

**IN THE HARYANA ELECTRICITY REGULATORY COMMISSION  
BAYS No. 33-36, SECTOR-4, PANCHKULA- 134112, HARYANA**

**CASE No. HERC/PRO- 21 of 2012 &  
CASE No. HERC / PRO - 22 of 2012**

**Date of Hearing: 28.05.2014  
Date of Order: 28.07.2014**

**IN THE MATTER OF:**

Application filed by Puri Oil Mills Ltd. for determination of Tariff for Micro Hydel Project(s) for the control period commencing FY 2012-13 under Sections 86(a) and 94(f) of the Electricity Act, 2003 read with provisions of the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff for Renewable Energy sources, Renewable Purchase Obligations and Renewable Energy Certificates) Regulations, 2010.

**... Petitioner**

Versus

Haryana Power Purchase Centre, Shakti Bhavan, Sector -6, Panchkula & Others.

**... Respondent**

**On behalf of the Petitioner**

Shri R.K. Jain, Advisor Power / Counsel

**On behalf of the Respondents:**

Shri Nitin Goyal, Advocate,  
Shri U.K.Agarwal, SE, HPPC  
Shri P.K. Yadav, CSE/HAREDA

**Quorum:**

**Shri R.N. Prasher**  
**Shri Jagjeet Singh**  
**Shri M.S. Puri**

**Chairman**  
**Member**  
**Member**

**ORDER**

**Brief Background of the Case:**

1. The Petitioner (Puri Oil Miis Ltd. New Delhi) had submitted that this Commission vide order dated 25/01/2012 in Case No. HERC/PRO -12 of 2011 and Case No. HERC/PRO – 20 of 2011 with regard to generic tariff for mini hydro projects in Haryana observed as under:-

*“The commission observes that the tariff for small hydro projects in Haryana determined vide order dated 15th May, 2007 currently in vogue, has been estimated on the basis of Rs. 10.2 Crore MW and CUF of 70% given the small hydro projects in Haryana are basically canal based having very low head and require substantial civil work. Where the benchmark capital cost as per CERC Regulations adopted by HERC is substantially lower than the capital cost considered by commission while determining generic tariff in 2007. Thus given the asymmetry the commission is of the considered view that the potential for hydro power projects in Haryana is low and there could be significant variation in project cost as well as CUF at different locations. Hence the commission would decide/ review the tariff for small hydro projects in Haryana on a case to basis after obtaining data on water flow as well as capital cost for the projects already commissioned in Haryana”.*

In line with the above order of the Commission, the Petitioner filed case specific details of their two micro hydro power plants of 1.4 MW each at Khukhani and Mussapur in Yamunanagar, Haryana, for determination of tariff on a case to case basis for the control period commencing FY 2012 – 13 applicable w.e.f. 1.04.2012 as the tariff determined by this Commission vide order dated 15.05.2007 in the matter of Renewable energy Tariff & Other issues for the control period FY 2007-08 to FY 2011-12 was applicable only up to 31.03.2012 with annual escalation rate of 1.5% over the base year (FY 2007-08) tariff of Rs. 3.67 per kWh.

**The case specific details for revision of tariff, provided by the Petitioner, for their**

**two power plants are as under:**

Capital Cost for Khukhni power plant of 1.4 MW commissioned on 30.09.2011, on a completed cost basis, has been claimed as 17.49 Crore i.e. Rs. 12.49 Crore / MW and the same for Mussapur 1.4 MW power plant, the capital cost on a completed cost basis, has been claimed as 16.30 Crore i.e. Rs. 11.64 Crore / MW as against Rs. 10.25 Crore/MW considered by the Commission for the purpose of arriving at generic tariff as approved in the order dated 15.05.2007.

Debt: Equity ratio, interest cost, depreciation and Return on Equity has been claimed by the Petitioner as per HERC RE Regulations, 2010 and Generic Tariff order of the Commission dated 03.09.2012.

O&M expenses have been claimed based on the actual expenses incurred during the period ending 30.03.2012 including the additional conditions imposed by the Irrigation Department to maintain and upkeep the canal 2 KM upstream and 2 KM downstream. The Petitioner has prayed for being allowed Rs. 38.16 lakh/MW for Mussapur and Rs. 44.50 Lakh / MW for Khukhani hydro power project as against HERC norms of Rs. 17 Lakh / MW (for the base year) with annual escalation of 5.72%.

CUF/PLF has been proposed at 56% and auxiliary consumption at 1% in accordance with HERC norms as against 70% and 0.5% respectively assumed in HERC tariff order dated 15.05.2007.

Discounting factor for arriving at levellised tariff has been proposed at 16.05% in line with Generic Tariff order of HERC dated 25.01.2012.

In addition to the above, the Petitioner has sought waiver of 2% wheeling charges as done by this Commission for the solar power projects under JNNSM scheme. The Petitioner has also prayed to be allowed deemed generation charges due to loss of generation because of grid failure as allowed by this Commission to the solar power projects in Haryana. They have also requested the Commission, in line with the APTEL's judgment, to lay down the guidelines for allowing third party sale and facilitate trading in Renewable Energy Certificates.

2. In order to have more clarity in the matter the Commission considered it appropriate to seek the view of other necessary parties including the Respondent i.e. Haryana Irrigation Department, HPPC and HAREDA. The reply filed by the parties, in brief, is as under:

3. **Reply filed by the Irrigation Department:**

The Executive Engineer Indri Water Service Division, Haryana Irrigation Department, Karnal, Shri Ravinder Pal submitted that the Petition is not maintainable as the Petitioner has concealed material facts from this Commission. It was further submitted that the Petitioner has concealed the Interim Inquiry Report which clearly depicts that the Petitioner did not construct the designed slopes on the left and right side banks as per the approved design. It was further submitted that the said Report also points out the fact that the Petitioner Company had constructed a ditch in which the sewerage water was being collected which was finally pumped out into the canal. The continuous leakages in the canal resulted in undermining of the bank which caused breach in the canal.

Additionally, it was submitted that as per the MOU dated 27.11. 2006 the Petitioner company was solely responsible for the safety of the canal in the reach of 19.916 K.M. to 16.836 K.M. (approximately 3 KMs). The breach of canal on 15.12.2011 had occurred within the premises of the company due to the use of sub – standard material for the construction of the project and on account of negligence shown by the Petitioner. It was further stated that the claim of the Petitioner that breach occurred due to leakage from the joint raising the water level from 3250 to 4500 CS is totally wrong and denied. Further, it was submitted that the DPR received in the Irrigation Department, as regard to the Civil part, envisaged raising the lining vertically on both sides of the canal and the drawings were approved accordingly. Since, for the hydel project raising the FSL was required to create head for power generation by omitting fall, it was essential that the lining be raised. Accordingly the stretch of the existing canal between the two falls was handed over to the Petitioner for completing the civil structure for power generation as per the approved design. It was further submitted that it was well known to the Petitioner that Augmentation Canal is an Irrigation Channel and not a Hydro Channel and the Irrigation Department never faced any issue in running the same as irrigation canal. However, after installation of the power project, the stretch between two falls being used by the Petitioner for power generation and the canal being treated and used as Hydel Channel for which additional

expenses are required to make the Canal fit as Hydro Channel which as per the MOU is the responsibility of the Petitioner.

**4. Reply filed by HPPC / UHBVNL:**

In their reply dated 28.12.2012 HPPC had raised a preliminary objection that the petition is not maintainable as the Petitioner has concealed the fact that they had previously also filed a similar petition in this Commission on similar grounds which was dismissed and the same are being re – agitated. It was further submitted that the Petitioner had earlier filed a case no. HERC/PRO – 13 in this Commission for seeking necessary amendments in the Power Purchase Agreement dated 13.08.2010 and for revision of tariff as well. The issues raised therein included additional expenses incurred on repair of canal lining, maintenance and upkeep of the canal 2 K.M. upstream and 2 K.M downstream at the project site, increasing auxiliary consumption from 0.5% to 1%, ROE (19% per annum for the first 10 years (pre – tax) and 24% per annum (pre – tax) from 11<sup>th</sup> year onwards, reduction of PLF / CUF for calculation of tariff, waiver of wheeling charges, Interest rate, depreciation (as adopted in accordance with Hon'ble Aptel's judgment in the case of Starwire), provision for deemed generation, third party sales and O&M charges as per actual.

