

BEFORE HIMACHAL PRADEASH ELECTRICITY REGULATORY COMMISSION

Petition No.34/2018

In the matter of:

Determination of the Average Pooled Power Purchase Cost (APPC) for the financial year 2018-19 under REC mechanism.

CORAM

**Sh. S.K.B.S. Negi
Chairman**

**Sh. Bhanu Pratap Singh
Member**

ORDER

1. This order pertains to determination of Average Pooled Power Purchase Cost (APPC) for the financial year 2018-19.
2. The distribution licensee (hereinafter referred as “HPSEB Ltd.”) has filed petition No. 34/2018 for approval of Average Pooled Power Purchase Cost (APPC) as under:-

Power Purchase Cost for FY 2018-19		
Details	MUs	Rs. Crore
THE HPSEBLStations	1510.66	191.36
BBMB Stations	589.54	23.16
NTPC Stations	1850.46	673.85
NHPC Stations	250.71	59.75
From other Stations	4267.52	950.77
Free Power and Equity Power of GoHP	545.81	142.57
From Private Micros	293.06	69.81
Forward Banking	157.71	00.00
Bilateral Purchase	00.00	00.00
PXI/IEX Purchase	90.58	32.66
Total Power Purchase Cost	9556.05	2143.90

The APPC rate proposed by the HPSEB Ltd. is 224.35 paise per unit of energy.

3. The HPSEBL’s calculations of the APPC rates for FY 2018-19 are based on the following:-
 - (i) The provisional purchase (quantum and costs) for FY 2017-18 has been considered as details of bills from some of the ISTS sources are yet to be received;
 - (ii) The arrears pertaining to past periods (paid in FY 2017-18) have been excluded as these are not recurring in nature;
 - (iii) Unscheduled Interchange(UI) Purchase has also not been included in line with the philosophy approved by the Commission in the APPC Order of FY 2012-13;

- (iv) The PGCIL/Transmission Charges/ULDC/Other Charges in line with the philosophy approved by the Commission in the APPC Order of FY 2012-13;
 - (v) The rates of own generating stations have been taken from MYT Order for 3rd control period dated 10th June, 2014;
 - (vi) The Forward (inward) Banking at zero cost has been considered as approved by the Commission in the previous Order.
 - (vii) The power from Shanan (1.00 MW) HEP has been considered as zero cost as the bills has not been accepted by the HPSEB Ltd. due to purchase rate dispute.
4. The Commission issued a public notice on 22.07.2018 in the newspapers, namely “Hindustan Times” and “Himachal Dastak”, inviting objections/suggestions on the aforesaid petition from the stakeholders. The complete text of the petition filed for approval of the APPC by the HPSEB Ltd was also made available to the stakeholders on the website of the Commission as well as on the HPSEB Ltd’s website.
5. The Commission vide letter dated 25.07.2018, requested the major stakeholders, including the Small Hydro Power Associations of the State, State Government, Directorate of Energy and HIMURJA to send their objections/suggestions as per the aforesaid public notice.
6. The following stakeholders have filed their comments/suggestions on the aforesaid petition:--
- (i) The Bonafide Himachalies Hydro Power Developers Association, Sai Bhawan, Sector-4, New Shimla-171009 (HP).
 - (ii) M/s Swadeshi Distributors LLP, 32, 28th Cross Industrial Layout BSK 2nd Stage, Bangalore- 560 070.
 - (iii) M/s Jagdambey Hydro Projects LLP, Vill Guganh, PO Sach , Tehsil & Distt Chamba, HP.
 - (iv) M/s Ginni Global Private Ltd., 2nd Floor, Shanti Chamber, 11/6B, Pusa Road, New Delhi- 110005.
 - (v) Greenko Sumez Hydro Energies Pvt. Ltd., Greenko Tejassarnika Hydro Energies Pvt. Ltd. and Gangdari Hydro Power Pvt. Ltd., D-14, Sector-1 Near SBI, New Shimla-171009(HP).
7. The consolidated objections/suggestions received from the stakeholders, alongwith item wise replies by the HPSEB Ltd. are given as under:-

