%
Ghanvi-II	12.00%

Generating Station	Free Power Share
Baner	12.00%
Gaj	12.00%
Larji	12.00%
Khauli	12.00%
Patikari	12.00%
Toss	15.00%
Sarbari-II	12.00%
Upper Joiner	15.00%
Sumez	15.00%
Beas Kund	13.65%
Neogal	15.00%
Baner-II	12.00%
Baragaon	15.00%
Malana-II	12.00%
Budhil	12.00%
Kurmi	12.73%
Jogini	13.65%
Nanti	13.29%
Tangling	3.00%
Rukti-II	3.00%
Sach	6.00%
Suman Sarwari	2.5%
Binwa-IV	6.00%
Maujhi-II	6.00%
Aleo-II	8.03%
Jogni-II	7.00%
Kurtha	8.23%
Neogal-II	3.00%
Shimla	7.00%
Awa-II	3.00%
Brua	12.52%
Baner Sangam	12.00%
Kashang	12.00%
Chanju-I	12.00%
Lower Aleo	9.00%
Brahl Top	6%&1%LADF
Haripur Nalah	3%&1%LADF
Titang	10.00%
Raskat	10.00%
Upper Nanti	16.02%
Shaung	1%LADF
Solang	3%&1%LADF
Gaj Top	6%&1%LADF
Behna-I	0.69%&1%LADF

Generating Station	Free Power Share
Leond	2%&1%LADF
Sarwari-III	2%&1%LADF
Kotagad	6%&1%LADF
Serai	2%&1%LADF
Dehar	10%
Ching	10%
Jeori	3%&1%LADF
Gaj-III	1%LADF
Aleo	10%
Siunr	1%LADF
Wanger Homte	1%LADF
Jail	2%&1%LADF
Kiunr	6%&1%LADF
Hysrund	9%&1%LADF
Raura	1% LADF
Salun	2.36%&1%LADF
Kuwarsi-II	1.89%&1% LADF
Manuni	1%
Balargha	15.41%
Kut	1%

- 1.2 The entire Free Power share of the State Government was available to HPSEBL before FY05 at a rate equal to the tariff rate of the lowest slab for domestic consumers i.e. 70 paise per unit.
- 1.3 During FY06, the Free Power was made available by Govt. of H.P. to HPSEBL during the winter months only (November to March) and at a rate equal to the average cost of power purchase of HPSEBL from various sources, which was Rs 1.93 per unit.
- 1.4 Presently the rate of Free Power of Govt. of Himachal Pradesh is being decided by HPERC in accordance with the power conferred under section 86 (1) (b) of the Electricity Act, 2003 and the Electricity [Removal of Difficulty] (Third) Order, 2005 issued by Ministry of Power, Govt. of India which came in to force on June 8, 2005.
- 1.5 From 2007 till 2011, the Commission switched over to the concept of marginal cost of power from Central Sector Generating Stations. On the basis of this new approach the Commission fixed the price of Free Power to be purchased by HPSEBL at Rs. 2.35, Rs. 3.04, Rs. 3.04, Rs. 2.87 and Rs. 3.19 per unit in 2007, 2008, 2009, 2010 and 2011 respectively.
- 1.6 In FY12, the Commission revised its methodology for determination of Free Power rate and determined the Free Power rate by taking into consideration the average cost of power purchased by HPSEBL from all sources (except banking) and the ex-bus bar rate of energy of the stations from which HPSEBL has GoHP Free Power availability. The notional cost of Free Power was determined by considering the maximum of average power purchase rate in FY11 and the ex-bus rate of the

respective station in FY11, and then multiplying the higher of the two by the quantum of Free Power received from the respective station. The average rate of Free Power was thus determined as Rs 2.96 per unit for FY12.

- 1.7 The Commission continued with the same methodology for determination of Free Power rate for FY13 & FY14 and fixed the rate of Free Power at Rs 2.90 and Rs. 2.92 per unit respectively.
- 1.8 The Commission while determining the Free Power rate for FY15 decided that it will continue with the this methodology for determining the rate of free power during the Third MYT Control Period from FY15 to FY19 because this approach allows best possible rate of power to the State Govt. and simultaneously ensures assured power on consistent, realistic and visible rates to HPSEBL. Accordingly the Commission decided that the cost of free power of GoHP for the n^{th} year shall be decided by considering the maximum of the average power purchase rate of HPSEBL as estimated by the Commission for the $(n-1)^{\text{th}}$ year and the ex-bus rate of the respective station as determined by CERC/ HPERC for $(n-1)^{\text{th}}$ year and multiplying the same with the quantum of free power projected by HPSEBL to be received from the respective station during the n^{th} year. The average cost of power thus derived shall be the rate of GoHP free power to be purchased by HPSEBL during n^{th} year.
- 1.9 The Commission continued with the above methodology for determination of Free Power rate for FY15, FY16, FY17, FY18 & FY19 and fixed the rate of Free Power at Rs. 2.87, Rs. 2.80, Rs. 2.92, Rs. 2.63 and Rs. 2.48 per unit respectively.

