

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

In the matter of: Fixing the rate of sale of Free Power by the Government of Himachal Pradesh to Himachal Pradesh State Electricity Board Limited (HPSEBL) for FY 2018-19

Coram:

Sh. S.K.B.S. Negi,
Chairman

Sh. Bhanu Pratap Singh
Member

Order

(Date of Order: 13 .04.2018)

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%

Generating Station	Free Power Share
Ghanvi-II	12.00%
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%
Neogal-II	4.00%
Baner Sangam	12.00%
Kashang	12.00%
Chanju-I	12.00%
Lower Aleo	9.00%
Brahl Top	6.00%
Haripur Nalah	3.00%
Titang	10.00%
Raskat	10.00%
Upper Nanti	15.00%

- 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 and fixed the rate of Free Power at Rs. 2.87, Rs. 2.80, Rs. 2.92 and Rs. 2.63 per unit respectively.

Determination of the rate of Free Power for FY 2018-19

- 1.10 HPSEBL in its tariff petition for Third Control Period submitted that it will be utilizing equity power of Govt. of HP on a long term and therefore only the free power available from generating stations that are currently connected with HPSEBL's system will be availed by it. 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 during FY19.
- 1.11 HPSEBL in the tariff petition for FY19 also has submitted that it will be availing free power from stations mentioned in para 1.10.
- 1.12 HPSEBL has supplied the details of Free Power likely to be available to it from various stations during FY19.
- 1.13 Principal secretary (Power) to GoHP vide D.O. letter dated 20th March, 2018 requested this Commission to consider all the power stations in which GoHP has royalty share while determining the royalty power rate for FY 2018-19.
- 1.14 The Commission has considered this aspect and is of the view that consideration of all the power stations in which GoHP has royalty power may not be appropriate as HPSEBL is drawing free power from limited number of power stations on full year basis. However, keeping in view the concerns raised by GoHP, the Commission has considered the plant wise actual GoHP free energy utilized by HPSEBL during FY 2017-18. The figures of free energy till February, 2018 are on actual basis and estimated figures for the month of March, 2018 has been considered for determining the GoHP free power rate for FY 2018-19.
- 1.15 Further, it has been conveyed by Principal Secretary (Power) to GoHP that some of the IPP's are selling its power in the open market and are availing the benefit of REC mechanism. Therefore, it has been requested to consider this aspect while fixing the ex-bus rates for determining of the free power rate of GoHP by the commission.
- 1.16 The ex-bus rates of power plants selling its energy through REC mechanism and/or in the short term market is not known as no commission has determined their rates. Also, the benefits of REC earns are notional as actual realization depends upon its redemption/ sale at the platform of Power Exchanges. Moreover, such generators are very few and have very less weight in the determination of free power rate. Therefore, the Commission has rightly considered the PPA rate/ APPC rate of HPSEBL for determining the rate of GoHP free power for these generators.
- 1.17 For own generating stations of HPSEBL, the ex-bus rates as decided by the Commission in the MYT Order dated 10th June, 2014 have been considered.

- 1.18 For Baspa-II the rate of energy as determined by the Commission vide its MYT Order dated 6th June, 2014 have been considered.
- 1.19 The ex-bus rates of Ranjeet Sagar Dam and Shanan have been considered the same as determined by PSERC in its tariff order for FY17-18 dated 23rd October, 2017.
- 1.20 For private SHPs viz. Patikari, Toss, Sarbari-II, Upper Joiner, Tangling, Sumez, Beas Kund, Malana, Kurmi, Binwa-IV, Maujhi-II, Aleo-II and Neogal the ex-bus rates equivalent to their PPA rates as approved by the Govt. of H.P. / Commission have been considered.
- 1.21 In the absence of any specific tariff for small HEPs, the Commission has considered Ex-Bus rate equal to HPSEBL's average power purchase rate for FY18. For Kashang HEP, the Commission has considered Ex-Bus rate equal to Rs. 2.20/- per unit as HPSEBL has taken this power at this rate during FY18.
- 1.22 The notional cost of Free Power to be received by HPSEBL in FY19 has been determined by considering the maximum of average power purchase rate of Rs 2.43 per unit for FY18 as per the Commission's order dated 04th August, 2017 and the ex-bus rate of the respective station, and multiplying the higher of the two by the quantum of Free Power available to HPSEBL from the respective station in FY18.

