

BEFORE

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

In the matter of:

Uttarakhand Power Corporation Limited's Petition seeking Commission's approval on Average Pooled Cost of Power Purchase (APPC) for the financial year 2011-12 for fulfillment of requirement specified under UERC (Compliance of Renewable Purchase Obligation) Regulations, 2010

Coram

Shri Jag Mohan Lal Chairman

Date of Order: 13th February 2012

ORDER

These proceedings relate to the Petition No. 01 of 2010 received from Uttarakhand Power Corporation Ltd. (UPCL) seeking Commission's approval on Average Pooled Cost of Power Purchase (APPC) for the financial year 2011-12 for fulfillment of requirement specified under UERC (Compliance of Renewable Purchase Obligation) Regulations, 2010

2. UPCL in their Petition has stated that various Renewable Energy generators, in order to be eligible to apply for accreditation, in compliance of regulation 8.1 (c) of UERC(Compliance of Renewable Purchase Obligation) Regulations,2010, have offered to sell renewable energy generated by them to UPCL at a price not exceeding the pooled cost of power purchase of UPCL.
3. Regulation 8.1 of UERC (Compliance of Renewable Purchase Obligation) regulations, 2010, specifies that:

"A generating company engaged in generation of electricity from renewable energy sources shall be eligible to apply for accreditation subject to following conditions:

- a. *It has connectivity to the State network;*
- b. *It does not have any power purchase agreement for the capacity related to such generation to sell electricity at a preferential tariff determined by the Commission;*
- c. *It sells the electricity generated either (i) to the distribution licensee of the area in which the eligible entity is located, at a price not exceeding the pooled cost of power purchase (excluding transmission charges) of such distribution licensee, or (ii) to any other licensee or to an open access consumer at a mutually agreed price, or through power exchange at market determined price; and*

Explanation: For the purpose of these regulations, Pooled Cost of Purchases means the weighted average pooled price at which the distribution licensee has purchased the electricity including the cost of self generation, if any, in the previous year from all the energy suppliers long-term and short-term, but excluding those based on renewable energy sources, as the case may be.

- d. *It possesses the necessary infrastructure required to carry out energy metering and time-block wise accounting."*

4. In accordance with the above provisions of the Regulations, the APPC for the current financial year is based on the weighted average pooled price at which the distribution licensee has purchased the electricity including the cost of self generation, if any, in the **previous year** from all the energy suppliers long-term and short-term, but excluding those based on renewable energy sources and excluding transmission charges. Accordingly APPC for FY 2011-12 shall be based on the weighted average pooled price for FY 2010-11 as calculated above. UPCL has proposed the weighted average pooled price for the FY 2010-2011 as 211.25 paisa/kWh in the petition
5. Meanwhile, M/s. Bhilangana Hydro Power Limited requested the Commission to hear them before passing any order. The Commission also decided to follow the regulatory procedure as stipulated in UERC (Conduct of Business) Regulations, 2004 before approving the APPC for FY 2011-12 by an order in this behalf. Consequently, the Commission published a notice in newspapers seeking responses/comments from the stakeholders in the matter by 27.01.2012. In response to the public notice only one stakeholder namely M/s Bhilangana Hydro Power Limited (herein referred as the Company) submitted its comments by the stipulated date.

