

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 250/GT/2014**

**Coram:**

**Shri A.S. Bakshi, Member  
Dr. M. K. Iyer, Member**

**Date of Hearing: 20.5.2016**

**Date of Order : 22.7.2016**

**In the matter of**

Determination of tariff for the period of 2014-19 for Uri-II Power Station

**And in the matter of**

NHPC Ltd  
NHPC Office Complex,  
Sector-33, Faridabad,  
Haryana-121003

**.....Petitioner**

**Vs**

1. Power Development Department  
Government of J&K,  
New Secretariat, Jammu – 180 001
2. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector 6,  
Panchkula – 134 109
3. Punjab State Power Corporation Ltd  
The Mall, Secretariat Complex,  
Patiala – 147 001
4. Uttar Pradesh Power Corporation Ltd  
Shakti Bhawan, 14, Ashok Road,  
Lucknow – 226 001
5. BSES Rajdhani Power Ltd  
BSES Bhawan, Nehru Place,  
New Delhi – 110 019
6. BSES Yamuna Power Ltd  
BSES Bhawan, Nehru Place,  
New Delhi – 110 019
7. Tata Power Delhi Distribution Ltd  
33 KV Sub-station, Hudson Lane, Kingsway Camp,



New Delhi – 110 009

8. Rajasthan Rajya Vidyut Prasaran Nigam Ltd  
Vidyut Bhawan, Janpath,  
Jaipur – 302 205

9. Jaipur Vidyut Vitran Nigam Ltd  
Vidyut Bhawan, Janpath,  
Jaipur – 302 205

10. Jodhpur Vidyut Vitran Nigam Ltd  
New Power House, Industrial Area,  
Jodhpur – 342 003

11. Ajmer Vidyut Vitran Nigam Ltd  
Old Power House, Hatthi Bhatta,  
Jaipur Road, Ajmer – 305 001

12. Uttrakhand Power Corporation Ltd  
Urja Bhawan, Kanwali Road,  
Dehradun – 248 001

13. Engineering Department,  
Union Territory of Chandigarh, Sector 9D,  
Chandigarh – 160 009

...Respondents

**Parties present:**

For Petitioner: Shri Piyush Kumar, NHPC  
Shri A.K. Pandey, NHPC  
Shri Naresh Bahsir, NTPC  
Shri R.B. Sharma, Advocate, BRPL  
Smt. Ranjana Roy Gowai, TPDDL  
Smt. Vasudha Sen, TPDDL  
Smt. Arunima Gautam, TPDDL

**ORDER**

This petition has been filed by the petitioner, NHPC Ltd, for determination of tariff of Uri-II Hydroelectric Project (4 x 60 MW) (the generating station) from 1.4.2014 to 31.3.2019 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (“the 2014 Tariff Regulations”).



2. The generating station is a purely a run-of-the-river type project, with no diurnal pondage for peaking, with provision of 10% overloading on continuous basis. The project was sanctioned by the Central Government on 1.9.2005 at a cost of ₹172479 lakh, including IDC and FC of ₹6661 lakh at February 2005 price level, with scheduled date of completion in 51 months from the date of approval.

3. The actual date of commercial operation of the units and the generating station are as under:

Unit-I	11.10.2013
Unit-II	1.12.2013
Unit-III	11.10.2013
Unit- IV / Generating station	1.3.2014

4. The Commission vide its order 4.2.2016 in Petition No. 156/GT/2013 had approved the annual fixed charges of the generating station for the period from 11.10.2013 to 31.3.2014 as under:

	(₹ in lakh)		
	11.10.2013 to 30.11.2013	1.12.2013 to 28.2.2014	1.3.2014 to 31.3.2014
	(Unit-I and III)	(Unit –II)	(Unit-IV)
Return on Equity	881.72	2340.72	1079.39
Interest on Loan	1038.54	2713.13	1247.87
Depreciation	765.88	2033.03	937.34
Interest on Working Capital	76.58	202.30	93.23
O & M Expenses	299.23	794.37	366.64
<b>Total</b>	<b>3061.93</b>	<b>8083.56</b>	<b>3724.47</b>

