

# 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 16

**Coram:**

Sh. Subhash Chander Negi,  
Chairman

## **Order**

(Date of Order: 31.03.2015)

### **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%           |
| Karcham Wangtoo         | 12.00%           |
| Nathpa Jhakri           | 12.00%           |
| Rampur                  | 12.00%           |
| Ranjeet Sagar Dam Share | 4.60%            |
| Baspa - II              | 12.00%           |
| Malana                  | 15.00%           |
| Ghanvi                  | 12.00%           |
| 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%           |
| Kurmi                   | 12.73%           |

| Generating Station | Free Power Share |
|--------------------|------------------|
| 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%            |

- 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<sup>th</sup> 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)<sup>th</sup> year and

the ex-bus rate of the respective station as determined by CERC/ HPERC for (n-1)<sup>th</sup> year and multiplying the same with the quantum of free power received from the respective station during the (n-1)<sup>th</sup> year. The average cost of power thus derived shall be the rate of GoHP free power to be purchased by HPSEBL during n<sup>th</sup> year.

### **Determination of the rate of Free Power for FY 2015-16**

- 1.9 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 will be availed by it during FY15.
- 1.10 HPSEBL in the tariff petition for FY16 has submitted that it will be availing free power from stations mentioned in para 1.9. HPSEBL has also submitted that it shall be availing the free power from Bairasiul, Chamera-I and Chaemra-II HEPs to meet the shortfall of power due to surrendering of SOR share from certain central generating stations during FY16.
- 1.11 HPSEBL has supplied the details of Free Power available to it from various stations during 10 months of FY15, which has been projected by the Commission to work out the figures for FY15. This quantum has been considered by the Commission for working out the Free Power rate for FY16. In case of Bairasiul, Chamera-I and Chaemra-II HEPs, the quantum of free power on the basis design energy of these plants has been worked out.
- 1.12 For own generating stations of HPSEBL, the ex-bus rates as decided by the Commission in the MYT Order dated 10<sup>th</sup> June, 2014 have been considered.
- 1.13 For Baspa-II the rate of energy as determined by the Commission vide its MYT Order dated 6<sup>th</sup> June, 2014 have been considered.
- 1.14 The ex-bus rate of Rajeeet Sagar Dam has been considered the same determined by PSERC in its tariff order for FY14-15 dated 22<sup>nd</sup> August, 2014.
- 1.15 For Bairasiul, Chamera-I and Chaemra-II HEPs, the AFC as determined by CERC for FY14 has been considered as tariff for the current control period are yet to be determined.
- 1.16 For private SHPs viz. Patikari, Toss, Sarbari, Upper Joiner ,Tangling, Sumez, Beas Kund and Neogal the ex-bus rates equivalent to their PPA rates as approved by the Govt. of H.P./ Commission have been considered.
- 1.17 In the absence of any specific tariff for Malan HEP, the Commission has considered Ex-Bus rate equal to HPSEBL's average power purchase rate for FY15.
- 1.18 The notional cost of Free Power to be received by HPSEBL in FY16 has been determined by considering the maximum of average power purchase rate in FY15 (excluding banking) as per the Commission's estimates i.e. Rs 2.45 per unit, and the ex-bus rate of the respective station, and multiplying the higher of the two by the quantum of Free Power to be available to HPSEBL from the respective station in FY16.

Therefore, as per the principle/ methodology, the rate of Free Power for FY16 is arrived at Rs 2.80 per unit, as shown in following Table 2 :-

**Table 2: Free Power Rate for FY 16**

| Generating Station                            | FY16            | FY15 Average    | FY15 Ex-          | Free Power Cost                       |
|---|-----------------|-----------------|-------------------|---------------------------------------|
|   | Expected        | Power Purchase  | Bus Rate of       | (Max of Avg                           |
|   | Availability to | Cost determined | the Station       | Purchase Cost &                       |
|   | HPSEBL          | by Commission   |                   | Ex Bus Rate)                          |
|   | (MU)            | (Paise/unit)    | (Paise/unit)      | (Rs Cr)                               |
|   | A               | B               | C                 | $D = A * \text{Max}(B \text{ or } C)$ |
| Shanan Share                                  | 2.64            | 245.00          | 23                | 0.65                                  |
| Ranjeet Sagar Dam                             | 66.26           | 245.00          | 605               | 40.09                                 |
| Bairasiul                                     | 92.39           | 245.00          | 151               | 22.64                                 |
| Chamera-I                                     | 197.35          | 245.00          | 191               | 48.35                                 |
| Chamera-II                                    | 177.83          | 245.00          | 263               | 46.77                                 |
| Baspa - II                                    | 149.68          | 245.00          | 270               | 40.41                                 |
| Malana  | 64.71           | 245.00          | 245               | 15.85                                 |
| Ghanvi  | 9.95            | 245.00          | 225               | 2.44                                  |
| Ghanvi-II                                     | 4.27            | 245.00          | 317               | 1.35                                  |
| Baner   | 4.70            | 245.00          | 145               | 1.15                                  |
| Gaj   | 5.38            | 245.00          | 239               | 1.32                                  |
| Larji   | 71.54           | 245.00          | 254               | 18.17                                 |
| Khauli  | 5.35            | 245.00          | 225               | 1.31                                  |
| Patikari                                      | 7.20            | 245.00          | 225               | 1.77                                  |
| Toss  | 6.24            | 245.00          | 250               | 1.56                                  |
| Sarbari-II                                    | 3.62            | 245.00          | 295               | 1.07                                  |
| Upper Joiner                                  | 5.95            | 245.00          | 224               | 1.46                                  |
| Sumez   | 6.47            | 245.00          | 224               | 1.58                                  |
| Beas Kund                                     | 4.07            | 245.00          | 224               | 1.00                                  |
| Neogal  | 4.73            | 245.00          | 225               | 1.16                                  |
| Kurmi   | 1.43            | 245.00          | 224               | 0.35                                  |
| Jogini  | 6.77            | 245.00          | 224               | 1.66                                  |
| Nanti   | 3.16            | 245.00          | 224               | 0.77                                  |
| Tangling                                      | 0.43            | 245.00          | 295               | 0.13                                  |
| Rukti-II                                      | 0.67            | 245.00          | 295               | 0.20                                  |
| Sach  | 0.08            | 245.00          | 295               | 0.02                                  |
| Suman Sarwari                                 | 0.31            | 245.00          | 250               | 0.08                                  |
| Suman Sarwari-II                              | 0.29            | 245.00          | 224               | 0.07                                  |
| Binwa-IV                                      | 0.75            | 245.00          | 295               | 0.22                                  |
| Maujhi-II                                     | 0.91            | 245.00          | 295               | 0.27                                  |
| Aleo-II                                       | 0.32            | 245.00          | 295               | 0.09                                  |
|   | <b>905.44</b>   |                 |                   | <b>253.95</b>                         |
| <b>Approved Free Power Rate (Rounded off)</b> |                 | <b>[D ÷ A]</b>  | <b>Paise/unit</b> | <b>280</b>                            |

- 1.19 The Commission, therefore, determines the price of Free Power for FY16 at **Rs. 2.80 per unit** for purchase by HPSEBL.
- 1.20 This Order shall be effective for the year FY2015-16 i.e. till March 31, 2016, unless allowed to be continued for further period with such variations and modifications as may be ordered by the Commission.

Shimla  
Date: March 31, 2015.

Sd/-  
Subhash Chander Negi  
Chairman, HPERC