Determination of the rate of Free Power for FYs 2019-20, 2020-21 & FY2021-22

- 1.10 The Commission while determining the Free Power rate for FY20 decided that it will continue with the this methodology for determining the rate of free power during the fourth MYT Control Period from FY20 to FY24 with slight changes as explained hereinafter. The Commission decided that the cost of free power of GoHP for the n^{th} year shall be decided by considering the maximum of the average power purchase rate of HPSEBL as estimated by the Commission for the $(n-1)^{\text{th}}$ year and the ex-bus rate of the respective station as determined by CERC/ HPERC/ Other State Commissions for $(n-1)^{\text{th}}$ year and multiplying the same with the estimated quantum of free power received by HPSEBL from the respective station during the $(n-1)^{\text{th}}$ year. In case ex-bus rate of a generating station for $(n-1)^{\text{th}}$ year is not available then the same shall be taken as Average Power Procurement Cost (APPC) rate of HPSEBL as determined by the Commission for $(n-1)^{\text{th}}$ year or Power Purchase Agreement (PPA) rate, if available. Thus, the weighted average cost of power thus derived shall be the rate of GoHP free power to be purchased by HPSEBL during n^{th} year. Accordingly, free power rate determined by the Commission for FY20 & FY21 were Rs. 2.56 & Rs. 2.50 per unit respectively. The free power rate for FY22 has been determined on same methodology as follows.
- 1.11 HPSEBL in its tariff petition for fourth Control Period has proposed that it will be utilizing only the free power available from generating stations that are currently connected with HPSEBL's system and/or it has power purchase agreements with such generators. Accordingly HPSEBL projected that the Free Power only from

Shanan, Ranjeet Sagar Dam, Baspa, Malana, HPSEBL's own generating stations and IPPs connected with its system will be availed by it.

- 1.12 HPSEBL has supplied the details of actual GoHP Free Power availed by it from various stations for the first six months of FY21. The Commission has accordingly estimated the station wise free power availed by HPSEBL for complete FY21.
- 1.13 For own generating stations of HPSEBL, the ex-bus rates as decided by the Commission have been considered.
- 1.14 The ex-bus rates of Ranjeet Sagar Dam and Shanan have been considered the same as determined by PSERC in its tariff order for FY2020-21 dated 1st June, 2020.
- 1.15 For private small hydro electric plants the ex-bus rates equivalent to their PPA rates as approved by the Govt. of H.P. / Commission have been considered.
- 1.16 In the absence of any specific tariff for small HEPs, the Commission has considered the ex-bus rate as Rs. 2.35 per unit equal to HPSEBL's average power purchase cost (APPC) for FY21 as determined by the Commission vide order dated 31.03.2021.
- 1.17 The notional cost of Free Power to be received by HPSEBL in FY21 has been determined by considering the maximum of average power purchase rate of Rs 2.44 per unit for FY21 as estimated by the Commission and the ex-bus rate of the respective station, and multiplying the higher of the two by the estimated quantum of Free Power available to HPSEBL from the respective station in FY21.

Therefore, as per the principle/ methodology, the rate of Free Power for FY22 is arrived at Rs 2.49 per unit, as shown in following Table 2 :-

Table 2: Free Power Rate for FY 22

Generating Station	FY21 Free Power Availability to HPSEBL	FY21 Average Power Purchase Cost estimated by Commission	FY21 Ex-Bus Rate of the Station	Free Power Cost (Max of Avg Purchase Cost & Ex Bus Rate)
	(MU)	(Rupee/unit)	(Rupee/unit)	(Rs Cr)
	A	B	C	$D = A * \text{Max}(B \text{ or } C)$
Shanan	2.63	2.44	0.78	0.64
RSD	79.84	2.44	2.40	19.48
Malana	66.03	2.44	2.35	16.11
Baspa-II	152.62	2.44	2.36	37.24
Chanju I (36MW)	22.71	2.44	2.35	5.54
Larji HEP	76.69	2.44	2.23	18.71
Khauli	6.09	2.44	2.25	1.49
Ghanvi	11.20	2.44	2.25	2.73