6. The petitioner has filed this petition vide affidavit dated 13.8.2014 and has sought approval of tariff in accordance with the provisions of the 2014 Tariff Regulations. Accordingly, the capital cost and the annual fixed charges claimed by the petitioner for the period 2014-19 in this petition are as under:

#### Capital Cost

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	217956.15	233100.76	238890.9	245948.05	246248.05
Add: Additional capital expenditure	15340.48	5790.14	7057.15	300.00	-
Less: De Capitalization	195.87	-	-	-	-



Closing Capital Cost	233100.76	238890.90	245948.05	246248.05	246248.05
Average Capital Cost	225528.46	235995.83	242419.47	246098.05	246248.05

### Annual Fixed Charges

	(₹in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	11522.06	12056.83	12385.01	12572.95	12580.61
Interest on Loan	14665.36	14264.33	13483.54	12494.48	11249.92
Return on Equity	13267.84	13883.63	14261.54	14477.95	14486.77
Interest on Working Capital	1197.52	1233.98	1252.75	1261.14	1256.17
O&M Expenses	5237.58	5585.36	5956.23	6351.72	6773.47
<b>Total</b>	<b>45890.36</b>	<b>47024.14</b>	<b>47339.06</b>	<b>47158.23</b>	<b>46346.94</b>

7. In compliance with the directions of the Commission, the petitioner has filed additional information and has served copies on the respondents. The respondent UPPCL, BRPL and TPDDL has filed the reply in the matter and the petitioner has also filed its rejoinder. The petitioner vide affidavit dated 4.5.2016 has submitted that the RCE with completion cost of ₹2290.02 crore has been approved by the Standing Committee and is pending before the Central Government for approval. Pending submission of approved RCE, we now proceed to examine the claim of the petitioner based on the submissions of the parties and the documents available on record, as discussed in the subsequent paragraphs.

### Capital Cost as on 1.4.2014

8. Clause 3 of Regulation 9 of the 2014 Tariff Regulations provides as under:

*“The Capital cost of an existing project shall include the following:*

- (a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;*
- (b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and*
- (c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”*

9. The annual fixed charges claimed in the petition are based on opening capital cost of ₹217956.15 lakh as on 1.4.2014, as against ₹216222.17 lakh as on 31.3.2014 as admitted by the Commission vide order dated 4.2.2016 in Petition No. 156/GT/2013. Accordingly, the opening capital



cost of ₹216222.17 lakh (on cash basis), after removal of un-discharged liabilities, has been considered as opening capital cost as on 1.4.2014,

### **Actual/ Projected Additional Capital Expenditure during 2014-19**

10. Clause (3) of Regulation 7 of the 2014 Tariff Regulations provides that the application for determination of tariff shall be based on admitted capital cost including any additional capital expenditure already admitted up to 31.3.2014 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2014-15 to 2018-19. Clause 1 and Clause 3 of Regulation 14 of the 2014 Tariff Regulations, provides as under:

#### ***“14. Additional Capitalisation and De-capitalisation:***

*(1) The capital expenditure in respect of the new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

*(i) Undischarged liabilities recognized to be payable at a future date;*

*(ii) Works deferred for execution;*

*(iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;*

*(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and*

*(v) Change in law or compliance of any existing law:*

*Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.*

*14.(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:*

*(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;*

*(ii) Change in law or compliance of any existing law;*

*(iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;*

*(iv) Deferred works relating to ash pond or ash handling system in the original scope of work;*

*(v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;*



(vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;

(vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal / lignite based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;

(viii) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) and due to geological reasons after adjusting the proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;

(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and

(x) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialization of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:

Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2014:

Provided further that any capital expenditure other than that of the nature specified above in (i) to (iv) in case of coal/lignite based station shall be met out of compensation allowance:

Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M), repairs and maintenance under (O&M) expenses and Compensation Allowance, same expenditure cannot be claimed under this regulation.”