The aforesaid petition was dismissed by this Commission vide order dated 12.04.2012. The Petitioner company then preferred a review petition in this Commission (RA – 03 of 2012) which was also dismissed by this Commission vide order dated 06.11.2012.

In addition to the above, HPPC had submitted that the PPA was signed for a period of 35 years, hence the financial parameters now being cited by the Petitioner to justify tariff revision cannot be re – considered after a short span of about five years that too when the data cited by the Petitioner lacks any empirical basis and financial rigors. It was further submitted that the Petitioner's claim regarding the inherent deficiency in canal lining while raising capacity from 3250 to 4500 Cusecs is also not true as the Petitioner's DPR already takes into consideration such requirements. On the issue of financial factors it was submitted that the Petitioner has not provided details of term loans, shareholding pattern, P& L account, capital reserves etc. It was contended that even otherwise the long term PPA cannot be re-visited / reopened and its terms and conditions cannot be prospective re – determined at this stage as it would undermine and obviate the necessity of having a

long term PPA and the Regulations of 2010 relied upon by the Petitioner cannot be retrospectively made applicable in the present case.

**5. Reply filed by HAREDA:**

HAREDA, in its reply dated 6.02.2013, had submitted that the success of small hydro power projects depend on adequate discharge of water and proper maintenance of canal which is under the purview of the Haryana Government, Irrigation Department. It was further submitted that the Augmentation Canal on which the two projects of the Petitioner company have been set - up is in a dilapidated condition due to which it is not being run at the FSL level causing loss of power generation. It has been prayed that while deciding tariff for such projects, the interest of the IPP, in respect of ensuring him adequate discharge and maintenance of the canal needs to be assured so that the project operate at the design parameters. It was further submitted that as the Irrigation Department has conveyed its inability to maintain the canal fit to be operated at FSL level, some mechanism needs to be devised in order to mobilize funds for maintenance of the canal. HAREDA suggested that this Commission may consider levying some maintenance charges say about 10 Paisa / kWh for creating a separate fund under the Irrigation Department which can be utilized for maintenance of the Augmentation canal upto 2 K.M. downstream of R.D. 30.102 KMs only. The maintenance charges may be in addition to the tariff to be paid to the IPP.

6. The rejoinders filed by the Petitioner are not being reproduced here as the same was also reiterated in the hearings before the Commission.

The Ld. Counsel for the Petitioner Shri R.K. Jain argued at length. The submissions made by him in the Petition(s), rejoinder(s) as well as oral arguments are summarized as under:

a) Capital Cost of the Project:

The Ld. Counsel for the Petitioner Shri R.K. Jain brought to the notice of the Commission the circumstances leading to the cost escalation of the projects. Main emphasis was laid on the inherent weakness of the canal which was never conveyed to the Petitioner right up to the execution of the project and it

was revealed only after canal breach took place on 15.12.2011 and facts came to light during investigations carried out by the expert team of the Irrigation Department.

It was submitted that the canal which was remodeled to carry an increased discharge from earlier 3250 cusecs to 4500 cusecs, however, it could not withstand this level of discharge due to heavy seepage from the joints of the lining. This fact was brought out by the Investigating Committee of the Irrigation Department and thereafter even by NIT, Kurukshetra, who were engaged as an expert body to look into the causes of breach in canal and suggest remedial measures so that the project could operate safely thereafter. Details of these facts were brought out through the written 'Notes of arguments' submitted during the last hearing on 28.05.2014. Even the Irrigation Department in its letter dated 27.11.2012 admitted as under:

*“Two more SHPs are yet to be constructed by you for which MOUs have already been entered into. In that case also Haryana Irrigation Department would not interfere on cost issue for the maintenance of the canal on the upstream side of each SHP. In case of any difficulty you may approach HAREDA/HERC before start of the work.”*

*“It is also made clear that as per past practice Augmentation Canal does not take more than 3200 cusec of water safely and you should keep this in view while executing the remaining SHPs”.*

The Ld. Counsel submitted that the above reference from Irrigation Department was duly replied to by the Petitioner Company vide letter dated 18.02.2013. The Relevant Paragraphs from this letter cited by the Counsel are reproduced hereunder:

*“In this regard, we reiterate that our obligation as per the MOU, only lies with the strengthening of the canal bank in the upstream side of the power house to the satisfaction of the govt.*

*But we are unable to interpret any clause of the MoU, which states that the canal maintenance and management even in the reaches where ponding is done for sustainable power generation, is the developer's sole responsibility and is a contractual obligation.*

*Even as per clause 8 of the MOU, wherein the government allows pondage to be created in the upstream to the FSL or allowable fee-board level for the purpose of sustainable power generation, it is expected that only the canal bank in the upstream side of the canal will be adequately strengthened by the company, to the satisfaction of the government and as mentioned earlier, to which we are undoubtedly obligated and duty bound.*

*We have accordingly, requested the Irrigation department for their active participation in the operation and management of the canal, even in the reaches where ponding is carried out for power generation. This will protect the interest of all the parties engaged in this partnership. This was even remarked by the experts at NIT, Kurukshetra in their final report dated 27/8/2012.*

It was further submitted that the fact that an inherent weakness exists on the canal lining at the junction of raising capacity from 3250 cusec to 4500 cusec was never shared with the Project Developers at the time of signing of MOU and thereafter at the time of approval of DPR and also while at the time of approval of layout design of the project. As a result, the unexpected, continuous expense has caused the Petitioner grave financial distress and has put the investments at risk.

Additionally, it was submitted that even the committee of Chief Engineers, in their report dated 09.09.13, have commented on there being no responsibility

of IPP on the maintenance of canal. The relevant Para cited by the Petitioner is reproduced hereunder,

*“...but nothing specific has been mentioned regarding their responsibility for regular maintenance of any affected reach of the canal leaving scope for the disputes arising on this account”*

It was submitted that HAREDA, which is also a signatory to the MOU, representing the State Govt. expressed its opinion supporting the case of the Petitioner in its reply filed before the Commission. The relevant citation from the reply of HAREDA is as under:

*“Para 6. That the success of small hydro projects depends on adequate discharge of water and proper maintenance of canal which is under the purview of the irrigation department. It has been observed that augmentation canal on which these projects have been set up is in a dilapidated condition due to which it is not being run at the FSL level causing loss of generation to the IPP and the state. As the state utilities have to fulfill its renewable purchase obligation (RPO), the loss of generation shall also affect fulfillment of RPO or utilities have to incur extra expenditure to full fill the RPO by purchasing renewable energy certificates.*

*Para 7. It is therefore prayed that while deciding the tariff for these projects, the interest of the IPP, in respect of ensuring him adequate discharge and maintenance of the canal, need to be assured so that the project operates at the design parameters.*

*Para 8 This matter has been repeatedly taken up by the HAREDA with the irrigation department ,Haryana and the Irrigation department vide*

*their letter No. 5960-62/546/554 dated 27.11.2012 has informed that it is not possible for the irrigation department to make the canal to act as hydel channel and it will require a huge amount of money and irrigation department does not have any surplus budget for carrying the irrigation canal into hydel channel .It has been further advise by the irrigation department to the IPP to take up the matter with HAREDA/HERC.*

*Para 9 So the prime concern of HAREDA is to safeguard the interest of the power projects as well as to maintain the augmentation canal as both irrigation & power generation are equally important for the state government. As the irrigation department has conveyed inability to maintain the canal fit to be operated at FSL level, some mechanism needs to be developed to mobilize funds for maintenance of the canal.”*

*Para 10 HAREDA is of the view that after fixation of tariff as per the HERC Norms , Hon’ble commission may consider levying some maintenance charges say about 10 Paisa/kWh for creating a separate fund under Irrigation Department, Haryana which can be utilized for maintenance of Augmentation Canal up to 2 K.M. downstream of RD 30.102 KM. only. These maintenance charges of the canal may be in addition to the tariff to be paid to IPP. Considering 50% PLF approximately fund amounting Rs.12.26 lac per month shall be available from the two small hydro projects on this augmentation canal”.*

In the hearing, a reference was made by the Ld. Counsel Shri R.K. Jain to the recent order of the Hon’ble Appellate Tribunal for Electricity in Appeal No. 90 of 2013 M/s Puri Oil Mills Vs HPPC and others. The relevant paragraph cited by

the Petitioner is as under:

*“34. We find that the State Commission by the impugned order has already given the liberty to approach the State Commission for determination of tariff prospectively after the completion of the earlier control period in March, 2012. Accordingly, the Appellant may approach the State Commission with the supporting documents for determination of the tariff with prospective effect.”*

Accordingly, it was submitted that the Petitioner had submitting the facts of the case for kind consideration of the Commission. The Petitioner conceded to the fact that the tariff for the control period ending 31.03.2012 may not be reviewed in view of the Hon'ble APTEL order, but the present submissions are for determination of tariff for the next control period commencing 01.04.2012 i.e. after the expiry of the earlier control period as covered under the order of the Commission dated 15.05.2007.

