

HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION

Keonthal Commercial Complex, Khalini, Shimla – 171 002, 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 14

Coram:

Sh. Subhash Chander Negi,
Chairman

Order

(Date of Order: 26.04.2013)

Background

- 1.1 The Government of Himachal Pradesh (hereinafter referred to as “GoHP” or “State Government”) has Free Power entitlement in the generating stations of NTPC, NHPC, SJVNL, PSEB, HPSEBL’s own generating stations and IPP stations in lieu of State resources being used by these generating stations as detailed 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%
Shanan Share	Fixed*
Baspa – II	12.00%
Patikari	12.00%
Nathpa Jhakri	12.00%
Ghanvi	12.00%
Baner	12.00%
Gaj	12.00%
Larji	12.00%
Khauli	12.00%
Toss	15.00%
Sarbari	12.00%
Upper Joiner	15.00%
Tangling	3.00%

- 1.2 Prior to FY05, the entire Free Power share of the State Government was available to HPSEBL at a rate equal to the tariff rate of the lowest slab for domestic consumers i.e. 70 paise per unit.
- 1.3 Subsequently, in 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 The rate of Free Power of Govt. of Himachal Pradesh is being decided now 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 GoHP has Free Power entitlement. 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 For determination of Free Power rate for FY13, the Commission found merit in continuing with the same methodology and fixed the rate of Free Power for FY13 at Rs 2.90 per unit.
- 1.8 In the adjoining state of Uttarakhand, the rate of free power equivalent to the average power purchase rate from all other firm sources except free energy is being considered by UERC.
- 1.9 The Commission notices that there is no consistency in the marginal cost concept and also it is not reflective of reasonable and consistent market cost. At the same time, average power purchase cost, which was followed by the H.P. earlier and is being followed by Uttarakhand also, does not bring in adequate revenues to the State because free power is compensation in lieu of project site allotted and should bring best price, unless State/ Govt. of H.P. decides to give it on a reasonable/ cheaper rate to its consumers for economic and social development objectives. Actual cost of power based on cost plus preferential tariff principles is determined by the concerned Regulatory Commission, of the Centre or the H.P. If tariff determined is much higher in terms of market, free power should also get such price because the balance power is purchased by the beneficiary states on such rates. However, if tariff is much lower, HPSEBL should pay at least its average power purchase cost.
- 1.10 In order to test this principle in terms of market realities, the Commission carried out an exercise of working out inter-state periphery and inter-region periphery rates of free power after calculating actual inter-state purchase incidental costs and also market and U.I. rates for FY13. HPSEBL purchases Power from CSGS and other sources which flows through inter-state/ inter-region mode/ systems, that involve various costs, over the generation rates, details of which as per information filings of HPSEBL are as under:-

Table 1: Detail of Losses for Power Purchase by HPSEBL

Year	Total Ex-bus Inter-state purchase (MU)	Cost of purchase (Rs. Cr)	Per unit cost (Paise)	Interstate Losses (MU)	Net power available (MU)	Per unit Cost of losses (Paise)	Per unit cost of losses (Paise)
2012-13	5377.28	1336.48	248.54	191.75	5185.53	257.73	9.19
2013-14	6351.92	1646.85	259.27	226.87	6125.04	268.87	9.60

Table 2: Detail of Incidental Charges for Power Purchase by HPSEBL

Year	PGCL charges (Rs Cr.)	SLDC charges (Rs Cr.)	PTC charges (Rs Cr.)	Total Charges (Rs. Cr)	Per unit cost of PGCL/PTC/SLDC charges (Paise)	Total additional Cost of Interstate Power (Paise/ unit)
2012-13	167.23	9.83	25.25	202.31	39.01	48.20
2013-14	199.24	10.81	26.51	236.56	38.62	48.23

As per the above tables the losses in kind for free power @ Rs. 2.90 per unit will be 10.15 paise. For inter-region sales total cost will be approximately 21 paise more. Hence, cost of Free Power @ Rs. 2.90 per unit at generation bus being paid by HPSEBL is equivalent to Rs. 3.40 per unit at inter-state periphery and Rs. 3.61 per unit at inter-region periphery.

- 1.11 If transmission charges, losses, system operation costs, trading charges and administrative cost of State Govt. etc. up to inter-state/ inter region periphery are accounted for over and above the free power rate fixed by the Commission, the additional cost will be between 50 to 70 paise per unit and the rate of free power of Rs. 2.90 per unit for FY13 will work out between Rs. 3.40 to Rs. 3.60 per unit. This rate aligns with the market rate. UI/ Energy Exchange average power purchase rate by HPSEBL in FY12 and FY13 was between Rs 3.07 to Rs. 3.45 per unit whereas UI/ Energy Exchange average power sale rate was between Rs. 2.76 to Rs. 3.53 per unit during same period.
- 1.12 This rate also aligns with the rate at which the State Govt. is selling its equity power and balance free power in FY13 outside the State on inter-state or inter-region periphery and is in fact higher than average realization by the State Govt. in some situations.
- 1.13 The Commission, therefore, finds merit in continuing with the current methodology for determining the rate of free power during FY14, as well as in future, because, on the one hand rate being allowed is the best Govt. can get and also HPSEBL gets assured power on consistent and realistic rate.