11. The year-wise break-up of the projected additional capital expenditure claimed during 2014-19 is detailed as under:

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Proposed additional capital expenditure on gross basis.	15340.48	5790.14	7057.15	300.00	-	<b>19635.65</b>
Proposed de-capitalization	195.87	-	-	-	-	<b>195.87</b>
Net proposed additional capital expenditure	15,144.61	5790.14	7057.15	300.00	-	<b>28291.90</b>



12. The respondents, UPPCL, BRPL and TPDDL has submitted that works deferred can be taken up for execution under Regulation 14(1)(ii), however for the claim of additional capital expenditure for deferred works under Regulation 14(1)(ii) in the petition, the petitioner has not submitted the details of works which were deferred for execution and in absence of the details it is not possible to identify the items under the original scope of works. Hence keeping the presumption that no works in original scope was left, the same is liable to be rejected. In regards the claim for additional capital expenditure under Regulation 14(1)(iii), the respondents have submitted that the procurement of initial capital spares within ceiling limits under Regulation 13 can be taken up, but in absence of the details, it is not possible to identify the items under the original scope of works, hence on the presumption that no works in original scope are left, the same is liable to be rejected. 13. We have examined the matter. The petitioner has claimed capitalization of the expenditure for deferred works under Regulation 14(1)(ii) which are part of the original scope of work already approved by the Commission. The petitioner has claimed a total additional capital expenditure of ₹1849 lakh upto cut-off date (i.e. 31.3.2017) as initial spares under Regulation 14(1)(iii) and the same are within the ceiling norms of 1.5% of the original capital cost in terms of Regulation 8 of the 2009 Tariff Regulations. The petitioner has claimed additional capital expenditure of ₹300 lakh in 2017-18 under Regulation 14(3)(viii) towards side protection work, road pavement work and flood protection works. The petitioner has, vide affidavit dated 4.5.2016 submitted that these are new works and are considered vital for protection of road/channel and development of access to dam as an alternate road for security purpose.

14. Accordingly, based on the submissions of the parties and the documents available on record, the claims of the petitioner for the period 2014-19 as summarized under, are considered and allowed, on prudence check, as detailed below:



2014-15

(₹ in lakh)

Sl. No	Assets/Works	Amount Claimed	Regulation	Justification submitted by the petitioner	Remarks on admissibility	Amount Allowed
A	<b>Balance Major Civil Works under the scope of Lot-1: Civil Contractor</b>	<b>1,686.51</b>				<b>1,686.51</b>
1	<b>DAM</b>					
a	Right Bank protection work above 1300 EL	140.00	14(1)(ii)	This is part of original scope of work. The respondent BRPL,TPDDL has submitted that in absence of the details, keeping the presumption that no works in original scope was left, the same is liable to be rejected	Since, these are deferred works and form the part of the original scope of work. The expenditure claimed is allowed under Regulation 14 (1)(ii) of 2014 Tariff Regulations	140.00
b	Architectural Works	75.00				75.00
c	Other Miscellaneous works	154.00				154.00
d	Illumination	80.00				80.00
2	<b>Open Channel and desilting basin</b>					-
a	Grass Turfing along cut slope of open channel	103.20				103.20
b	Cath water drain along berm of open channel	59.20				59.20
c	Illumination	80.00				80.00
d	Parapet alongwith open channel	42.46				42.46
3	<b>Forebay silt flushing and surplus escape</b>					-
a	Grass Turfing along cut slope of surplus	27.64				27.64
b	Right bank Protection of open channel berm along the river	30.20				30.20
4	<b>Head Race Tunnel (finishing around plug)</b>	8.30				8.30
5	<b>HRT Adits</b>					-
a	Overt lining in Adit #3	32.88				32.88
6	<b>Pressure shaft and penstock</b>					-
a	Overt lining in Adit to pressure shaft top	89.75				89.75
b	Consolidation grouting of Adit to pressure shaft top	40.36				40.36
c	Additional rock protection in poor reach of adit to pressure shaft	29.55				29.55
7	<b>Pothead yard</b>					-
a	Architectural work	74.55	74.55			
b	Balance fencing	21.12	21.12			
c	Balance Hatch cover	6.78	6.78			
8	<b>Downstream Surge Galary</b>		-			
a	Balance overt lining of DSSG	61.12	61.12			
b	Balance invert lining of DSSG	69.62	69.62			
c	Balance invert lining of Adit to DTGH	20.53	20.53			