It was argued that the capital cost of the two projects has basically increased due to totally unforeseen investment which had to be made to strengthen the lining of the canal in the upstream side for both the power plants. The actual expenditure submitted for the two projects ending 31.03.2012, 31.03.2013 and 31.03.2014, along with the investment required for completing the pending canal lining works based on the audited Balance Sheets of the Petitioner Company, are on page number 12, 13 & 14 of the present order.

Project Cost data of Mussapur Mini Hydel Projec (as per Audited Balance Sheets)				
Description	FY 2012	FY 2013	FY 2014 (Pre-audited)	Reasons for cost increase
Actual project cost (Rs. Lac)	1628	1657	1658	Strengthening of canal lining, 2 kms upstream (condition imposed by Irrig. Deptt.)  Inherent weakness at the junction of raising canal lining from 3250 cusecs to 4500 cusecs.
Pending canal lining work (Rs. Lac)			29	-do-
<b>Total Project cost (Rs. Lac)</b>			<b>1687</b>	<b>Rs.12.05 Cr./MW</b>

Project Cost data of Khukhani Mini Hydel Project(as per Audited Balance Sheets)				
Description	FY 2012	FY 2013	FY 2014 Pre-audited	Reasons for cost increase
Actual project cost (Rs. Lac)	1749	1771	1772	Strengthening of canal lining 2 kms upstream (condition imposed by Irrig. Deptt.)  Inherent weakness at the junction of raising canal lining from 3250 cusecs

				to 4500 cusecs.
Pending canal lining work (Rs. Lac)			69	-do-
<b>Total Project cost (Rs. Lac)</b>			<b>1841</b>	<b>Rs.13.15 Cr./MW</b>

It view of the above the Petitioner prayed that in line with HERC RE Regulations the actual project cost may be considered for determining the tariff for the period commencing 01.04.2012.

b) Operation & Maintenance Charges:

The Petitioner had submitted that due to extra burden cast upon the Petitioner for O&M of the canal (2 km upstream and 2 km downstream of the power houses as per Irrigation Department condition added after the signing of PPA), and the recommendations of the expert Team of NIT, Kurukshetra, the Petitioner has been saddled with additional responsibility of regular O&M of the canal lining, which is resulting in perpetual extra O&M expenses. The actual O&M expenditure (as per the Audited Balance Sheet of the Petitioner Company) provided by the Petitioner are as under:

Op. & Mtc. Expenses (Rs. Lac) (as per the Audited Balance Sheet)			
	FY 2013	FY 2014	Reason for extra O&M expenses
Mussapur Mini Hydel Project	67.02	67.25	Condition imposed by Irrig. Deptt. on canal strengthening 2 kms upstream  Due to inherent weakness in the canal embankment

			Canal repair and maintenance work.
Khukhani Mini Hydel Project	65.75	72.52	-do-

The Petitioner Company had prayed that the actual O&M cost may be considered while determining the tariff for the period commencing 01.04.2012.

c) Plant Load Factor/ Capacity Utilization Factor for the Projects:

On the issue of PLF / CUF the Petitioner had submitted as under:

- (i) Due to successive silt deposit in the Augmentation Canal upstream of the power plants, the power plants have to be closed for two days in a month to wash away the loose silt, which results in total loss of power generation for two days every month i.e. **a loss of 6% on annual basis.** Further for de-silting the plants would have to be closed for minimum 15 days, at least annually i.e. **a further annual generation loss of 6%.**
- (ii) Due to the accumulated silt, the water carrying capacity of the canal is affected which in turn reduces the discharge available for power generation and final power generation from the plants. Recently, the Committee of Chief Engineers, constituted vide Govt. of Haryana Memo. No. 33346/SE/W/13 dated 27.06.2013 (Copy of the report already placed before the Commission during the hearing) also concluded in their report dated 09.09.13 as under:

*“The Augmentation Canal was able to run with only 3059 cusecs against the designed capacity of 3700 cusecs after its construction in 1971 and even after raising its capacity to 4500 cusecs the*

*maximum discharge run in the channel was 3455 cusecs and the safe carrying capacity of the canal is about 3200 cusecs only.”*

The Committee has also observed on the de-silting of the canal in the above report, the relevant Para is reproduced hereunder.

*“De-silting of the canal was however not done nor the bank strengthening/ restoration up to the designed level was carried out at the time of rehabilitation because of which the authorized full discharging capacity was not reportedly achieved.”*

- (iii) The Petitioner had requested the Irrigation Department to allow closure of the Augmentation Canal for 15 days in the month of April 2014 which was granted by the Engineer-in-Chief, Irrigation Department, vide letter dated 12.05.2014 and he has also recommended to the Mining Authorities as well. The Petitioner is in contact with the Mining Deptt. and hopes to complete the work by 30.06.2014 once the approval is received from the Mining Department, which is still awaited.
- (iv) Due to accumulation of silt and due to specific directions of the Irrigation department to keep the water level lower in case of Khukhni Power Plant, Petitioner Company is not able to achieve the designed FSL which cause regular loss in generation of power.
- (v) While the project has been sanctioned for 3 units of 0.70 MW each at the two power plants and all civil works are in place for the 3<sup>rd</sup> Turbine, the PLF of the projects would further go down due to reduced water availability for each turbine.
- (vi) The water discharge data for the last 6 years has been submitted to provide the power potential at the two power plants,

Year	Average Discharge in cumecs.
2005	66.44
2006	72.63
2007	73.29
2008	63.49
2009	68.43
2010	57.56
Average Discharge	66.97

The Petitioner submitted that considering the above background data a normative Annual PLF of 56% may be considered for determination of tariff for the next control period commencing 01.04.2012, in line with the norms adopted in the case of P&R Gogripur Power Project.

d) Auxiliary Consumption:

The Petitioner had submitted during the hearing that the Auxiliary Energy Consumption may please be adopted as 1% in line with the HERC Regulation No. HERC/23/2010 and the norms adopted in the case of P&R Gogripur Hydel Project.

## **7.0 Commission's Analysis & Order:**

**7.1** At the outset, the Commission observes that the Respondent had raised certain preliminary objections to the tariff petition filed by M/s Puri Oil Mills. Hence, the Commission, before going into merits of the case, would like to first deal with the same. The Respondent had raised the preliminary objection in view of the fact that this Commission in Case No. HERC/PRO-13 of 2011 titled as M/s Puri Oil Mills Vs HPPC and Others had dismissed the Petition. The Respondent had submitted that the facts and circumstances of the present case being the same, the present petition also deserve to be dismissed.

**7.2** The Commission has considered the above objection and has examined the order dated 12.04.2012 in Case No. HERC/PRO-13 of 2011. The Commission observes that few issues that have also been raised in the present petition namely deemed generation, third party sale including REC etc. were decided by the Commission while passing order in Case No. HERC / PRO – 13 of 2011 and that are also applicable in the present case also. However, the fact remains that the tariff per. se. was applicable only for the control period of five years ending 31<sup>st</sup> March, 2012. Hence the tariff for the second tariff control period has to be decided / approved afresh which will be applicable from 1.04.2012 and not from the COD of the project. Consequently, while rejecting the above mentioned petition of M/s Puri Oil Mills the Commission had observed as under:

*(i) "The commission observes that the tariff for small hydro projects in Haryana determined vide order dated 15th May, 2007 currently in vogue, has been estimated on the basis of Rs. 10.25 Crore / MW and CUF of 70% given the small hydro projects in Haryana are basically canal based having very low head and require substantial civil work. Where the benchmark capital cost as per CERC Regulations adopted by HERC is substantially lower than the capital cost considered by commission while determining generic tariff in 2007. Thus given the asymmetry the commission is of the considered view that the potential for hydro power projects in Haryana is low and there could be significant variation in project cost as well as CUF at different locations. Hence the commission would decide/ review the tariff for small*

*hydro projects in Haryana on a case to basis after obtaining data on water flow as well as capital cost for the projects already commissioned in Haryana”.*

(ii) Additionally, the Commission had observed as under:

*“In line with the above observations of the Commission the petitioner has the liberty to file a petition for determination of tariff with case specific supporting data which would be applicable from a prospective date as the tariff determined by the Commission vide order dated 15<sup>th</sup> May, 2007 was valid only for the period ending March, 2012. The Commission after reviewing the case specific data shall pass an appropriate order”.*

Thus the intention of the Commission was quite clear i.e. for the next control period beginning 1<sup>st</sup> April, 2012, the tariff in the case of mini – hydro projects shall be re – determined in the light of case specific supporting data. Consequently, the Commission while determining generic tariff for biomass, solar, wind etc. power projects vide order dated 25.01.2012 did not include mini – hydro power projects.