Sr. No.	Objections/suggestions	HPSEBL's Reply
A.	<p>The Bonafide Himachalies Hydro Power Developers Association, Lane15, Sector-4, New Shimla-171009 , Swadeshi Distributors LLP, 32, 28th Cross Industrial Layout BSK 2nd Stage, Bangalore-560 070 and Jagdambey Hydro Projects LLP, Vill Gughanh, PO Sach , Tehsil & Distt Chamba, HP.</p>	
1	<p>That, the Explanation to the Regulation 5 (1) (c) of the CERC (Terms and Conditions for recognition and issuance of Renewable Energy Certificates for renewable energy generation) Regulations, 2010 provides as under:-</p> <p>Explanation.- for the purpose of these regulations 'Pooled Cost of Purchase' means the weighted average pooled price at which the distribution licensee has purchased the electricity including 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.</p> <p>Thus, APPC means</p> <ol style="list-style-type: none"> a) the weighted average pooled price b) of power actually purchased by distribution licensee from all source, Long and Short term c) including cost of self generation d) but excluding those based on renewable energy sources e) in the previous year <p>Since, it is the purchase price, the same has to be at the boundary of the Distribution Licensee.</p>	<p>The HPSEBL submits its point wise reply as below:</p> <p>Since HPSEBL is purchasing power at ex-bus bar rate from various sources, under long term and short term, the power purchase quantum and cost considered for APPC rate determination for FY 2018-19 has been considered at ex-bus bar only as the same is well established existing methodology being followed by the HPERC for determining the APPC rate. Further, even at the national level, the Central Electricity Regulatory Commission considers the actual power purchase cost and not the purchase cost at periphery of distribution utility for computing national level APPC rate.</p>
2	<p>That, the Petition under reference defines the Pooled Cost of Purchase as under: -</p> <p>Pooled Cost of Purchase means the weighted average pooled price at which the distribution licensee has purchased the electricity including 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.</p>	<p>No observation</p>
3	<p>That as per petition the data taken into consideration by the HPSEBL is provisional for the year 2017 - 18.</p> <p>Earlier, the HPSEBL had filed the APR Petition No. 75 of 2017 on dated 30.11.17. The APR was processed by the HPERC and its order titled "Fourth Annual Performance Review Order For 3rd MYT Control Period (FY15-FY19) & Determination of Tariff for FY19 & True-up of FY16 for Himachal Pradesh State Electricity Board Limited (HPSEBL)" (APR/True-up order 2018-19) was issued on 4.5.18. In the said order, the HPERC has reiterated the submissions of the HPSEBL in paras 4.4.1 to 4.4.23 that Power Purchase estimates of the HPSEBL for 2017-18 are based on actual supply/generation for H1 and projections for H2 for own generation etc. and estimated on the basis of average for last 3 years for other sources etc.</p> <p>In response to the objection regarding Power Purchase, the HPERC has observed in para 5.18.6 of the Order as under:-</p> <p>"5.18.6 The Commission has approved the power purchase quantum for FY19 based on the actual units procured from each station in the previous year's along with nine month actual of FY18....."</p> <p>Thus, the HPSEBL had compiled the data regarding actuals of power purchase for the first 9 months of the year 2017 - 18 by April, 2018 for which the order was issued by HPERC in May,2018.</p> <p style="text-align: center;">3</p> <p>Though, presently the months of May, June and July, 2018 have already passed but the Petition for</p>	<p>In its petition for determination of APPC for FY 2018-19, the HPSEBL had submitted that the power purchase quantum and costs for FY 2017-18 is provisional although the data provided was on actual basis only. the HPSEBL had submitted in its petition that it was provisional as at that point of time the Regional Energy Accounts (REA) data were not finalized and the Regional Energy Accounts data have been finalized in August 2018 only. Therefore, the HPSEBL has reworked the determination of APPC rate for FY 2018-19 based on revised power purchase quantum and cost for FY 2017-18 as per the finalized Regional Energy Accounts (REA) and the same has been enclosed with this reply.</p>

	<p>APPC still suggests that the data is provisional as some details of bills are yet to be received. The actuals for the last 3 months of the year 2017-18 must have had been available with the HPSEBL at the time of filing the Petition and therefore, the APPC should have been worked out on the basis of actuals for the year 2017 - 18 instead of the provisional data.</p> <p>It is, therefore, requested/suggested that the HPSEBL shall submit the actual data along with reply to these suggestions/ objections and consider the actuals of the year 2017 - 18 for determining the APPC.</p>	
4	<p>That, the CERC Regulations clearly lay down that while calculating the APPC, power purchase cost of Distribution Licensee is to be considered. This clearly implies that the power purchase cost from all sources except renewable resources is to be considered at the boundary of the Distribution Licensee.</p> <p>It is, therefore, suggested/requested that various charges paid and Transmission losses deducted for bringing the power from the generating plant up to the boundary of the HPSEBL also needs to be included in the power purchase cost on proportional basis.</p> <p>However, the Petition states that:-</p> <p>“(4) The PGCIL/Transmission Charges/ULDC/Other Charges have also been excluded in line with the philosophy approved by the Commission in APPC order of 2012-13.”</p> <p>This exclusion is contrary to the CERC Regulations. It is clear that the cost taken is at the dispatch end and does not reflect the cost of procurement at the HPSEBL periphery.</p> <p>Therefore, it is suggested that the proportionate Transmission and other Charges including SLDC charges as per para 4.7 of the Fourth APR Review Order dated 4.5.18 also needs to be included in the power purchase cost. Further, it is also suggested that the Transmission losses of CTU (Power Grid) for interstate/inter regional power and of STU (HPPTCL) be also deducted from the power purchase quantum to arrive at the quantum of power received by the HPSEBL at its periphery. These charges as per Table 52 of APR for 2017-18 are Rs (307.76-59.79=) Rs 247.97Cr for 13046.61 MUs of Energy.</p> <p>Similarly Table 41 of APR 2018-19 indicates the Interstate Transmission Losses at 3.12% and intra state losses at 12.20% for 2017-18. Mid Term Review of Transmission Licensee issued on 6.10.2017 indicate that transmission losses for HPPTCL are not being worked out separately therefore assuming intrastate transmission losses as only 3%, the Total losses work out to 6.12%. This also needs to be accounted for appropriately to arrive at the cost of power at the boundary of HPSEBL.</p> <p>The argument put forth by the HPSEBL that this methodology is being followed since 2012 does not hold good as the action is void ab initio and remains so and cannot be continued on the plea that this was not challenged/commented upon in 2012 and has now attained finality. It is requested/ suggested to set right the procedure and give justice to the generators selling power under REC mode.</p>	<p>CERC regulations and APPC rate determination orders clearly state that power purchase cost from all sources of power except renewable sources need to be considered for computation of APPC rate. However, nowhere do CERC regulations or relevant APPC orders specify that power purchase is to be considered at the boundary of distribution utility. Hence it is clear that power purchase needs to be considered as purchased by the distribution utility i.e. at ex-bus bar. Therefore, the HPSEBL had excluded PGCIL/Transmission Charges/ULDC/Other Charges from the total cost for determination of APPC Rate for FY 2017-18 as Transmission/Wheeling/Other charges will be levied additionally, if applicable, if the generator opting for APPC considers for sale of power to users within/outside State other than HPSEBL. Also, in the past APPC petitions and HPERC Orders, Transmission Charges/ULDC/Other Charges are excluded from the total cost for determining APPC rate. Furthermore, the Commission had already clarified in its earlier order dated 16th July, 2012 for the APPC rate for FY 2012-13 regarding exclusion of various charges paid and transmission losses for bringing the power from source up to the boundary of HPSEB Ltd.</p> <p>Further, even at the national level, the Central Electricity Regulatory Commission has clearly stated in its order dated 21.06.2018 for determination of national level APPC rate for FY 2018-19 that computation of APPC excludes cost of generation or procurement from renewable energy sources and transmission charges as it is of the view that only energy costs should be considered for APPC rate computation.</p> <p>The same has been reproduced below for your ready reference:</p> <p><i>“9. The total cost of power purchase considered for computation of APPC excludes cost of generation or procurement from renewable energy sources and transmission charges. Exclusion of cost of generation or procurement from renewable sources is in alignment with the objective of determining APPC, which is to ascertain the average cost of power from conventional sources of electricity. Furthermore, with a view to consider energy costs only, transmission charges have been excluded from these calculations.”</i></p>
5	<p>That, the Petition further states as under:-</p> <p>“(3) Unscheduled Interchange (UI) has also not been included in line with the philosophy approved by the</p>	<p>The HPSEBL has excluded the Unscheduled Interchange (UI) for the determination of APPC because U.I. per say is the transactions of energy</p>