d	Balance contact and consolidation grouting	25.42				25.42
e	Other Micilleneous works	17.82				17.82
9	<b>Power House Complex</b>					-
a	Balance Concrete overt lining of MAT	50.00				50.00
b	Architectural Work	206.65				206.65
c	Balance Rock protection Work	27.01				27.01
d	Balabce Hatch Cover	25.00				25.00
10	<b>Upstream surge shaft</b>					-
a	safety net over surge shaft top	6.02				6.02
11	<b>Tail Race Tunnel</b>					-
a	Balance Misc. works at Plug	6.10				6.10
12	<b>TRT Adit</b>	-				-
a	Invert Lining	41.27				41.27
13	<b>TRT Outlet</b>	-				-
a	Rock paving along the formation slope of nalaha	34.96				34.96
B	<b>Balance Major Civil Works not under the scope of Lot-1: Civil Contractor</b>	<b>5,270.71</b>				<b>5,270.71</b>
1	<b>DAM</b>					-
a	Plunge Pool Left Bank protection	1,703.00	14(1)(ii)	The work is in progress w.e.f December,2013 and is likely to be completed. This is part of original scope of work.	These are deferred works within the original scope of work. Hence allowed under Regulation 14 (1)(ii) of 2014 Tariff Regulations	1,703.00
b	Plunge Pool Right Bank protection	1,052.00		1,052.00		
c	Construction of boundry wal from RD 0 to 1281 m along NH-1A in Salamabad	40.00		40.00		
d	Providing Chain link fencing from NH-1A to Dachi bridge.	10.00		10.00		
e	Shortcrete work on right bank below EL 1300 at Dam axis	-		-		
2	<b>Power House</b>	-		-		
a	Steel ribs and backfill concrete in poor reach of MAT	216.00		216.00		
b	Wall cladding in Powerhouse	2.50		2.50		
c	Suspended ceiling in Transformer Hall	66.00		66.00		
d	Suspended ceiling in MIV Hall	29.25		29.25		
e	Gate at Main Access	6.00	6.00			



	tunnel Entrance and DSSG					
f	concrete of MAT road	33.00				33.00
g	Gate at TC Hall Entrance	3.00				3.00
h	Fencing along MAT road	16.50				16.50
i	Furniture for conference hall	20.00				20.00
j	Furniture for office	20.00				20.00
k	Furniture for Control Room	10.00				10.00
l	Utensil and pantry accessories for PH Pantry	0.50				0.50
m	security post and gate at MAT road	9.00				9.00
3	<b>TRT Outlet</b>					-
a	Providing Toe protection along the nallah embankment/beam at TRT outfall	8.50				8.50
b	Construction of check dam at TRT outfall	22.00				22.00
c	Providing Protection to the L/S Hill slope beyond wier portion of TRT outfall	5.00				5.00
d	Providing fencing at TRT outlet area	12.00				12.00
e	Providing protection to the Right bank of nallah along NH-1A	8.00				8.00
f	Providing steel gate at Adit-4 Portal	2.50				2.50
4	<b>Surge Shaft Area</b>					-
a	Providing fencing at surge shaft	5.00				5.00
5	<b>Building Works</b>	-				-
a	Supply, Installation, testing and commissioing of 3 nos. electronic boom barrier and tyre ripper.	20.00				20.00
b	Development of park at Nowpora	30.00				30.00
c	Providing storm water drains / Nallah diversion works at Nowpora/Salamabad	10.00				10.00
d	Const. of boundary wall for VIP guest house	15.00				15.00
e	Const. of boundary wall for Office building at Nowpora.	30.00				30.00
f	Construction of retaining wall and breast wall near petrol pump - backside of A-type quarters and	5.00				5.00