In the light of the above, the Commission finds it difficult to agree with the Respondent that the present petition needs to be dismissed in view of the Commission’s order dated 12.04.2012 in Case No. HERC/PRO-13 of 2011.

**7.3** The second preliminary objection raised by the Respondent pertains to Article 3.1.2 of the concluded PPA wherein both the parties have agreed that the annual escalation @ 1.5% on the minimum rate of Rs 3.67 per kWh (base year FY 2007-08) will be admissible up to FY 2011-12. Hence the present petition is not maintainable in its present form.

The Commission has considered the above submission of the Respondent and observes that the Respondent has admitted the fact that “the parties have agreed to the cap of annual escalation on the minimum rate will be admissible up to 31.03.2012 and for the remaining duration of the agreement, the purchase price shall be *decided and notified* by the Haryana Electricity Regulatory Commission”. As the Commission has undertaken the present exercise solely for the purpose of determining tariff for the remaining duration of the agreement w.e.f 1<sup>st</sup> April, 2012, the objection of the Respondent has no merit.

**7.4** The third preliminary objection of the Respondent is based on the fact that at the time of signing the PPA the Petitioner accepted all terms and conditions and was allotted the project on the basis of expertise claimed by them and based on the DPR dated 20.08.2007 duly approved by HAREDA. Further no unforeseen circumstances have been disclosed and the agreement has not been subjected to any force majeure conditions. Hence, at this stage the Petitioner cannot claim any cost escalation or revision in tariff.

The Commission has considered the above preliminary objection of the Respondent and observes that the PPA was signed by the Respondent and the tariff agreed to by the parties was the Generic Tariff order dated 15.05.2007 of this Commission. The Commission observes that a copy of the DPR approved by HAREDA for both the projects is already on the record of the Commission. A perusal of the DPR (Feb, 2007) reveals that the total project cost for 1.4 MW Khukhani hydro power Project including IDC and other misc. charges is Rs. 16.19 Crore i.e. Rs. 11.56 Crore/MW and Rs. 15.81 Crore (Rs. 11.29 Crore / MW) for the Mussapur hydro power project is higher than Rs. 10.25/MW considered by the Commission in its order dated 15.05.2007 for determining the generic tariff applicable for all mini – hydro projects to be set up in Haryana. Further, as at that point of time no such hydro projects was operational in Haryana no actual data was available to the Commission that could have been considered as the benchmark.

Consequently, after holding public consultation a benchmark capital cost was arrived at which formed the basis of determining generic tariff. While doing so, the Commission was aware that actual project cost could vary from location to location and hence the Commission considered it appropriate to determine tariff for the second control period based on case specific data emanating from the projects that have been commissioned in the state instead of data of generic nature as was done while passing the order dated 15.05.2007.

**7.5** In view of the above facts, the Commission does not find any merit in the preliminary objections of the Respondent based on cost estimates in the DPR or the expertise of the Petitioner etc. Consequently, the Commission shall proceed to examine the claims / proposal of the Petitioner on each component of tariff in the light of Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2010 (hereinafter referred to as RE Regulations, 2010) as well as Hon'ble APTEL's judgment dated 9.4.2014 in Appeal No. 90 of 2013.

#### **7.6 Basis for Determination of Tariff:**

7.6.1 Before going into the various elements of tariff determination i.e Capital Cost, Auxiliary energy Consumption, O&M, PLF /CUF and Interest component etc, the Commission observes that while rejecting the earlier petition for re – determination of tariff for the period prior to 1.04.2012 as well as the review petition preferred by the Petitioner against the same the Commission had examined the issue of Capital Cost as well as O&M at length and had passed a detailed order on the same. Further, the Petitioner had preferred an Appeal against the ibid order of the Commission dated 12.04.2012 in the Hon'ble Appellate Tribunal (Appeal No. 90 of 2013). The issues framed by the Hon'ble APTEL and the judgment dated 9.04.2014 thereto is

reproduced below as the same has significant bearing on the tariff to be determined by this Commission w.e.f. 1.04.2012:

*“ 7. On the basis of the rival contentions of the parties, the questions that arise for our consideration are:*

*i) Whether the State Commission should reopen the already concluded PPA and re-determine the tariff of the mini hydro projects of the Appellant in the circumstances of the case?*

*ii) Whether the Appellant is entitled to claim higher capital cost, O&M charges and compensation for loss of generation due to grid constraints over and above that considered in the tariff order dated 15.5.2007 and agreed to in the PPA?*

*iii) Whether the Appellant is entitled to claim open access and REC despite having a long term PPA for supply of power to the Respondent no. 1?*

*iv) Whether the Respondent no. 2 is entitled to claim wheeling charges @ 2% even though the entire energy from the Appellants projects is being supplied to the distribution licensees?*

*As the first three issues are interconnected these are being dealt with together.*

*8. Let us examine the findings of the State Commission in the impugned order dated 12.4.2012.*

*The relevant findings of the State Commission are summarized as under: i) The State Commission determined the generic tariff for renewable power projects vide order dated 15.5.2007 and the tariff was applicable with the annual escalation factor for the control period of five years. The order dated 15.5.2007 was not challenged by mini hydel power projects.*

*ii) The Tariff Regulations for renewable energy sources of 2010 were notified on 3.2.2011 and were applicable from the date of notification. The 2010 Regulations stipulate that the PPAs signed by the distribution licensees on the basis of tariff determined by the State Commission in its order dated 15.5.2007 and 6.11.2009 before the notification of the 2010 Regulations shall remain valid for the tariff period as per the PPA and such cases shall not be reopened in view of the norms provided in these Regulations.*

*iii) In the PPA dated 13.8.2010, both the parties agreed to the tariff determined by the State Commission vide order dated 15.5.2007 including the escalation factor approved by the State Commission. The PPA also has the provision for determination of tariff beyond the control period. Thus, the Petitioner M/s. Puri Oil Mills Ltd. willingly entered into PPA as late as 13.8.2010 i.e. more than three years after the date of passing of the tariff order dated 15.5.2007 by the State Commission.*  
*iv) There is nothing on record to establish that M/s. Puri Oil Mills Ltd. made any bonafide attempt to survey and reassess the additional work required for their power*

house or irrigation canal at site before going ahead with the project and signing the PPA.

v) In view of the concluded PPA with specific agreement on applicable tariff and the 2010 Regulations and Central Commission's Renewable Energy Regulations being subsequent development not applicable to the Petitioner, the claim of M/s. Puri Oil Mills Ltd. for adoption of the revised norms based on the 2010 Regulations of Haryana Commission and the Central Commission's Regulations is rejected.

vi) Regarding additional expenses on account of repair & maintenance of the irrigation canal, it was the pre-condition of approval and it was a planned work known in advance to the project developer before signing of PPA, hence the Petitioner ought to have taken all such expenses into consideration at the DPR stage. Therefore, these expenses cannot be considered unforeseen expenses.

vii) In view of firm commitment of sale of entire power generated by the Petitioner to the Respondents, third party sale and REC benefit cannot be allowed. viii) The State Commission vide order dated 25.1.2012 has held that the State Commission would decide/review the tariff for small hydro projects in Haryana on case to case basis after obtaining data on water flow as well as capital cost for projects already commissioned in Haryana. Thus, the Petitioner has liberty to file a Petition for determination of tariff with case specific supporting data which would be applicable from a prospective date as the tariff determined by the State Commission vide order dated 15.5.2007 was valid only for the period ending March, 2012 and the Commission after reviewing the case specific date shall pass appropriate order.