	<p>Commission in APPC order for FY 2012-13.”</p> <p>This is also not as per the definition of APPC which clearly provides that all the power purchased including short term power is to be accounted for. Moreover, even if it is not being taken into consideration since the year 2012-13 it does not mean that the wrong practice is continued on the same pretext. Therefore, UI essentially being the power purchased by the Licensee needs to be accounted for as per Table 51 of APR/True-up order 2018-19.</p>	<p>which are attributable to the prevailing system conditions and the Utility has no control over it. Further, the amount paid for the energy drawl under U.I. is basically the penalty paid for the deviation from the schedule and hence cannot be termed as Power Purchase from the sources and such cannot be included in the determination of APPC.</p> <p>Additionally, the Commission in its order on APPC rate for FY 2017-18 dated 4th August, 2017, had stated that:</p> <p><i>“The Unscheduled Interchanges (U.I.) are not included in the power purchase cost for determination of APPC rate since U.I. as a system mechanism is not a platform for power purchase or sale but is transaction/system of over-drawl or under-drawl against the power scheduled from the source. The under-drawl is a situation where the purchaser has paid price of power scheduled to him to the suppliers but he has not drawn from the system and if someone-else over-draws, charges will be reimbursed as per the pricing mechanism under U.I. Similarly, the over-drawl is from the system and is beyond the power purchased from the supplier and so scheduled and therefore, it does not amount to purchase of power on long term or short term basis from energy supplier....”</i></p>
6	<p>That, the perusal of Table 51 of the APR/True-up order 2018-19 indicates that the HPSEBL has made contingency purchase of 263.09 MUs whereas in the present Petition only 92.58 MUs have been shown as purchase through Power Exchange. It is suggested that the Contingency Purchase being short term power also needs to be accounted for in full.</p>	<p>In its petition for APR of FY 2019-19 (the order for which was passed by the Commission on May 4th, 2018), the HPSEBL had submitted the revised estimate power purchase in FY 2017-18 of 263.09 MUs from Contingency and 103 MUs power from UI. However, in FY 2017-18 the HPSEBL purchased only 90.58 MUs from IEX (Contingency) and 345.49 MUs from UI and accordingly the same has been considered.</p>
7	<p>That, it is also observed from the Petition that the rates for own generating stations have been taken for 2017-18 as per APR order dated 10th June 2014. These rates have been worked out on the basis of Annual Fixed Charges for HPSEBL’s own generating stations with normative yearly escalation and Design Energy. These normative rates do not reflect the actual cost of the preceding year i.e. 2017-18. For example these rates do not take into account the Employee Cost with additional burden of 7th pay commission. This is clear violation of the CERC order which clearly provides that the actual cost of power purchase of the preceding year approved by HPERC is to be taken into consideration. This is a deliberate attempt on the part of the HPSEBL to bring down the APPC to the detriment of the Generators selling power to the HPSEBL under REC Mechanism. It is therefore suggested to take the costs as per the latest APR order.</p> <p>It is further submitted that HPSEB’s plea that the methodology is continuing for the last many years cannot be justified since the discrepancy has to be corrected as and when it comes into notice. An action which is not as per the regulations cannot be justified being in practice for last many years.</p>	<p>The Commission in its APR order for FY 2017-18 had approved the cost of own generation as per the MYT Order for Third Control Period for the HPSEBL Generation Business. Accordingly, the same cost has been considered by the HPSEBL for computing the APPC rate.</p>
8	<p>That, it is also strange to take note that the HPSEBL has considered the receipt of power from 1.00 MW Shanan Project at Zero cost on the plea that there is some purchase rate dispute and therefore, the bills have not been accepted. It is difficult to comprehend as to how this can be at zero cost. The cost of this power is given in Table 49 of APR/True-up order 2018-19. Under the given circumstances it is suggested either that rate should be considered or the generation should be excluded for the year.</p>	<p>The revised proposal submitted to the HPERC duly considers the power purchase rate and cost as approved by the Commission in the Tariff Order for FY 2017-18 dated 17.04.2017.</p>