	steps etc. at Nowpora.					
g	Chequered platework around the sub station	8.00				8.00
h	Providing and fixing sign boards at Nowpora/Salamabad/dam site/powerhouse site	5.00				5.00
i	Providing platforms / retaining walls / protection works for Nowpora / Salamabad	8.00				8.00
j	Check post, Petrol pump office, Telephone exchange and Pump station etc.	7.00				7.00
k	Providing wearing coat over existing internal WBM roads at Nowpora/Salamabad	333.41				333.41
l	Residential Building D-Type	157.31				157.31
m	Residential Building Field Hostel	327.95				327.95
n	Non-executive Club	54.94				54.94
o	Community Hall	112.80				112.80
p	dachi	464.53				464.53
q	Construction of VIP Guest House	228.75				228.75
r	Construction of Dispensary	95.24				95.24
s	Construction of Bank & Post office	30.31				30.31
t	Raising boundary wall and barbed wire fencing at Nowpora	2.72				2.72
u	Drilling of bore well no.-II in Nowpora complex.	25.00				25.00
6	<b>Roads</b>	-				-
a	Side protection ,WBM and concrete pavement road from NH-1A to Dam site at left bank along Power channel	<b>100.00</b>	14(1)(ii)	This is part of original scope of work.		100.00
7	<b>Bridges</b>	-				-
a	New bridges over river Jhelum at Bandi	<b>200.80</b>	14(1)(ii)	This is part of original scope of work.	These are deferred works within the original scope of work. Hence allowed under Regulation 14 (1)(ii) of 2014 Tariff Regulations	200.80
8	<b>HM Works</b>	<b>1,362.79</b>				1,362.79
a	Oil Filtration Unit	10.00				10.00
b	Supply , installation,testing & commissioning of TRCM	667.84				667.84
c	Disposal vehicle of TRCM	10.00	14(1)(ii)	This is part of original scope of work.		10.00
d	Mandatory spares to be supplied by the contractor	43.00			43.00	
e	Balance E&M Works	200.99				200.99



f	11 KV Line-3 from Salamabad Sub Station to DAM & Nowpora colony	68.60				68.60
g	1 No. 500 KVA Transformer for DAM	7.00				7.00
h	Shifting of 33 KV line at Jabla Nala	10.00				10.00
i	Expansion of EPABX Nowpora Colony and other telephone accessories	12.00				12.00
j	Internal Electrification of Permanent Buildings- Residential D-Type	9.62				9.62
k	Internal Electrification of Permanent Buildings- Residential - VIP Guest House	11.27				11.27
l	Internal Electrification of Permanent Buildings- Residential - Field Hostel	23.39				23.39
m	Internal Electrification of Permanent Buildings- Non Residential - Administrative Block	28.00				28.00
n	Internal Electrification of Permanent Buildings- Non Residential - Dispensary	4.08				4.08
o	Internal Electrification of Permanent Buildings- Non Residential- Record Room	2.00				2.00
p	Internal Electrification of Permanent Buildings- Non Residential -Non- Executive Club	5.00				5.00
q	Purchase of Telecommunication material	5.00				5.00
r	TV Sets	8.00				8.00
s	Air Conditioners for Admin Block, VIP Guest House & Dam Control Room	15.00				15.00
t	Supplying & Laying of Under ground Telephone & Electrical Cables	39.50				39.50
u	External illumination of Power House area (From NH to entrance gate of Draft Tube Gate Hall)	10.00				10.00
v	High Mast Light at Colony & Dam	15.00				15.00