6. M/s Bhilangana Hydro Power Limited has submitted that since the accounts of UPCL for the year 2010-11 are still not audited and therefore, the APPC proposed by UPCL for FY 2011-12 based on weighted average pooled price for FY 2010-11 are provisional, hence the Commission must re-determine the APPC for FY 2011-12 at the time of final true up of ARR for FY 2010-11 and any adjustments resulting from such true up must be incorporated by UPCL in subsequent bills. In this regard, it is not denied that the data submitted by UPCL for FY 2010-11 is provisional and not yet audited. The Commission would true up the power purchase cost of UPCL for FY 2010-11 when the audited accounts are available and any variation, if any, arising there from in the APPC for FY 2011-12 would be adjusted by UPCL based on the final APPC approved by the Commission for FY 2011-12 based on the proposal of UPCL in this regard later on.
7. Further, the Company has contended that NTPC and NHPC have already filed Petitions for determination of tariff for their generating stations for the period FY 2009-10 to FY 2013-14 before CERC and their tariffs are bound to increase. UPCL has not considered the revised tariffs of most of the Central generating stations (CGS) for calculation of APPC rate. Further, the arrears of CGS pertaining to past years are being paid in FY 2011-12 hence, this impact is also not reflected in the APPC of FY 2010-11. In this regard, the Commission would like to clarify that payment of arrears on account of increase of tariffs of CGS and other such generating stations under the jurisdiction of CERC are factored in by the licensee in their power purchase expenses on cash basis, i.e. in the year in which bills are raised by the generating stations, as the amount cannot be precisely ascertained until CERC approves the tariffs and the generating stations subsequently raises the electricity bills based on methodology of recovery of these tariffs as per CERC regulations. Hence, the impact of revision of annual fixed cost and variable charges of the central sector power plants shall be considered for calculation of weighted average pooled price for the financial year in which the bills are actually raised by CGS.
8. M/s Bhilangana Hydro Power Limited has further stated that UPCL has considered the value of gross energy purchased by it for calculation of APPC, which, according to it is wrong. According to the company, UPCL should have deducted the PGCIL as well as PTCUL losses from the gross energy for arriving at the figure of State consumption for calculating APPC rate. In this regard, the Central Commission in its Order dated 01.06.2010 has clarified that the pool cost of power purchase is the weighted average

pool price at distribution licensee level and not at the state level. Therefore, the contention of the Company that the transmission losses should be factored for determining the quantum of energy purchased by UPCL stands validated by the aforesaid Order of the Central Commission.

9. M/s Bhilangana Hydro Power Limited has further contended that UPCL should not have excluded excess outward banking and U.I. Underdrawals from the total units purchased to arrive at the State Consumption. In the first instance it is to clarify that quantum of energy amounting to 35.36 MU shown as outward banking in the table shown in paragraph 3 by UPCL is in fact net gross energy received by UPCL under banking. Since the petitioner has raised the issue of adjustment of energy under banking arrangements of UPCL, the following paragraphs discuss as to how UPCL's Banking arrangements of power takes place.

9.1 Energy Sent Out Under Banking Arrangement (Outward Banking)

Energy sent out under Banking arrangement or outward Banking is not consumed within the State and therefore, it is not considered as part of the State Energy requirement for meeting the demand of the State. It is on this account that this quantum of energy is reduced from the overall quantum of power purchased by UPCL for the financial year. However, since this quantum of energy is scheduled by UPCL from out of its share in Central/other Generating Stations as bilateral share to be send directly to other States/beneficiaries, parties to the Banking Agreement, cost of this energy is included in the overall power purchase cost of UPCL for the financial year.

It may also be pertinent to mention that this overall outward Banking done by UPCL during summer & rainy season i.e. primarily from June to October (surplus months) has two components, first component comprises of the quantum of energy which UPCL is obliged, under the Banking arrangement, to return during current financial year, in response to energy received in advance from other States/beneficiaries during winter months sometimes upto March (deficit months) of preceding financial year. Other component includes, if any, energy banked by UPCL under the Agreement to other States/beneficiaries in advance during summer/rainy seasons to be returned by those States/beneficiaries in winter months. Based on the above, the

energy sent out by UPCL under banking arrangement or outward Banking works out to 310.93 MU at distribution licensee periphery for FY 2010-11.

9.2 Energy Received Under Banking (Inward Banking)

Energy received by UPCL under banking arrangement or inward Banking is received during deficit months of UPCL primarily winter months sometimes upto March. As this quantum of energy is required for meeting the demand of the State, this quantum of energy is included in the State Energy Requirement of UPCL for the State for the financial year. However, since this energy is scheduled by other States, parties to the Banking Agreement, from out of their share in the Central/other Generating Stations, as bilateral share, the cost of this energy is borne by those States and therefore it is not included in the overall power purchase cost of UPCL for the financial year.