9	<p>That, for receiving any power under banking we have to give power under banking either in advance or afterwards. The short fall or excess in banking at the end of year is carried forward. The transaction of banking is depicted as under:</p> <table border="1" data-bbox="352 389 922 633"> <thead> <tr> <th>Nature of transaction</th> <th>Quantum (MU)</th> <th>Rate (Say Rs 3/- per unit)</th> <th>Amount (Rs Lakh)</th> </tr> </thead> <tbody> <tr> <td>Purchase in Summer</td> <td>(+) 157.71+ (A)</td> <td>3/-</td> <td>473.13+3A</td> </tr> <tr> <td>Banking (outward) in winter</td> <td>(-) A</td> <td>3/-</td> <td>(-) 3A</td> </tr> <tr> <td>Net Result</td> <td>(+) 157.71</td> <td>3/-</td> <td>473.13</td> </tr> </tbody> </table> <p>Thus as is evident, the power has been treated as purchased at the cost at which it was purchased when banked and therefore, its cost cannot be zero.</p> <p>It is, therefore, suggested/requested that this inclusion of inward quantum of banking (157.71 MUs) and generation of Shanan (1.00 MW) (5.26 MUs) should not be considered in the calculations.</p>	Nature of transaction	Quantum (MU)	Rate (Say Rs 3/- per unit)	Amount (Rs Lakh)	Purchase in Summer	(+) 157.71+ (A)	3/-	473.13+3A	Banking (outward) in winter	(-) A	3/-	(-) 3A	Net Result	(+) 157.71	3/-	473.13	<p>The HPSEBL received 153.55 MUs (at Himachal Pradesh Periphery and 157.71 MUs at Northern Region Periphery) of power under Forward Banking in FY 2017-18. The HPSEBL has considered power under Forward Banking at zero cost in line with the methodology approved by the HPERC. The HPERC has also considered Banking power at zero cost while computing the APPC rate every year in the past.</p> <p>Further, the HPERC had stated the following in its Order on APPC for FY 2012-13 dated 16.07.2012:</p> <p><i>“13. Banking has three components i.e. ... (ii) certain quantum of energy is borrowed from other Discoms during the year which is to be returned in the subsequent year is known as forward banking under purchase category....”</i></p> <p>Therefore such power received under Forward Banking in a particular year is at zero cost in that year and shall be returned in the subsequent year for which such additional power shall be purchased and its cost will be accounted for in the total power purchase from various generators in the next year. Therefore, consideration of such power under Forward Banking at some cost in FY 2017-18 would lead to double accounting and hence should be considered at zero cost.</p> <p>Furthermore, the HPERC had also stated that Banking Power shall be considered at Zero cost in its Order on APPC for FY 2012-13 dated 16.07.2012. The same has been reproduced below for your ready reference:</p> <p><i>“13. ... Since there is no criteria for determination of rate and as prudent practice the Commission had taken such banking sale and purchase at zero cost, this quantum of energy shall be treated as additional purchase at zero const.”</i></p>
Nature of transaction	Quantum (MU)	Rate (Say Rs 3/- per unit)	Amount (Rs Lakh)															
Purchase in Summer	(+) 157.71+ (A)	3/-	473.13+3A															
Banking (outward) in winter	(-) A	3/-	(-) 3A															
Net Result	(+) 157.71	3/-	473.13															
10	<p>That, in view of the above suggestions/objections, the APPC has been worked out as per the figures and costs taken in the APR/True-up order 2018-19.</p> <p>As is evident from Table 41 of APR, the quantum of Central Generating stations etc. is gross and Inter State /Intra state losses are to be deducted for working out the quantum at the boundary of HPSEBL. These have been applied as 3.12% for interstate power (7416.79 MUs) and additional 3% for quantum of power received by HPPTCL for delivery to HPSEBL.</p> <p>As per our calculations the APPC works out to 271.46 Paisa per unit against the 224.35 paisa worked out in the Petition. Thus, the APPC has been worked out on a lower side by at least 47.11 Paisa per unit which may further increase if other issues/points raised in the above suggestions/objections are also taken into consideration.</p>	<p>The HPSEBL has re-computed the APPC rate for FY 2018-19 based on the Regional Energy Accounts finalized in August 2018 and the APPC rate for FY 2018-19 has been revised from Rs. 224.35 paise per unit to Rs. 224.52 paise per unit.</p>																
11	<p>That, the arrears pertaining to the year 2017-18 for which bills have been paid or received and being processed for payments up till 20th of August, 2018 needs to be included in the power purchase cost to arrive at the realistic APPC. Since the data is not available, this cannot be quantified by us at this stage. Moreover, if the same is also taken into consideration it will further increase the APPC.</p>	<p>The HPSEBL had submitted the petition for APPC rate determination for FY 2018-19 based on the methodology approved by the Commission, wherein past year arrears of power purchase cost are to be excluded from the APPC rate computation as such costs are not recurring in nature. Therefore, the HPSEBL excluded the arrears pertaining to past periods (paid in FY 2017-18) in the APPC rate determination for FY 2018-19.</p>																