Therefore, as per the principle/ methodology, the rate of Free Power for FY19 is arrived at Rs 2.48 per unit, as shown in following Table 2 :-

Table 2: Free Power Rate for FY 19

Generating Station	FY18 Expected Availability to HPSEBL	FY18 Average Power Purchase Cost determined by Commission	FY18 Ex-Bus Rate of the Station	Free Power Cost (Max of Avg Purchase Cost & Ex Bus Rate)
	(MU)	(Paise/unit)	(Paise/unit)	(Rs Cr)
	A	B	C	$D = A * \text{Max}(B \text{ or } C)$
Shanan	2.63	243.00	75.00	0.64
RSD	83.77	243.00	228.00	20.36
Malana	69.51	243.00	250.00	17.38
Baspa-II	160.49	243.00	162.00	39.00
Kashang HEP	25.55	243.00	220.00	6.21
Chanju I (36MW)	11.91	243.00	250.00	2.98
Larji HEP	72.85	243.00	218.00	17.70
Koldam	2.11	243.00	434.00	0.92
Nathpa Jhakri	3.55	243.00	233.00	0.86
Khauri	4.80	243.00	225.00	1.17
Ghanvi	9.51	243.00	225.00	2.31

Generating Station	FY18 Expected Availability to HPSEBL	FY18 Average Power Purchase Cost determined by Commission	FY18 Ex-Bus Rate of the Station	Free Power Cost (Max of Avg Purchase Cost & Ex Bus Rate)
	(MU)	(Paise/unit)	(Paise/unit)	(Rs Cr)
	A	B	C	$D = A * \text{Max}(B \text{ or } C)$
Gaj	4.14	243.00	326.00	1.35
Baner	4.62	243.00	197.00	1.12
Ghanvi-II	2.90	243.00	317.00	0.92
Tangling	0.17	243.00	295.00	0.05
Rukti-II	0.85	243.00	295.00	0.25
Sach	0.13	243.00	295.00	0.04
Suman Sarwari	0.55	243.00	250.00	0.14
Binwa-IV	1.15	243.00	321.00	0.37
Maujhi-II	0.58	243.00	295.00	0.17
Aleo -II	1.62	243.00	295.00	0.48
Jogini-II	1.44	243.00	243.00	0.35
Kurtha	1.52	243.00	323.00	0.49
Neogal-II	0.06	243.00	250.00	0.02
Shimla	0.66	243.00	243.00	0.16
Awa-II	0.04	243.00	250.00	0.01
Raskat	0.34	243.00	250.00	0.09
Titang	0.12	243.00	250.00	0.03
Brahl Top	0.63	243.00	295.00	0.19
Manuni	0.11	243.00	243.00	0.03
Patikari	7.01	243.00	225.00	1.70
Toss	7.80	243.00	250.00	1.95
Sarbari-II	4.30	243.00	295.00	1.27
Upper Joiner	5.31	243.00	243.00	1.29
Sumez	6.68	243.00	243.00	1.62
Beaskund	5.73	243.00	243.00	1.39
Neogal	7.62	243.00	225.00	1.85
Kurmi	2.92	243.00	243.00	0.71
Jongini	4.46	243.00	243.00	1.08
Nanti	5.58	243.00	250.00	1.40
Baner-II	2.10	243.00	243.00	0.51
Baragaon	9.65	243.00	250.00	2.41
Brua	6.54	243.00	271.00	1.77
Shaung	0.16	243.00	300.00	0.05
Baner Sungum	2.58	243.00	250.00	0.65
Solang	0.11	243.00	250.00	0.03
Haripur Nallah	0.16	243.00	250.00	0.04

Generating Station	FY18 Expected Availability to HPSEBL (MU) A	FY18 Average Power Purchase Cost determined by Commission (Paise/unit) B	FY18 Ex- Bus Rate of the Station (Paise/unit) C	Free Power Cost (Max of Avg Purchase Cost & Ex Bus Rate) (Rs Cr) $D = A * \text{Max}(B \text{ or } C)$
Lower Aleo	0.15	243.00	243.00	0.04
	547.17			135.52
Approved Free Power Rate (Rounded off)		[D ÷ A]	Paise/unit	248

1.23 The Commission, therefore, determines the price of GoHP Free Power for FY19 at **Rs. 2.48 per unit** for purchase by HPSEBL.

1.24 This Order shall be effective for the financial year 2018-19 i.e. till March 31, 2019, 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/-

(S.K.B.S. Negi)
Chairman

Shimla

Date: 13 -04-2018