It may be pertinent to mention that overall inward banking energy received by UPCL has two components, first component comprises of the energy received by UPCL from other States/beneficiaries during winter (deficit) months which in response to energy banked in advance or sent out by UPCL to these States/beneficiaries during summer/monsoon (surplus) months under the agreement. While the other component is the energy received from other States/beneficiaries during winter months (deficit months for the State) in Advance under the Agreement. It is amply clear that this second component received under Banking is without UPCL having done any Banking during its surplus months (summer & rainy season). However, since this energy is sent by other States to UPCL in Advance during a financial year, therefore, UPCL is obliged to ensure return of this Advanced energy during the surplus months namely summer/rainy season of next financial year and the same is covered under outward Banking para discussed hereinabove. Based on the above, the energy received by UPCL under banking arrangement or inward Banking works out to 342.38 MU at distribution licensee periphery for FY 2010-11.

From the above it can be seen that UPCL received higher quantum of energy under banking arrangement in comparison to energy sent out by UPCL under banking arrangement. Accordingly the net energy received by UPCL under Banking works out to 31.45 MU at distribution licensee periphery for FY 2010-11.

10. The quantum of energy under U.I. Underdrawl has rightly been deducted for calculation of APPC, as this quantum of energy is not received within the State for meeting the demand and therefore, it cannot be included in the overall Energy requirement of UPCL for the State for the financial year. Since, this energy is actually over drawn by other States from out of the share of UPCL in Central/other Generating Stations, therefore, the cost of this U.I. underdrawl energy is borne by UPCL and is accordingly included in the overall power purchase cost of UPCL for the financial year. Moreover, since the U.I. underdrawls have to be paid out by the States overdrawing under U.I. mechanism based on the frequency linked prices specified by CERC under the relevant Regulations, UPCL on account of such U.I. underdrawls earns revenue paid to it through Regional Energy Account maintained by NRLDC and the same works out to Rs. 54.06 crore for the financial year 2010-11. Accordingly, this revenue is adjusted in the overall power purchase cost of UPCL for the said financial year.
11. Likewise the quantum of energy traded by UPCL shall also be deducted from total units purchased by it during the financial year for calculation of APPC, as this quantum of energy is also not received within the State for meeting the demand and therefore, it cannot be included in the overall Energy requirement of UPCL for the State for the financial year. Since this energy is actually traded by UPCL from out of its share in Central/other Generating Stations, therefore, the cost of this traded energy is borne by UPCL and is accordingly, included in the overall power purchase cost of UPCL for the financial year. Moreover, this selling of power by UPCL under trading mechanism earns itself a revenue which works out to Rs. 17.14 crores as for the financial year 2010-11 on account of trading.
12. The Commission has got validated the actual payments made by UPCL for purchase of power in the FY 2010-11, by verifying all the bills raised by the generation utilities onto UPCL.
13. For arriving at the energy availability at distribution level the Commission has taken average transmission losses of PGCIL and PTCUL as 4% and 1.76% respectively.
14. Based on the above, the Commission has considered the power purchase expenses eligible for calculation of weighted average pooled price for FY 2010-11 and thereby APPC for FY 2011-12 and the same are presented in the table given below:

| Eligible Power Purchase Expenses for FY 2010-11 | | |
|--|-------------------------|------------------|
| Details | Approved by UERC | |
| | Units (MU) | Rs. Crore |
| UJVNL | 4,191.99 | 634.63 |
| NHPC | 422.69 | 119.44 |
| SJVNL | 45.41 | 13.07 |
| THDC | 95.28 | 49.4 |
| NTPC | 2,687.40 | 688.24 |
| NPCIL | 176.36 | 49.32 |
| Free Power to GOU | 717.64 | 162.84 |
| Sub Total | 8336.77 | 1716.94 |
| <i>Add: Energy received under Banking arrangement (Inward banking)</i> | 342.38 | - |
| <i>Add: UI Overdrawal</i> | 606.49 | 229.7 |
| <i>Add: Open Market Purchase</i> | 225.89 | 108.57 |
| Total Units Purchased | 9511.54 | 2055.21 |
| <i>Less: Energy sent out under Banking arrangement (Outward banking)</i> | 310.93 | - |
| <i>Less: Trading</i> | 71.91 | 17.14* |
| <i>Less: U.I. Underdrawal</i> | 217.17 | 54.06* |
| State Consumption | 8,911.52 | 1,984.01 |

* Trading and UI under drawal are revenue receipts by UPCL

15. Based on the above table, the Average Pooled Power Purchased Cost (APPC) approved by the Commission for FY 2011-12 works out to Rs. 2.23 per unit.

(Jag Mohan Lal)
Chairman