9. Thus, the State Commission after rejecting the prayer of the Appellant for re-determination of tariff in view of the concluded PPA gave liberty to the Appellant to file a Petition with supporting data to determine project specific tariff prospectively as the tariff determined by order dated 15.5.2007 was valid only till the period ending March 2012. 10. Let us examine the PPA dated 13.8.2010. The relevant clauses are reproduced below: "3.1. Sale of Energy by Company:

The HPPC shall purchase and accept all energy made available at the Delivery point from the Company's facility, pursuant to the terms and conditions of this agreement as per the HERC tariff order dated 15.5.2007 and 6.11.2009 for small & mini HEP (falling under non conventional energy sources) issued by the Haryana Electricity Regulatory Commission. The IPP shall deliver the contracted energy barring unforeseen circumstances of Canal Closures OR any planned maintenance schedules of Irrigation Deptt. planned & forced outage of the unit/plant or force Majeure conditions described separately under clause 15.1 & 15.2.

10. Annual Escalation @ 1.5% on the minimum rate of Rs. 3.67 per kWh (base year 2007-08) will be admissible upto the year (2011-2012) i.e. upto 31.03.2012 and for the remaining duration of the agreement, the purchase price shall be decided and notified by the Haryana Electricity Regulatory Commission subject to a minimum Rs. 3.67 per kWh. The escalated tariff will be applicable from 1st day of April of each year. This rate would be uniform throughout the day for the entire year".

11. Thus, vide the above PPA the parties agreed to tariff of Rs. 3.67 per kWh with annual escalation of 1.5% as decided by the State Commission vide order dated

15.5.2007 and 6.11.2009 for small and mini hydro electric projects.

12. Let us examine the grounds for re-determination of tariff pleaded by the Appellant in its Petition before the State Commission. These grounds are: i) During the construction of the Project it was realized that the capital cost of the project would be much higher due to unforeseen additional cost for reasons such as conditions imposed by the State Irrigation Department for repair of canal lining and maintenance and upkeep of the canal 2 km. upstream and 2 km. downstream of the project site.

ii) The State Commission while determining the tariff for assumed auxiliary consumption, Return and Equity and interest rate lower than the Central Commission's Regulations of 2009 and Haryana Commission's Regulations of 2010. The PLF/CUF of hydro projects in the State Commission tariff order was 70% whereas the Central Commission's Regulations provide for CUF of 56% and Haryana Commission's 2010 Regulations provide for CUF of 30%.

iii) The delivery point as per PPA is the power station bus bar and the distribution licensee has been given the responsibility of building the interlinking line upto 10 km. from the generating station to the designated 33 kV sub-station of the distribution licensee yet 2% wheeling charges have been specified in the tariff order dated 15.5.2007. iv) Amendment in deemed generation based on the concurrence given to the Solar Projects by the State Commission needs to be considered. v) Third party sale and REC needs to be allowed.

vi) The compensation for reduction in subsidy by the Ministry of New & Renewable Energy needs to be given.

13. During the hearing, the Appellant has pressed the claims for re-determination of tariff on grounds of increase in capital cost of the project, deemed generation, increased operation and maintenance expenses and waiver of wheeling charges and also sought third party sale and REC benefits. The Appellant wants that the State Commission should re-determine project specific tariff under Section 62 of the Electricity Act, 2003.

14. We find that the State Commission as per Section 86(1)(e) has to promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person.

15. Clause 6.4 of the Tariff Policy specifies as under: " 6.4 Non-conventional sources of energy generation including Co-generation: (1) Pursuant to provisions of section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage for purchase of energy from such sources taking into account availability of such resources in the region and its impact on retail tariffs. Such percentage for purchase of energy should be made applicable for the tariffs to be determined by the SERCs latest by April 1, 2006.

It will take some time before non-conventional technologies can compete with conventional sources in terms of cost of electricity. Therefore, procurement by distribution companies shall be done at preferential tariffs determined by the

*Appropriate Commission.”*

*16. Thus, in terms of the Tariff Policy, the State Commission has to determine preferential tariff for non-conventional sources of energy for purchase of energy from such sources by the distribution licensees.*

*17. The State Commission vide order dated 15.5.2007 determined the preferential tariff for mini hydro power projects. Subsequently, the Appellant willingly entered into PPA for sale of power from its hydel project with the distribution licensing agreeing for the supply of energy at the tariff as determined by the State Commission by order dated 15.5.2007.*

*18. According to the Appellant, the State Commission while fixing the tariff by order dated 15.5.2007 was aware that the hydro projects in Haryana are basically canal based having low head which require substantial civil work.*

*19. We notice from order dated 15.5.2007 of the State Commission that the stakeholders in their comments submitted to the State Commission during the public hearing had highlighted that the hydro project in Haryana basically being canal based with very low head required substantial civil works and consequently it would lead to escalation in the project cost. The State Commission after consideration of the submissions of the stakeholder decided capital cost of Rs. 10.25 Cr./MW for mini hydro projects. We find that the Central Commission in its 2009 Tariff Regulations for renewable energy sources has allowed capital cost of Rs. 5.5 Cr./MW for similar projects in the State of Haryana. Thus, the State Commission has after taking into consideration the objections and suggestions of the stakeholder has allowed capital cost which is substantially higher than that allowed by the Central Commission.*

*20. According to the Appellant additional cost was incurred due to damage of the canal after raising the water head in the canal at the time of commissioning of the power project, poor condition of the canal and the condition subsequently imposed by the Irrigation Department for operation and maintenance of the canal two km. upstream and two km. downstream of the hydro project. We notice that the responsibility of strengthening works of the canal banks to facilitate ponding of water in the canal was that of the Appellant and the Appellant had adequate time to study and carry out due diligence of the condition of the canal from the date of entering into a MoU with the State*

*Government on 27.11.2006 and signing of the PPA on 13.8.2010. The Appellant itself had admitted that while approving the drawings the Irrigation Department had indicated that O&M of the canal two kilometers upstream and two kilometers downstream would be the responsibility of the Appellant. We are, therefore, not convinced about the claim of the Appellant for additional capital cost as we feel that the capital cost decided by the State Commission while determining the tariff by order dated 15.5.2007 is reasonably high taking into consideration the high cost for canal based hydro projects in Haryana.*

*21. For the operational norms such as O&M expenses the Appellant has referred to the provisions of Central Commission's Regulations of 2009. The capital cost specified in the Central Commission's Renewable Energy Regulations, 2009 for hydro projects is Rs. 5.5 Cr./MW as against Rs. 10.25 Cr./MW decided by the State Commission in its order dated 15.5.2007. The Appellant is not claiming capital cost*

as per Central Commission's Regulations but claims other operational norms as per the Central Commission's Regulation. We feel that the Appellant cannot selectively seek favourable parameters from the Central Commission's Regulations to claim higher tariff. The generic tariff determined by the State Commission by order dated 15.5.2007 based on the parameters specified therein was accepted by the Appellant and they willingly entered into the PPA with the Respondent no. 1 at the tariff determined by the State Commission by order dated 15.5.2007. The capital cost allowed by the State Commission in the norms decided in the tariff order dated 15.5.2007 is substantially higher than the Central Commission's norm for capital cost. It is now not open to the Appellant to claim higher tariff just because more favourable operational norms have been decided in the Central Commission's Regulations and in the State Commission's Regulations notified subsequently.

22. The Appellant also relies on the 2008 Regulations which provides for norms for WYC Projects and Micro Hydel projects claiming that the 2010 Regulations do not in any manner repeal the 2008 Regulations. Alternative submission made by the Appellant is that the 2010 Regulations cannot in any manner take away a statutory right vested on the generator to seek determination of tariff under Section 62 and 64 of the Electricity Act, 2003.

23. We find that the 2008 Tariff Regulations notified on 19.12.2008 are the Regulations for determination of Generation Tariff for Thermal and hydro projects for supply to distribution licensees. The 2008 Regulations provide that where the tariff has been determined bilaterally between the distribution licensee and the generating company and the PPA has been approved by the State Commission based upon such tariff, the State Commission shall adopt such tariff together with terms and conditions of such approved PPA. The 2008 Regulation provides certain tariff norms for WYC Projects & Micro Hydel. Regulation 25 provides that subject to prudence check by the Commission, the actual expenditure incurred on the completion of the project shall form the basis for fixation of final tariff.