B	Ginni Global Private Ltd., 2nd Floor, Shanti Chamber, 11/6B, Pusa Road, New Delhi- 110005	
1.	<p>The CERC Regulations clearly lay down that while calculating the APPC, power purchase cost of Distribution Licensee is to be considered. This clearly implies that the power purchase cost from all sources except renewable resources is to be considered at the boundary of the Distribution Licensee.</p> <p>It is, therefore, suggested/requested that various charges paid and Transmission losses deducted for bringing the power from the generating plant up to the boundary of the HPSEBL also needs to be included in the power purchase cost on proportional basis.</p> <p>However, the Petition states that:-</p> <p>“The PGCIL/Transmission Charges/ULDC/Other Charges have also been excluded in line with the philosophy approved by the Commission in APPC order of 2012-13.”</p> <p>This exclusion is contrary to the CERC Regulations. It is clear that the cost taken is at the dispatch end and does not reflect the cost of procurement at the HPSEBL periphery.</p> <p>Thus proportionate Transmission and other Charges including SLDC charges as per para 4.7 of the Fourth APR Review Order dated 4.5.18 also needs to be included in the power purchase cost. Further, it is also suggested that the Transmission losses of CTU (Power Grid) for interstate/inter regional power and of STU (HPPTCL) be also deducted from the power purchase quantum to arrive at the quantum of power received by the HPSEBL at its periphery. These charges as per Table 52 of APR for 2017-18 are Rs (307.76-59.79)= Rs 247.97Cr for 13046.61 MUs of Energy. Therefore for 9556.05 MU, the proportionate cost would be Rs. 181.63 Cr. This would increase the APPC from 224.35 to 243.56(+ 19.21) paisa per unit (2143.90+181.63)/9556.05).</p> <p>Similarly Table 41 of APR 2018-19 indicates the Interstate Transmission Losses at 3.12% and intra state losses at 12.20% for 2017-18. Mid Term Review of Transmission Licensee issued on 6.10.2017 indicate that transmission losses for HPPTCL are not being worked out separately therefore assuming intrastate transmission losses as only 3%, the Total losses work out to 6.12%. The total power thro CTU and HPPTCL networks works out to (NTPC 1850.46+NHPC 250.71+others 4267.52)= 6368.69 MUs and losses work out to 389.76 MUs. The increase in APPC on this account would be from 224.35 to 233.90(+9.55) paisa per unit (2143.90/(9556.05-389.76).</p> <p>The argument put forth by the HPSEBL that this methodology is being followed since 2012 does not hold good as the action is void ab initio and remains so and cannot be continued on the plea that this was not challenged/commented upon in 2012 and has now attained finality. It is requested/ suggested to set right the procedure and give justice to the generators selling power under REC mode.</p>	<p>CERC regulations and APPC rate determination orders clearly state that power purchase cost from all sources of power except renewable sources need to be considered for computation of APPC rate. However, nowhere do CERC regulations or relevant APPC orders specify that power purchase is to be considered at the boundary of distribution utility. Hence it is clear that power purchase needs to be considered as purchased by the distribution utility i.e. at ex-bus bar. Therefore, the HPSEBL had excluded PGCIL/Transmission Charges/ ULDC/Other Charges from the total cost for determination of APPC Rate for FY 2017-18 as Transmission/Wheeling/Other charges will be levied additionally, if applicable, if the generator opting for APPC considers for sale of power to users within/ outside State other than HPSEBL. Also, in the past APPC petitions and HPERC Orders, Transmission Charges/ULDC/Other Charges are excluded from the total cost for determining APPC rate. Furthermore, the Commission had already clarified in its earlier order dated 16th July, 2012 for the APPC rate for FY 2012-13 regarding exclusion of various charges paid and transmission losses for bringing the power from source up to the boundary of HPSEB Ltd.</p> <p>Further, even at the national level, the Central Electricity Regulatory Commission has clearly stated in its order dated 21.06.2018 for determination of national level APPC rate for FY 2018-19 that computation of APPC excludes cost of generation or procurement from renewable energy sources and transmission charges as it is of the view that only energy costs should be considered for APPC rate computation.</p> <p>The same has been reproduced below for your ready reference:</p> <p><i>“9. The total cost of power purchase considered for computation of APPC excludes cost of generation or procurement from renewable energy sources and transmission charges. Exclusion of cost of generation or procurement from renewable sources is in alignment with the objective of determining APPC, which is to ascertain the average cost of power from conventional sources of electricity. Furthermore, with a view to consider energy costs only, transmission charges have been excluded from these calculations.”</i></p> <p>CERC regulations and APPC rate determination orders clearly state that power purchase cost from all sources of power except renewable sources need to be considered for computation of APPC rate. However, nowhere do CERC regulations or relevant APPC orders specify that power purchase is to be considered at the boundary of distribution utility. Hence it is clear that power purchase needs to be considered as purchased by the distribution utility i.e. at ex-bus bar. Therefore, the HPSEBL had excluded PGCIL/Transmission Charges/ ULDC/Other Charges from the total cost for determination of APPC Rate for FY 2017-18 as Transmission/Wheeling/Other charges will be levied additionally, if applicable, if the generator opting for APPC considers for sale of power to users within/outside State other than HPSEBL. Also, in the past APPC petitions and HPERC Orders, Transmission Charges/ULDC/Other</p>