Determination of the rate of Free Power for FY 2013-14

- 1.14 For determining the ex-bus rates for various generating stations the Commission has considered the rates decided by CERC, HPERC and rates of PPA.
- 1.15 The Commission finds that there has been variation in the rates based on actual payouts and the rates determined by the CERC/ HPERC on the basis of Annual Fixed Cost and the design energy. The Commission has therefore worked out the ex-bus rate for each Central

Generating Station on actual amount paid by HPSEBL for SOR share in the CGS station on the basis of tariffs decided by CERC during FY13.

- 1.16 For own generating stations of HPSEBL, the ex-bus rates as decided by the Commission in the 2nd MYT Order dated 19 July, 2011 have been considered.
- 1.17 For Baspa-II the ex-bus rate on the basis of tariff as determined by HPERC vide its order dated 6th September, 2012 has been considered.
- 1.18 The ex-bus rate of Rajeet Sagar Dam has been determined by the Commission on the basis of submissions made by HPSEB during FY13.
- 1.19 For private SHPs viz. Patikari, Toss, Sarbari, Upper Joiner and Tangling, the ex-bus rates equivalent to their PPA rates as approved by the Govt. of H.P./ Commission have been considered.
- 1.20 Therefore, the notional cost of Free Power received by HPSEBL in FY14 has been determined by considering the maximum of average power purchase rate in FY13 (excluding banking) as per the Commission's estimates i.e. Rs 2.25 per unit, and the ex-bus rate of the respective station, and multiplying the higher of the two by the quantum of Free Power from the respective station in FY13.
- 1.21 For the generating stations such as Allian Duhangan and Karcham Wangtoo etc. having free power share of Govt. of HP but whose tariff is neither determined by CERC nor HPERC; the average rate for Free Power as determined by the Commission in this order will be applicable.
- 1.22 HPSEBL has supplied the details of Free Power available to it from various stations during FY13, which has been considered by the Commission for working out the Free Power rate for FY14.

Therefore, the rate of Free Power for FY14 is determined at Rs 2.92 per unit, as shown in Table 2 below:-

Table 2: Free Power Rate for FY 14

Generating Station	FY13 Expected Availability to HPSEBL	FY13 Average Power Purchase Cost determined by Commission	FY13 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	$D = A * \text{Max}(B \text{ or } C)$
Bairasiul	41.11	225	144	9.27
Chamera-I	114.37	225	159	25.78
Chamera -II	144.55	225	292	42.17
Chamera-III	25.08	225	457	11.46
Shanan Share	2.63	225	44	0.59
Ranjeet Sagar Dam Share	52.49	225	505	26.49
Baspa - II	147.18	225	263	38.71
Nathpa Jhakri	386.46	225	297	114.96

Generating Station	FY13 Expected Availability to HPSEBL	FY13 Average Power Purchase Cost determined by Commission	FY13 Ex-Bus Rate of the Station	Free Power Cost (Max of Avg Purchase Cost & Ex Bus Rate)
	(MU)	(Paise/unit)	(Paise/unit)	(Rs Cr)
	<i>A</i>	<i>B</i>	<i>C</i>	$D = A * \text{Max}(B \text{ or } C)$
Ghanvi	3.69	225	135	0.83
Baner	1.70	225	131	0.38
Gaj	1.98	225	199	0.45
Larji	27.49	225	276	7.59
Khauri	1.84	225	177	0.41
Patikari	7.59	225	225	1.71
Toss	8.58	225	250	2.15
Sarbari	4.52	225	295	1.33
Upper Joiner	4.45	225	220	1.00
Tangling	0.47	225	295	0.14
Total	976.18			285.43
Approved Free Power Rate (Rounded off)		[D ÷ A]	Paise/unit	292

- 1.23 The Commission, therefore, determines the price of Free Power for FY14 at **Rs. 2.92 per unit** for sale to HPSEBL.
- 1.24 This rate of Rs. 2.92 per unit by adding transfer and operation charges of about 72 paise per unit at inter-region periphery and 50 paise per unit at inter-state periphery, comes out to about Rs. 3.64 per unit at inter- region periphery which is nearly equal to the rate of Rs. 3.60 per unit at which equity power is being sold to West Bengal and near to Rs. 3.44 per unit at inter-state periphery which is comparable or even higher than average price at which Govt. of H.P. is selling power outside the State.
- 1.25 This Order shall be effective from the date of issue of this Order till March 31, 2014, unless allowed to be continued for further period with such variations and modifications as may be ordered by the Commission.

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Shimla
Date: 26 April, 2013

Subhash Chander Negi
Chairman, HPERC