24. We find that the Appellant entered into PPA for sale of power with the Respondent no. 1 on 13.8.2010. At the time of execution of the PPA, the State Commission's 2008 Tariff Regulations had been notified and also the State Commission had also determined the generic tariff for mini hydro projects based on some norms by order dated 15.5.2007 in terms of the Tariff Policy under which the Commission had to decide preferential tariff to promote renewable sources of energy. The Appellant had a choice of determination of tariff as per 2008 Tariff Regulations at the time of execution of the PPA. However, it chose to accept the generic tariff as determined by the State Commission vide order dated 15.5.2007. Subsequent to the 2008 Regulations, the 2010 Regulations for renewable energy sources were notified which had specific provision for continuation of earlier tariff for those projects which had already entered into the PPA. At this stage it is not open for the Appellant to claim determination of project specific tariff as per the 2008 Regulations.

25. The Appellant has cited the following judgments in support of its claim for re-determination of the tariff: i) *Rithwik Energy System Ltd. vs. Transmission Corporation of A.P. Ltd.* 2008 ELR (APTEL) 237. ii) 2009 ELR (APTEL) 1025 in the matter of *Techman Infra Ltd. vs. Himachal Pradesh Electricity Regulatory Commission & Ors.* iii) *Tarini Infrastructure Ltd. vs. Gujarat Urja Vikas Nigam Ltd.*

reported in MANU/ET/0106/2012

iv) *Tarini Infrastructure Ltd. vs. Gujarat Electricity Transmission Corporation Ltd. & Ors.* reported in MANU/ET/0107/2012.

v) *Konark Power Projects Ltd. vs. Bangalore Electric Supply Co. Ltd.* 2012 ELR (APTEL) 429.

vi) *Harvest Energy Pvt. Ltd. vs. Madhya Pradesh Electricity Regulatory Commission & Anr.* in Appeal no. 93 of 2012

vii) *India Thermal Power Ltd.* reported as (2000) 3 SCC 379.

viii) *Sai Renewable Power Pvt. Ltd.* reported in (2011) 11 SCC 34.

26. *Rithwik Energy* case referred to above at i) is not applicable to the present case. In *Rithwik Energy* case the State Commission had introduced certain conditions which did not find place in the original PPA and thus re-opened the PPA to the detriment of the renewable energy project by curtailing the incentive. Appeal No. 90 of 2013 Page 34 of 46

27. In *Techman Infra* case referred to above at S.No. ii), the Tribunal felt that the capital cost allowed by the State Commission was required to be enhanced and decided so and also allowed the Electricity Board and the generator to apply for a site specific fixation of capital cost in the circumstances of the case. This finding will not be applicable to the present case. In this case we find that the project is a canal based project where the conditions are well known and no geological surprises are expected as in case of any other river based project. The State Commission in special circumstances of development of canal based hydro projects in the State determined the tariff on 15.5.2007 considering a high capital cost of Rs. 10.5 Cr./MW after considering the objections/suggestions of the stakeholders.

28. The findings in *Tarini* case referred to above at iii) & iv) will also not be applicable to the present case as in *Tarini* case the tariff was not determined under the provisions of the Act and the tariff as per the guidelines of Ministry of New & Renewable Energy which had no force of law was adopted. In the present case, the State Commission has determined the tariff under the provisions of the Act as per the norms decided in the tariff order dated 15.5.2007.

29. In case of *Konark Power* referred to above at v) in the circumstances of the case where the biomass project had to be closed down as the biomass fuel cost had increased much above the fuel cost allowed in the tariff resulting in unviable operation of the plant, the Tribunal had remanded the matter to the State Commission to re-fix the tariff. Findings in *Konark Power* will also not be applicable to the present where the Appellant is claiming a higher capital cost and we have held that the State Commission has already allowed a reasonably high capital cost. The Appellant's Power Plant is a Hydro Project which has a very low operating cost as no fuel is used.

30. In *Harvest Energy* case referred to above at S. No. vi), the State Commission's order determining the tariff of renewable energy sources of energy was challenged and the Tribunal felt that the State Commission had not determined the capital cost

and other normative parameters with a reasoned order and accordingly the matter was remanded to the State Commission for reconsideration. The finding in this case will also not be applicable to the present case where the Appellant had not challenged the tariff order dated 15.5.2007 and executed the PPA on the basis of the tariff order dated 15.5.2007.

31. The India Thermal Power case referred to above at S. No. vii) dealing with PPA under Section 43 of the Electricity (Supply) Act 1948 is also not applicable to the present case. In the present case the PPA was executed based on the tariff determined by the State Commission and in the circumstances of the case we have held that the claims of the Appellant for re-opening of the PPA are not valid.

32. Similarly, the findings of the Hon'ble Supreme Court in Sai Renewable Power case are also not applicable to the present case. In Sai Renewable Power case the Hon'ble Supreme Court set aside the judgment of the Tribunal who had held that the State Commission had no jurisdiction to re-fix the tariff. In the present case we have held that the re-fixation of tariff in the circumstances of case is not warranted.

33. In view of above, we do not find that there is any valid reason for reopening the PPA and re-determining the tariff of the Appellant's hydro projects in the circumstances of the case. Accordingly, the Appellant is also not entitled to claim higher capital cost, O&M charges and compensation for loss of generation over and above that considered in the tariff order of the State Commission dated 15.5.2007 and agreed to in the PPA. First two issues are answered against the Appellant accordingly.

34. We find that the State Commission by the impugned order has already given the liberty to approach the State Commission for determination of tariff prospectively after the completion of the earlier control period in March, 2012. Accordingly, the Appellant may approach the State Commission with the supporting documents for determination of the tariff with prospective effect.

35. The Appellant has also sought permission for third party sale and REC. We do not understand how the Appellant could claim permission for third party sale when it has entered into a long term PPA for 25 years for sale of power with the Respondent no. 1.

36. The Appellant is relying on Article 11.1 of the PPA for claiming third party sale. Article 11.1 of the PPA is reproduced below:

*"11.1 If at a later stage, during the tenure of this agreement, HERC lays down or formulate the policies of third party sale of power generated by IPPs, in that eventuality, the HPPC will consider the proposal of the third party sale of power by the generating company on a separate set of terms and conditions as mutually acceptable to both, the HPPC and the generating company and subject to prior approval of HERC".*

37. According to the above provision the Respondent no. 1 could consider to allow third party sale on terms and conditions mutually acceptable to both the parties and subject to prior approval of the State Commission. If the Respondent no. 1 is not willing to allow third party sale, the same could not be claimed by the Appellant as a

*matter of right. We find that the State Commission has also given correct reasons for disallowing third party sale.*

*38. Similarly there is no case for the Appellant to claim REC benefit when the Appellant is supplying power to the Respondent no. 1 on the preferential tariff determined by the State Commission against a long term PPA. Thus, the Appellant does not qualify to claim REC benefit. Accordingly, the third issue is also decided as against the Appellant.*

*39. However, we find merit in the case of the Appellant in the fourth issue regarding levy of wheeling charges on the energy supplied to the Respondent no. 1 for use by the distribution licensee. The Appellant is supplying the entire energy generated at its power plants for use by the distribution licensee and is not wheeling any power for captive use or for sale to third party.*

*40. 'Wheeling' is defined under Section 2 (76) of the Electricity Act, 2003 as under:*

*(76) "wheeling" means the operation whereby the distribution system and associated facilities of a transmission licensee or distribution licensee, as the case may be, are used by another person for the conveyance of electricity on payment of charges to be determined under section 62; Here the distribution system facilities are being utilized by the distribution licensee for taking power from the Appellant's Power Plant for supply to its consumers and, therefore, there is no reason for the Respondents to levy wheeling charges on the Appellant, the generator.*

*41. We find that the State Commission has determined the tariff based on the operational and financial norms decided the tariff order dated 15.5.2007. According to the tariff order the State Transmission utility/distribution licensee has to provide connectivity to the renewable energy generator and the generator has to bear the cost of transmission line beyond 10 km. if the distance of transmission line from the power plant to the licensee's sub-station is more than 10 km. In the tariff order the Commission also decided the wheeling charges and banking which are applicable for wheeling of power for captive use or third party sale. The banking and wheeling charges are not applicable where the generator is supplying the entire power at its bus bars to the distribution licensee for which the State Commission has determined the ex-bus tariff.*