		<p>Charges are excluded from the total cost for determining APPC rate. Furthermore, the Commission had already clarified in its earlier order dated 16th July, 2012 for the APPC rate for FY 2012-13 regarding exclusion of various charges paid and transmission losses for bringing the power from source up to the boundary of HPSEB Ltd.</p> <p>Further, even at the national level, the Central Electricity Regulatory Commission has clearly stated in its order dated 21.06.2018 for determination of national level APPC rate for FY 2018-19 that computation of APPC excludes cost of generation or procurement from renewable energy sources and transmission charges as it is of the view that only energy costs should be considered for APPC rate computation.</p> <p>The same has been reproduced below for your ready reference:</p> <p><i>“9. The total cost of power purchase considered for computation of APPC excludes cost of generation or procurement from renewable energy sources and transmission charges. Exclusion of cost of generation or procurement from renewable sources is in alignment with the objective of determining APPC, which is to ascertain the average cost of power from conventional sources of electricity. Furthermore, with a view to consider energy costs only, transmission charges have been excluded from these calculations.”</i></p>																									
2.	<p>It is also strange to take note that the HPSEBL has considered the receipt of power from 1.00 MW Shanan Project at Zero cost. We are not able to comprehend as to how these can be at zero cost. For receiving any power under banking we have to give power under banking either in advance or afterwards. The transaction of banking is depicted as under:-</p> <table border="1" data-bbox="352 1249 922 1550"> <thead> <tr> <th>Nature of transaction</th> <th>Treatment in APPC</th> <th>Quantum (MU)</th> <th>Rate (Say Rs 3/- per unit)</th> <th>Amount (Rs Lakh)</th> </tr> </thead> <tbody> <tr> <td>Purchase in Summer</td> <td>Included</td> <td>(+) 157.71</td> <td>3/-</td> <td>4731.3</td> </tr> <tr> <td>Banking (outward) in winter</td> <td>Not shown</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Banking (inward) in winter</td> <td>Included</td> <td>(+) 157.71</td> <td>Zero Cost</td> <td>0000.0</td> </tr> <tr> <td>Net Result</td> <td></td> <td>315.42</td> <td>1.50</td> <td>4731.3</td> </tr> </tbody> </table> <p>Thus as is evident, the power has been treated as purchase for two times result in dragging the APPC downwards.</p> <p>Further, the generation of Shanan PH(1.00 MW) has been included but the cost has not been taken on the plea that there is some dispute on the billing and payment is not being made. Under the circumstances the generation should also be excluded.</p> <p>It is therefore requested that this inclusion of inward quantum of banking (157.71 MUs) and generations of Shanan (1.00 MW) (5.26 MUs) should not be considered in the calculations. This alone would increase the APPC from Rs. 224.35 to 228.24 paise per unit (Rs. 2143.90 Cr/(9556.05 MU-157.71 MU-5.26 MU) i.e. by +3.89 paise unit.</p>	Nature of transaction	Treatment in APPC	Quantum (MU)	Rate (Say Rs 3/- per unit)	Amount (Rs Lakh)	Purchase in Summer	Included	(+) 157.71	3/-	4731.3	Banking (outward) in winter	Not shown				Banking (inward) in winter	Included	(+) 157.71	Zero Cost	0000.0	Net Result		315.42	1.50	4731.3	<p>The HPSEBL received 153.55 MUs (at Himachal Pradesh Periphery and 157.71 MUs at Northern Region Periphery) of power under Forward Banking in FY 2017-18. The HPSEBL has considered power under Forward Banking at zero cost in line with the methodology approved by the HPERC. The HPERC has also considered Banking power at zero cost while computing the APPC rate every year in the past.</p> <p>Further, the HPERC had stated the following in its Order on APPC for FY 2012-13 dated 16.07.2012:</p> <p><i>“13. Banking has three components i.e. ... (ii) certain quantum of energy is borrowed from other Discoms during the year which is to be returned in the subsequent year is known as forward banking under purchase category....”</i></p> <p>Therefore such power received under Forward Banking in a particular year is at zero cost in that year and shall be returned in the subsequent year for which such additional power shall be purchased and its cost will be accounted for in the total power purchase from various generators in the next year. Therefore, consideration of such power under Forward Banking at some cost in FY 2017-18 would lead to double accounting and hence should be considered at zero cost.</p> <p>Furthermore, the HPERC had also stated that Banking Power shall be considered at Zero cost in its Order on APPC for FY 2012-13 dated 16.07.2012. The same has been reproduced below for your ready reference:</p> <p><i>“13. ... Since there is no criteria for determination of rate and as prudent practice the Commission had taken such banking sale and purchase at zero cost, this quantum of energy shall be treated as additional purchase at zero const.”</i></p>
Nature of transaction	Treatment in APPC	Quantum (MU)	Rate (Say Rs 3/- per unit)	Amount (Rs Lakh)																							
Purchase in Summer	Included	(+) 157.71	3/-	4731.3																							
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Banking (inward) in winter	Included	(+) 157.71	Zero Cost	0000.0																							
Net Result		315.42	1.50	4731.3																							

3.	In view of the above, the APPC has been worked out on a lower side by at least $(19.21+9.55+3.89)= 32.65$ paise per unit which may further increase if other points raised in the above comments are also taken into consideration.	The HPSEBL has re-computed the APPC rate for FY 2018-19 based on the Regional Energy Accounts finalized in August 2018 and the APPC rate for FY 2018-19 has been revised from Rs. 224.35 paise per unit to Rs. 224.52 paise per unit. The detailed working of the revised APPC rate computation for FY 2018-19 has been enclosed with this reply.
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8. The HPSEB Ltd. vide MA No. 115/2018 has also submitted the following with revised the APPC table:-

- (i) The Northern Regional Power Committee has finalized the Regional Energy Accounts for FY 2017-18 in August 18. Accordingly, the HPSEB Ltd. is revising the proposal for the Average Pooled Power Purchase as earlier computed APPC was based on provisional energy accounts.
- (ii) Further, the HPSEB Ltd. is considering rate of power from Shanan (1.00 MW) as approved by the Commission in the Tariff Order for FY 18 dated April 17, 2017 although the HPSEB Ltd. is not accepting bills against Shanan due to the ongoing dispute on the power purchase rate.
- (iii) Further, the power quantum under Forward Banking in FY 2017-18 has been revised to 153.55 MUs (Forward Banking at Himachal Pradesh State periphery). Earlier, the HPSEB Ltd. had inadvertently considered 157.71 MUs under Forward Banking which was Forward Banking at Northern Region periphery. The HPSEB Ltd. requests the Commission to condone this inadvertent error and accept the revised submission.
- (iv) The GoHP Free Power in the table excludes the power from RE sources.

Power Purchase Cost for FY 2018-19		
Details	MUs	Rs. Crore
THE HPSEBL Stations	1510.66	191.36
BBMB Stations	589.54	28.62
NTPC Stations	1848.15	673.85
NHPC Stations	249.18	59.75
From other Stations	4275.17	950.98
Free Power and Equity Power of GoHP	427.86	111.96
From Private Micros	291.14	69.34
Forward Banking	153.55	00.00
Bilateral Purchase	00.00	00.00
PXI/IEX Purchase	90.58	32.66
Total Power Purchase Cost	9435.82	2118.53

The APPC revised rate proposed by the HPSEB Ltd. is 224.52 paise per unit of energy.

9. The matter had been listed for hearing on 06.10.2018, the stakeholders i.e. Directorate of Energy, The Bonafide Himachalies Hydro Power Developers

Association, M/s Jagdambey Hydro Projects and Consumers Representative including petitioner i.e. HPSEB Ltd. attended the hearing.

10. The Bonafide Himachalies Hydro Power Developers Association, M/s Swadeshi Distributors & M/s Jagdambey Hydro Projects and M/s Ginni Global Pvt. Ltd. further made the following submissions on the reply of the HPSEB Ltd. and the same were also reiterated in the hearing by the representative(s) of stakeholder(s):-

- (A) (i) As far as the purchase price of power is concerned, the stakeholder(s) again requested the Commission to consider the cost of power purchase at the boundary of the licensee. It is contended that the cost has to be at the boundary of the State so that all the power purchase is at an equal footing. Since the HPSEB Ltd. is bringing power from CGS to its boundary by paying the CTU charges and losses, therefore, there is no weight in the argument of licensee that power purchase cost is to be taken at the generator bus bar. The stakeholder(s) further submitted that for calculation of Additional Surcharge, the CTU charges and losses are levied on Open Access Consumers, however the same are not considered in the APPC calculations.