Generating Station	FY21 Free Power Availability to HPSEBL	FY21 Average Power Purchase Cost estimated by Commission	FY21 Ex-Bus Rate of the Station	Free Power Cost (Max of Avg Purchase Cost & Ex Bus Rate)
	(MU)	(Rupee/unit)	(Rupee/unit)	(Rs Cr)
	A	B	C	$D = A * \text{Max}(B \text{ or } C)$
Gaj	6.92	2.44	2.85	1.97
Baner	6.09	2.44	2.93	1.78
Ghanvi-II	5.36	2.44	2.25	1.31
Tangling*	0.26	2.44	2.95	0.08
Rukti-II**	0.32	2.44	2.95	0.09
Suman Sarwari	0.69	2.44	2.5	0.17
Binwa-IV	1.21	2.44	3.35	0.41
Maujhi-II	0.97	2.44	2.95	0.29
Aleo -II	1.34	2.44	3.37	0.45
Jogini-II	2.29	2.44	3.37	0.77
Kurtha	2.20	2.44	3.23	0.71
Awa	0.08	2.44	2.5	0.02
Raskat	0.34	2.44	2.50	0.09
Shaung	0.15	2.44	3.00	0.05
Titang	0.07	2.44	2.50	0.02
Solang	0.05	2.44	2.50	0.01
Haripur Nallah	0.34	2.44	2.50	0.08
Gaj Top	0.56	2.44	3.21	0.18
Behna-I	0.30	2.44	3.08	0.09
Leond	0.22	2.44	3.17	0.07
Sarwari-III	0.31	2.44	3.17	0.10
Kotagad	1.00	2.44	3.37	0.34
Serai	0.18	2.44	3.37	0.06
Dehar	0.55	2.44	3.23	0.18
Ching	0.05	2.44	2.50	0.01
Patikari	6.73	2.44	2.25	1.64
Toss	7.35	2.44	2.50	1.84
Sarbari-II	4.52	2.44	2.92	1.32
Beas kund	5.08	2.44	2.87	1.46
Neogal	7.15	2.44	2.25	1.74
Kurmi	3.37	2.44	3.20	1.08
Brua	5.59	2.44	2.93	1.64
Jeori	1.16	2.44	3.50	0.40
Gaj-III	0.08	2.44	3.27	0.03
Aleo	0.09	2.44	2.50	0.02
Siunr	0.02	2.44	2.95	0.01

Generating Station	FY21 Free Power Availability to HPSEBL (MU) A	FY21 Average Power Purchase Cost estimated by Commission (Rupee/unit) B	FY21 Ex-Bus Rate of the Station (Rupee/unit) C	Free Power Cost (Max of Avg Purchase Cost & Ex Bus Rate) (Rs Cr) $D = A * \text{Max}(B \text{ or } C)$
Shimla	0.86	2.44	2.35	0.21
Brahl Top	1.72	2.44	2.35	0.42
Kiunr	1.14	2.44	2.35	0.28
Hysrund	0.78	2.44	2.35	0.19
Upper Joiner	5.74	2.44	2.35	1.40
Sumez	8.34	2.44	2.35	2.03
Jongini	8.88	2.44	2.35	2.17
Baner-II	2.65	2.44	2.35	0.65
Raura	0.43	2.44	2.35	0.10
Nanti	6.23	2.44	2.35	1.52
Baragaon	7.69	2.44	2.35	1.88
Baner Sangam	2.90	2.44	2.35	0.71
Manuni	0.12	2.44	2.35	0.03
Lower Aleo	1.08	2.44	2.35	0.26
Upper Nanti	6.35	2.44	2.35	1.55
Balargha	9.12	2.44	2.35	2.22
Kut	1.08	2.44	2.35	0.26
	555.90			138.33
Approved Free Power Rate (Rounded off)			[D ÷ A] Rupee/unit	2.49

1.18 The Commission, therefore, determines the price of GoHP Free Power for FY22 at **Rs. 2.49 per unit** for purchase by HPSEBL.

1.19 This Order shall be effective for the financial year 2021-22 i.e. till March 31, 2022, unless allowed to be continued for further period with such variations and modifications as may be ordered by the Commission.

-Sd-
(Bhanu Pratap Singh)
Member

-Sd-
(D.K. Sharma)
Chairman

Date: 06.05.2021