*42. We also find that according to the PPA dated 13.8.2010, the delivery point of the power is the switchyard of the power plant of the Appellant. The tariff is also defined as the rate approved by the State Commission for every kWh of net delivered energy at the delivery point. The metering point is also the Inter Connection Point which the point where the switchyard of the Power Plant joins with the power evacuation line of the distribution licensee. The PPA has a provision (Article 11) for Wheeling and Banking, if at a later stage there is mutual agreement the parties agree for third party sale by the Appellant subject to the approval of the State Commission and in such case the Appellant and the third party shall enter into a Wheeling & Banking agreement. We feel that the Wheeling charges will be payable by the Appellant only when in supplies power to a third party which is not the case at present.*

*43. Thus, we hold that wheeling charges are not leviable on the Appellant for the energy supplied to the Respondent no. 1 for utilization by the distribution licensee.*

*Accordingly, the distribution licensee will refund amount wrongly deducted as wheeling charges to the Appellant within 45 days of communication of this order. In case of delay in making payment beyond 45 days simple interest @ 12% per annum will be payable to the Appellant.*

*44. Summary of our findings:*

*i) In the circumstances of the case we do not find any merit for re-determination of the tariff of the Appellant's mini hydro power plants and claim of the Appellant for third party sale/REC.*

*ii) The Respondent no. 1 has wrongly levied wheeling charges @ 2% from the Appellant whereas no wheeling charges were leviable for supply of energy by the Appellant to the distribution licensees. Accordingly, the Respondent no. 1 has been directed to refund the amount deducted from the bills of the Appellant towards wheeling charges to the Appellant within 45 days of communication of this order. In case of delay in refunding the amount due to the Appellant beyond 45 days simple interest at the rate of 12% per annum will be payable by the Respondent no. 1 to the Appellant.*

*45. The Appeal is allowed only with respect to levy of wheeling charges. No order as to costs."*

i) From the aforesaid judgment dated 9.04.2014 in Appeal No. 90 of 2013, the Commission observes that the issue of re-visiting Capital Cost, O&M expenses, auxiliary energy consumption, PLF / CUF were deliberated by the Hon,ble APTEL and the grounds of rejecting the same as appearing in this Commissions' order dated 12.04.2012 was upheld. The Petitioner has again relied on the similar factors for claiming higher Capital Cost as was before the Commission while passing the order dated 12.04.2012. The only difference in the earlier petition and the present petition is regarding the period for which the tariff would be applicable.

(ii) The Commission observes that as per regulation 27 (1) of the RE Regulations, 2010 the Capital Cost is Rs. 5.50 Crore / MW for a small hydro project below 5 MW and 5 Crore / MW for a project size of 5 MW to 25 MW for the first control period commencing FY 2010-11 subject to indexation mechanism as per regulation 28. Further, the Commission observes that the RE Regulations, 2010 has no provision for additional capitalization on a completed cost basis.

(iii) The Commission further observes that in its order dated 3.10.2007 in the matter of review petition filed against the commission's order dated 15.05.2007 the Commission had ordered as under:

*“To allay the fear from the mind of the IPPs, the Commission would like to clarify at this stage that the rate of return on equity, capital cost, debt – equity ratio already mentioned in the Commission's order and accelerated depreciation at the rate of 7.5% will be honored in the subsequent years as well for the projects attaining financial closure during the validity of the tariff determined by the Commission i.e. FY 2007-08 to FY 2011-12. With regard to other parameters of expenditure to be taken into account for calculation of tariff the same will be considered after hearing all the stakeholders and examining the submissions made by them”.*

**(iv) In view of the above the Commission observes that the order dated 3.10.2007 predates the HERC RE Regulations, 2010 and hence the capital cost mentioned therein cannot be made applicable to the projects already commissioned. Further the higher capital cost claimed by the Petitioner on the basis of additional expenditure for maintenance of the canal is also not admissible as the Petitioner was allocated the site for setting up the powerhouse based on their claimed expertise and they should have exercised due diligence at their own end regarding the feasibility of the project. Thus it was well within the knowledge of the Petitioner that for using and maintaining the canal fit as a hydel channel additional expenses would be required. Hence any additional expenses on civil work as well as maintenance of the canal is the responsibility of the Petitioner and ought not to be passed on to the electricity consumers by way of higher tariff.**

**In view of the above discussions the Commission is of the considered view that the present case squarely falls within the scope of the order(s) of the Commission passed**

**prior to notification of RE Regulations, 2010, hence for the purpose of tariff determination w.e.f. 1.04.2012 the Commission has considered the Capital Cost, ROE and Debt: Equity ratio as per Commission's order dated 15.05.2007 and review order dated 3.10.2007.** Further, once the Capital Cost has been approved i.e. in the order dated 15.05.2007 which also formed the basis of PPA, the same cannot be re-visited even for determining tariff for the subsequent period.

#### **7.6.2 Auxiliary Energy Consumption and O&M expenses:**

(i) On the issue of auxiliary energy consumption, the Petitioner had submitted that this Commission, while determining the tariff for Mini Hydel Projects, had assumed 'Auxiliary Consumption' @ 0.5% whereas in the HERC (Terms and Conditions for Tariff determination from Renewable Energy Sources, Renewable Purchase Obligations and Renewable Energy Certificates) Regulations, 2010, the normative auxiliary energy consumption has been kept at 1% and that the same may now be considered by this Commission in line with the HERC Regulations, 2010.

(ii) The Commission has considered the above submission of the Petitioner and the objection of the Respondent on the same. The Commission observes that the Respondent has argued that auxiliary energy consumption ought to be retained at 0.5% as it is in line with the prevailing HERC Regulation 2007 followed by 06.11.2009. The Commission finds it difficult to agree with the Respondent as the RE Regulations were notified by the Commission for the first time on 3<sup>rd</sup> February, 2011. Prior to that there were no RE Regulations notified by this Commission. The Regulations 2007 followed by 06.11.2009 referred to by the Respondent are in fact various orders passed by this Commission and not Regulations.

On the issue of O&M expenses the Commission has considered the arguments of the Petitioner that actual O&M cost may be considered while determining the tariff for the period

commencing 01.04.2012 in view of the fact that extra burden cast upon the Petitioner for O&M of the canal (2 km upstream and 2 km downstream of the power houses as per Irrigation Department condition added after the signing of PPA), and is of the considered view that no relief was granted by the Hon'ble APTEL on this issue though pertaining to the period prior to 1.04.2012 and the Commission, as discussed in Paragraph 7.6 (iv), has also not allowed any additional Capital Cost on account of O&M of the canal as claimed by the Petitioner.

**(iii) In view of the above, the Commission, in line with regulation 30 of the RE Regulations, 2010, has considered auxiliary energy consumption inclusive of transformation losses at 1% for the purpose of tariff determination in the present case i.e. w.e.f 1.04.2012.** Further in line with HERC RE Regulations, 2010 O&M expenses has been considered at Rs. 1.7 Million / MW with an escalation of 5.72% per annum.

### **7.6.3 PLF / CUF**

(i) The Petitioner, on the basis of his submissions that due to silt deposit Canal Closure had to be sought to wash away the silt leading to generation loss of about 6% on annual basis, reduction in water carrying capacity of the Canal, actual average discharge data from 2006 to 2010, sought that a PLF of 56% may be considered by the Commission as done in the case of P&R Gogripur.

Per Contra the Respondent argued that 70% PLF/CUF ought to be retained in line with HERC Regulation 2007 followed by 06.11.2009.

(ii) The Commission finds it difficult to agree with the above submissions of the parties. The Petitioner in their written submission as well as oral arguments failed to convince the Commission regarding the reasons for attaining low PLF. However, there is some merit in the arguments of the Respondent that in case the Petitioner has not been able to achieve the normative PLF it goes only to the discredit of the Petitioner.