The National Level APPC is being worked out by the CERC for the purpose of determination of charges of Deviation settlement of regional entities. A generator connected to the CTU grid is akin to a generator in the State connected to the STU. Exclusion of Transmission charges is justified for an entity connected to the CTU as State transmission charges are not to be included in the National APPC for a regional entity. However, the same methodology being justified here by the HPSEB Ltd. is clearly wrong.

The CERC is determining the National Level APPC for deviation settlement charges whereas here the APPC is being determined as tariff payable to a generator for power sold to the HPSEB Ltd. in the State. So these two are different purposes and are not identical.

The HPSEB Ltd. has itself stated in reply that the amount paid for energy drawal under UI is basically the penalty paid for deviation from the schedule and hence cannot be termed as power purchase from the sources and such cannot be included in determination of the APPC. Thus quoting the methodology adopted by the Central Commission for determining the National Level APPC is wrong here as it is also being determined for deviation only under Deviation settlement for solar and wind projects.

- (ii) As far as considering the rates for the HPSEBL's own generating station as per the MYT order dated 10th June, 2014 is concerned, the

stakeholder(s) have suggested to take the costs as per the latest APR order.

- (iii) In the matter of considering cost of banking power at zero rate, stakeholder(s) contended that there cannot be any power purchase at zero cost. Since the HPSEB Ltd. bears the CTU charges on one side of the transactions. Therefore, such costs also need to be added to banking transactions.
 - (iii) It is reiterated that the arrears pertaining to FY 2017-18 for which bills have been paid or received and being processed for payment need to be included in the power purchase cost to arrive at the realistic APPC. Excluding these costs is an attempt to lower the APPC artificially to deny the generators their rightful due and it cannot be justified that these are not being considered in the past or are not recurring in nature.
- B. M/s Greenko Sumez Hydro Energies Pvt. Ltd., M/s Greenko Tejassarnika Hydro Energies Pvt. Ltd. and M/s Gangdari Hydro Power Pvt. again made the following submissions on the reply of the HPSEB Land the same were reiterated in the hearing by the representative(s) of stakeholder(s):-
- (i) It is suggested to consider the quantum and costs from the ISTS sources as being submitted by the HPSEB Ltd. during true up filing and revise the APPC Costs so as to reflect the true costs which is not happening so far.
 - (ii) It is not clear whether the quantum received as Inward/Forward Banking more than quantum of contra-banking is on returnable basis or not. If it is on returnable basis then there is no need for inclusion of this quantum in the total consumption as this will be returned back as per the arrangement. If it is on non-returnable basis then there is a need for attaching cost component to this quantum as this value continues to increase year to year and may have impact on the final cost. It is suggested that the previous APPC cost be used for this quantum so as to obtain a fair value.
- C. Consumer Representative has made the following submission during hearing :-
- (i) The HPSEBL's petition and methodology of calculating the APPC appears to be rational and in tune with the Orders passed on the matter by Central Electricity Regulatory Commission dated 21.06.2018 for determination of the National level APPC rates for FY 2018-19 and also by this Commission in the past. The Central Electricity Regulatory Commission as well as the previous Orders of the HPERC relating to the APPC determination clearly state that power purchase cost from all sources of power except renewable

sources need to be considered for computing the APPC rate. However, the concerned Regulations/Orders nowhere specify that power purchase is to be considered at boundary of distribution utility. Thus the objections/comments on this account appears to be misplaced and contrary to the Orders/Regulations *ibid*.

- (ii) The Central Commission in its recent order dated 21.06.2018 has stated that computation of the APPC excludes the cost of procurement from renewable energy sources and transmission charges as it is of the view that only energy costs should be considered for the APPC rate computation.
- (iii) The revised proposal of the HPSEB Ltd. duly considers the power purchase rates and cost as approved by the HPERC in the Tariff Order for FY 2017-18 dated 17.04.2017.
- (iv) It is also clarified by HPSEB Ltd. in its reply to objections raised that it has re-computed the APPC rates for FY 2018-19 based on the regional energy accounts finalized in August, 2018 and the APPC rate for FY 2018-19 has been revised from Rs. 224.35 paise per unit to Rs. 224.52 paise per unit.
- (v) The petition filed by the HPSEB Ltd. for the APPC rate determination for FY 2018-19 is based on the methodology approved by the Commission which rightly excludes the past year(s) arrears of power purchase cost from the APPC rate computation, as such costs are not recurring in nature. Moreover, such costs can escalate the APPC rates considerably which may put additional burden on consumers, if passed on to them.

D. Directorate of Energy has made the following submission during hearing :-

- (i) That as per the CERC REC Regulations, the weighted average pool price is to be determined by excluding contribution from the Renewable Energy Sources. It is submitted that the methodology adopted by the HPSEB Ltd. has not followed the same. If the contribution from Renewable Energy sources is excluded, the same needs to be mentioned in the petition. The APPC calculations has included the Renewable Energy Sources, as Power Purchase cost of the GoHP (Free Power), as Private Micro (upto 5.00 MW) & Private Micro (above 5.00 MW). This aspect is required to be considered.
- (ii) That there is a mismatch of the GoHP free power in the HPSEB Ltd. own generating stations (i.e. Larji, Baner, Gaj, Ghanvi-I, Ghanvi-II). As per record, the total the GoHP free power from these HEP's should be 96.63 MU instead of 98.49 MU, as considered by petitioner in the present petition.