w	Heating Arrangement (Instant Gysers, Storage Gysers, Blowers, Oil Heaters etc)	5.00				5.00
x	Main water supply arrangement at project Headquarters/Colony/Dam/Power House area.	5.00				5.00
y	Fire fighting equipment.	30.00				30.00
z	Quality control Laboratory/equipments.	100.00				100.00
z1	Purchase of furniture and fixtures for Offices, Guest House and Field Hostel.	10.00				10.00
z2	Dam control room /canteen /furniture and fixture	7.50				7.50
g	<b>Plants and Equipments</b>	<b>103.00</b>				103.00
a	Ambulance (Fully equipped)	10.00	14(1)(ii)	This is part of original scope of work.		10.00
b	Bus (41 Seater) Make-TATA -02 No.	34.00				34.00
c	Bus (32 Seater) Make-TATA -01 No.	14.00				14.00
d	Truck, 10T	14.00				14.00
e	Fire tender	31.00				31.00
10	<b>Computers</b>	<b>222.40</b>				<b>222.40</b>
a	135 Nos. Computers	75.00	14(1)(ii)	This is part of original scope of work. The respondent UPPCL, BRPL and TPDDL has submitted that in absence of the details, keeping the presumption that no works in original scope was left, the same is liable to be rejected	Computers and IT equipments are deferred works and form the part of the original scope of work. Hence allowed under Regulation 14 (1)(ii) of 2014 Tariff Regulations	75.00
b	Blade Server 4 Nos. with RACK	30.00				30.00
c	Note Book PC / Laptop	1.60				1.60
d	Printers Network / Scanner - A3 Size	17.00				17.00
e	Printers Individual	2.50				2.50
f	Firewall - Networking Security - #3 Years Subscription with RACK & UPS	10.00				10.00
g	Networking Switches / RACKS - for ADMIN Block	25.00				25.00
h	Media Convertors & LAN Extenders, Switch / HUB	2.00				2.00
i	OFC Equipment at Nowpora	2.00				2.00
j	Optical Fibre Cable at Nowpora	1.00				1.00
k	Wire Less System	5.00				5.00
l	Replacement of Existing Switches	2.00				2.00
m	Networking Cables / Cabling Accessories	1.00				1.00
n	Other Networking Items	5.00				5.00
o	Photo Copier	2.50	2.50			
p	Auto CAD	5.00	5.00			



q	Windows Server o/c	2.00				2.00
r	User Licenses	3.30				3.30
s	Miscellaeous Software	3.00				3.00
t	Online UPS 50 * 2 KVA	25.00				25.00
u	Miscellaeous Items	2.50				2.50
11	<b>Provision for Initial Spares proposed for procurement till cut off date</b>	<b>51.00</b>				<b>51.00</b>
	<b>E&amp;M Works</b>	-				-
a	6 nos. of Motorized chain block of one ton capacity for existing Auto backwash system	1.00		This is part of original scope of work.		1.00
b	Spares of drainage & dewatering system including flood dewatering pumps with accessories	20.00				20.00
c	DGA testing instrument	30.00	14(1)(iii)	For testing of oil samples of GSU Transformers, no DGA testing instrument is available at power station. As the power station has total 13 nos. of 400 KVA GSU including one spare transformer, DGA analysis of the oil is required to be done for monitoring healthiness of transformers. One no. DGA test instrument is as such proposed to be purchased for testing of oil samples for dissolved gas analysis.	These are the initial spares claimed by the petitioner and fall within the ceiling limit of 1.5% of the Capital Cost as per Regulation 8 of 2009 Tariff Regulations. Hence, the expenditure under the initial spares are allowed under 14 (1)(iii) of 2014 Tariff Regulations.	30.00
d	<b>HM Works</b>	-				-
d4	Electrical spares for control panels (Relays, contactor, power supply units, water level indicators etc.)	1.00	14(1)(ii)	The spares amounting to Rs. 43.00 Lacs has been supplied to the project by HM contractor as per terms & conditions of the HM Contract and this is over and above the spares proposed for		1.00