The Commission, in order to get clarity on the issue of PLF / CUF examined the water discharge data at the project site since CY 2008 to CY 2012. The Commission observes, from the data obtained from the Irrigation Department, that the average yearly discharge was as under:

Year	Average Discharge (Cusec)
2008	2240
2009	2414
2010	2031
2011	2241
2012	2051

In view of the above the Commission notes that on the basis of the actual water discharge data recorded at the project site and rated head ranging from 2.40 M to 2.90 M i.e. an average head of about 2.43 M, the maximum capacity of the project can be  $127.5$  (Cumec design discharge)  $\times 2.43$  Meters (head)  $\times 0.75$  (average efficiency of generator, turbine, gear box and turbine – generator coupler)  $\times 9.81$  (gravitational factor) i.e.  $2279.53$  KW (2.28 MW). However, the average discharge in the Augmentation Canal from 2008 to 2012 has been only about  $2195.4$  Cusec (62.21 Cumec). Thus the maximum generation achievable by the project could be  $(62.21 \times 2.43 \times 0.75 \times 9.81)$   $1112$  KW (1.11 MW) i.e. about 79 % of

**the design capacity of the project i.e. 1.4 MW each at the two locations.**

**The Commission has considered the submissions of the Petitioner regarding silt deposit and the resultant canal closure to wash away silt as well as reduction in water carrying capacity of the canal including water lost due to seepage and evaporation thereby leading to much lower net discharge and is of the view that while designing the project, except for geological surprises, these should have been examined and appropriately factored in while getting the DPR approved by HAREDA. Hence, at this stage seeking any relief based on such arguments is not tenable.**

**Consequently, the Commission in line with the above discussions has considered CUF / PLF of 70% in line with its order dated 15<sup>th</sup> May, 2007 and 6.11.2009 which was the basis of the PPA as the same predates HERC Regulations, 2010, and has not increased it to 79% based on case specific data keeping in view the fact that due to lower actual discharge the 'head' may also be somewhat lower when compared to the design parameter. Further the Commission is of the view that the ground realities obtaining in the case of P&R micro – hydel project is different from that of the present case and hence while determining case specific tariff the same parameters cannot be applied.**

#### **7.6.4 Return On Equity (ROE):**

(i) The Petitioner has proposed Return on Equity as 19% per annum for the first 10 years (Pre-tax) and 24% per annum from 11<sup>th</sup> year onwards (Pre-tax) based on HERC Regulations, 2010 as against 16% allowed to them by this Commission.

(ii) The Commission has considered the claim of the Petitioner and observes that in the present case as the Commission in its order dated 15.07.2007 and review order dated 3.10.2007 Commission had assured the IPPs that the return on equity allowed to them i.e. 16% shall be

honored for the projects commissioned during the first tariff control period of FY 2007.80 to FY 2011-12. As the project of the Petitioner was commissioned during the first tariff control period ROE for the purpose of tariff determination has been retained at 16%. Further, the Commission observes that in the present case the Commission has retained the same capital cost as considered while passing order dated 15.07.2007 & review order dated 3.10.2007 and has not reduced the same in line with HERC RE Regulations, 2010. **Thus the Commission considers appropriate to treat ROE in a similar manner i.e. in line with the commitment of this Commission mentioned in the order dated 3.10.2007.**

#### **7.6.5 Interest on Long Terms Loan and Working Capital Loans:**

- (i) The Petitioner has claimed Interest Cost based on HERC Regulations 2010 which provides for the 'Interest Rate' of average long term prime lending rate (LTPRL) of State Bank of India (SBI) prevalent during the previous year plus term premium.
- (ii) In view of the above the Petitioner has prayed that, keeping in mind the current interest rate regime, an appropriate interest cost both for the purpose of Term Loan and Working Capital Loan may be considered by this Commission for the purpose of Tariff Determination, and that the interest cost may be considered at 13.75%.
- (iii) The Commission has considered the arguments as well as the counter arguments of the parties. The Commission is of the view that it determining tariff in the present case afresh applicable w.e.f 1.04.2012, hence it will be appropriate to consider Interest Cost based on regulations 13 (2)(b) and 16 (3) of the HERC RE Regulations, 2010. As the interest on term loan is allowed on the normative debt – equity ratio of 70:30 in accordance with regulation 12 and on working capital requirement as computed in accordance with regulation 15(2). The Commission finds no merit in the contention of the Respondent that the Petitioner has neither disclosed the working capital nor had it disclosed what percentage of the project cost was the loan sanctioned as these two parameters would eventually decide the PLR

The relevant HERC RE regulations, 2010 for reckoning with Interest Rate on Term Loan as well as the working Capital Loans are reproduced below:

*“13(2)(b) For the purpose of computation of tariff, the normative interest rate shall be considered as average long term prime lending rate (LTPLR) / Base Rate of State Bank of India (SBI) prevalent during the previous year”.*

*“16.3 Interest on Working Capital shall be at interest rate equivalent to average State Bank of India short term PLR / Base Rate during the previous year.*

**In line with the above, the Commission observes that the SBI prime lending rates during the previous year (FY 2011-12) on long term commercial and industrial loans varied from 13% to 14.75% and the same for short term loans for working capital and CC limits varied from 12.75% to 14.25%. Hence the Commission has considered interest on normative long term loan at the weighted average rate of 14.40 % and average interest rate of 14.39% on normative working capital loan as prevalent in FY 2011-12 i.e. the financial year prior to FY 2012-13 for which the tariff is being determined.**

#### **7.6.6 Capital Subsidy:**

The Commission has examined the issue of subsidy as provided in HERC Regulations, 2010.

The relevant regulation is reproduced below:

*“21. Subsidy or incentive by the Central / State Government. - The Commission shall take into consideration any incentive or subsidy offered by the Central or State Government, including accelerated depreciation benefit if availed by the generating company, for the renewable energy power plants while determining the tariff under these Regulations”.*

Accordingly the Commission has reduced the Capital Subsidy amounting to Rs. 25.60 Millions received by the Petitioner for his two projects i.e. Khukhani & Mussapur from the normative Capital Cost of Rs. 287 Million for the purpose of tariff determination in the present case.

### 7.6.7 Other issues raised by the petitioner:

(i) In view of the commitment of sale of entire power generated by the Petitioner to the Respondent, third party sale and REC benefits cannot be allowed as the Respondents also have an obligation to purchase renewable energy in order to meet their RPO obligation. Even otherwise the Petitioner has signed a long term PPA with the Discoms at the preferential tariff determined by this Commission hence as per the REC mechanism in vogue they are not eligible for REC benefits.

(iii) Regarding waiver of levy of 2% wheeling charges sought by the Petitioner, the Commission, in line with the judgment of the Hon,ble APTEL dated 9.04.2014 in Appeal No. 90 of 2013, allows the same subject to the judgment having attained finality.

(iv) The petitioner had submitted that the rate of depreciation may be adopted in line with the provisions of regulation 14 of the HERC Regulations, 2010 i.e. 7% per annum for the first ten years and remaining depreciation to be spread over the remaining useful life of the project from 11<sup>th</sup> year onwards. The Commission, in view of order dated 15.05 2007 and review order dated 3.10.2007 has retained the rate of depreciation at the same level as considered while passing order dated 15<sup>th</sup> May, 2007 as the same formed the basis of the PPA between the parties.

(v) The Petitioner while seeking deemed generation relied on the Commission's order in the joint petition filed by Solar PV Power Developers in Haryana. The relevant paragraph of the Commission's order is reproduced below:-

*"In order to meet such contingencies the Commission believes that provision for (at the most) 1% i.e. 87.6 hours of the maximum hours in a year i.e. 8760 of backing down should be sufficient to address the concern of the power utilities. Hence the Commission orders that Clause 8.12 & Clause 12.1 of the PPA shall be amended accordingly i.e. any refusal beyond 87.6 hours in a year shall be treated as deemed generation and paid for at the tariff approved by the Commission".*

The contention of the Petitioner based on the above order of this Commission is not applicable in this case given the fundamental difference in solar power projects and hydro power project of the Petitioner.

**7.6.7 Based on the parameters approved by the Commission, the tariff in the present case for both the power plants of the Petitioner i.e. 1.4 MW Khukhani and 1.4 MW Mussapur is determined as under:**

**Tariff (Rs/kWh)**

FY	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	2016-17
Rs/kWh	3.74	3.62	3.50	3.38	3.26
# Levellised Tariff Rs. / kWh (Project life of 35 years at a discounting factor equivalent to interest on long term loan.	2.99				

# levellised tariff is calculated by carrying out levellisation for 'useful life' of the project considering the discounting factor for time value of money. The tariff for FY 2017-18 onwards shall as be as per the tariff calculation sheet attached as Annexure 'A' i.e. per unit tariff component.

All other terms and conditions shall be as per the concluded PPA dated 13<sup>th</sup> August, 2010 approved by the Commission. The Petition (Case No. HERC/PRO- 21 of 2012 & Case No. HERC / PRO - 22 of 2012) are accordingly disposed of.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on July 28, 2014.

**Date: 28/ 07 / 2014**  
**Place: Panchkula.**

**(M.S.Puri)**  
Member

**(Jagjeet Singh)**  
Member

**(R.N. Prasher)**  
Chairman