11. The issues raised by the stakeholders elaborated in para 10 above have been addressed by the petitioner i.e. HPSEB Ltd. in its revised petition and the Commission has discussed the same in succeeding paragraph of this Order.
12. In order to promote generation from renewable sources, the Central Electricity Regulatory Commission framed regulations and issued orders for giving effect to the Renewable Energy Certificates (REC) framework. The Himachal Pradesh Electricity Regulatory Commission (hereinafter referred as the Commission) has also framed the Himachal Pradesh Electricity Regulatory Commission (Renewable Power Purchase Obligations and its Compliance) Regulations, 2010 in line with the Central Electricity Regulatory Commission (Terms and Conditions for Recognition and Issuance of Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2010, which specify that generation from renewal sources will be eligible for REC if it, inter-alia:

“sells the electricity generated either (i) to the distribution licensee of the area in which the eligible entity is located, at the pooled cost of power purchase of such distribution licensee as determined by the Appropriate Commission (ii) to any other licensee or to an open access consumer at a mutually agreed price, or through power exchange at market determined price.

Explanation:- “For the purpose of these regulations, ‘Pooled Cost of Purchase’ means the weighted average pooled price at which the distribution licensee has purchased the electricity including 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.”

13. The issue of APPC has been discussed elaborately by the Commission in its previous Orders while determining APPC i.e. in the Order dated 16.07.2012 for the year 2012-13 in petition No. 137/2011 and Order dated 22.06.2013 for the year 2013-14 in the petition No. 63/2013. In these Orders, the Commission adopted the following principles:-
 - (i) The average pooled cost of purchase of power has three components relevant to the present context i.e. it has to be weighted average pooled price of power purchased; it has to be of the previous year

and further that it has to be from the energy suppliers, both long term and short term;

- (ii) The quantum and rate of power, purchased from the State Govt., out of its free power share shall be taken into account for pooled cost of purchase;
- (iii) The unscheduled interchanges (U.I.) are not included in the power purchase cost. U.I. as a system mechanism is not a platform for power purchase or sale but is transaction/system of over-drawl or under-drawl against the power scheduled from the source. The under-drawl is a situation where the purchaser has paid price of power scheduled to him to the suppliers but he has not drawn from the system and if someone-else over-draws, charges will be reimbursed as per the pricing mechanism under U.I. Similarly, the over-drawl is from the system and is beyond the power purchased from the supplier and so scheduled and therefore, it does not amount to purchase of power on long term or short term basis from energy supplier. It can be argued that quantum of under-drawl should be reduced from the total power purchase which can further lead to issues of pricing of under-drawls as to whether such price should be on the principles of costly power at the margin in the merit order purchase. Therefore, U.I. over-drawls cannot be treated as power purchase for the purpose of pooled cost of purchase. Similarly PGCIL/Transmission/ULDC charges etc. are not applicable when power is being supplied to the local Discom at the APPC;
- (iv) Total power purchased is disposed off/utilized by way of sale, within and outside State and by way of banking. Power purchase only is relevant for APPC and disposal/utilization of power is not relevant to the context of determination of the APPC;
- (v) Where the outward banking (banking sale) is from out of power purchased during the year from energy suppliers (long term and short term), its cost is already paid. Therefore, if the same quantum, or part of such quantum, is received as inward banking (contra banking purchase), such quantum and price should not be included over and above the quantum or price already taken into account, out of which such power has been banked. The Commission had taken cost of banking power, whether purchase or sale, as zero, because, in the absence of firm cost of such power, any notional cost leads to distorted results in profit/loss in the balance sheet. Banking arrangement, as a practice in the State, is rolling arrangement involving contra, forward and return banking with various Discoms in the region. There is no criteria for determination of rate and as a prudent practice, the Commission had taken such banking sale and purchase at zero cost. Therefore, any quantum of energy received

during the year in excess of purchased energy banked in the same year, under banking arrangement, shall be treated as additional quantum of power purchase, but at zero cost. Hence, only the quantum of inward/forward banking (banking purchase) in excess of quantum of contra-banking, in the previous year will be taken as additional power purchase at zero cost;

- (vi) The arrears pertaining to past periods will be excluded as these are not recurring in nature;
- (vii) The PGCIL/Transmission charges/ULDC/other charges will not be included;
- (viii) Purchases under REC framework on the APPC will be included.

The APPC rates have been worked out for the previous financial years as per the above principles.

14. The principles and methodologies applied in calculating the APPC for years 2012-13 and 2013-14 have attained finality, and therefore, the Commission finds it appropriate to apply the same for computation of the APPC under this Order.
15. Accordingly, the Commission, after duly considering the submissions made by the HPSEB Ltd., various stakeholders and relevant power purchase expenses of the FY 2017-18, eligible for calculation of weighted average pooled price for FY 2018-19, submitted in the Petition No. 34/2018, determines the rate of the APPC for FY-2018-19 as under:-

Power Purchase Cost for FY 2018-19		
Details	MUs	Rs. Crore
THE HPSEBLStations	1510.66	191.36
BBMB Stations	589.54	28.62
NTPC Stations	1848.15	673.85
NHPC Stations	249.18	59.75
From other Stations	4275.17	950.98
Free Power and Equity Power of GoHP	427.86	111.96
From Private Micros	291.14	69.34
Forward Banking	153.55	00.00
Bilateral Purchase	00.00	00.00
PXI/IEX Purchase	90.58	32.66
Total Power Purchase Cost	9435.82	2118.53

The computed APPC rate is Rs. 225 paise per unit of energy.

Based on the above, the APPC for FY 2018-19 works out to Rs. 225 paise per unit of energy and is so approved by the Commission. These rates are firm and final and will not be trued up.

16. This Order shall be applicable for the FY 2018-19 and shall continue for further period with such variation or modification as may be ordered by the Commission for the next financial year.
17. Before parting with this Order, the Commission would like to record that despite of its best efforts, the Commission could not issue this Order immediately after the date on which the matter was last heard and Order were reserved because the details and data submitted by the HPSEB Ltd. required further examination with reference data available from the relevant sources.

This petition is disposed of in terms of the above.

Sd/-
(Bhanu Partap Singh)
Member

Sd/-
(S.K.B.S. Negi)
Chairman

Place: Shimla
Dated: 26th November, 2018