				procurement.		
12	<b>Security Equipments for CISF as per IB recommendation</b>	<b>189.00</b>				189.00
a	CCTV Camera & Monitoring equipments	90.00	14(1)(ii)	As per IB recommendation. The respondent BRPL, TPDDL has submitted that in absence of the details, keeping the presumption that no works in original scope was left, the same is liable to be rejected	The petitioner vide affidavit dated 4.5.2016 has submitted that this said equipments/assets form part of original scope of works. The petitioner vide affidavit dated 4.5.2016 has submitted the relevant extracts of the IB Industrial Security Inspection Reports, recommending the deficiencies in safety and equipments. In view of the IB recommendations and security aspects, the Security equipments for CISF are allowed	90.00
b	XBIS/ Portable Baggage Scanner	60.00				60.00
c	Riot Drill Equipments	2.00				2.00
d	Gas Gun with Accessories	1.50				1.50
e	Blullet Proof Jackets	10.50				10.50
f	BP Head Gear	10.50				10.50
g	SMG MP-05 A3	4.50				4.50
h	Other Security Gadgets	10.00				10.00
	<b>Total additional capital expenditure claimed for FY 2014-15</b>	<b>9187.21</b>				
	<b>Total Allowed</b>					<b>9187.21</b>

### 2015-16

(₹ in lakh)

Sl. No.	Assets/Works	Amount Claimed	Regulation under which claimed	Justification submitted by the petitioner	Remarks on admissibility	Amount Allowed
A	LAND	1,091.06	14(1)(ii)	This is part of original scope of work.	These are deferred works within the original scope of work. Hence allowed under Regulation 14 (1)(ii) of 2014 Tariff Regulations	1,091.06
B	<b>Balance Major Civil Works not under the scope of Lot-1: Civil Contractor</b>	<b>1,734.63</b>				<b>1,734.63</b>
1	<b>DAM</b>	-				-
a	Construction of boundry wal from RD 0 to 1281 m along NH-	85.00	14(1)(ii)	This is part of original scope of work. The respondent	These are deferred works and are the part of the original scope of works allowed by the	85.00



	1A in Salamabad		BRPL, TPDDL has submitted that in absence of the details, keeping the presumption that no works in original scope was left, the same is liable to be rejected	Commission. Hence allowed under Regulation 14 (1)(ii) of 2014 tariff regulations	
b	Construction of Storeshed and other misc. works	50.00			50.00
c	Shortcrete work on right bank below EL 1300 at Dam axis	100.00			100.00
d	construction of catch water drain above EL 1300 m road.	50.00			50.00
2	<b>Power House</b>	-			-
a	Wall cladding in Powerhouse	117.50			117.50
b	Protection of DTGH /MAT area	104.31			104.31
c	concrete of MAT road	-			-
d	concrete of DTGH road	42.90			42.90
e	Fencing along NH -1 above MAT road	16.50			16.50
f	Misc. works	5.48			5.48
g	landscaping and beautification at portal	5.00			5.00
3	<b>TRT Outlet</b>	-			-
a	Providing protection to the Right bank of nallah along NH-1A	4.00			4.00
b	Disel dewatering pumps and its accessories for dewatering of seepage from Adit#4 pilot gate	17.00			17.00
4	<b>Surge Shaft Area</b>	-			-
a	Land scaping and beutification of the area aroud surge shaft	5.00			5.00
b	Protection work of approch road to surge shaft	9.00			9.00
c	Construction of CISF barrac at surge shaft	80.00			80.00
5	<b>Building Works</b>	-			-
a	Construction of children park at salamabad	30.00			30.00
b	Providing storm water drains / Nallah diversion works at Nowpora/Salamabad	15.00			15.00
c	Construction of CISf accommodations/quar ter guard/Bunkers at Nowpora & Salamabad.	500.00			500.00
d	Construction of canteen/record room at salambad /nowpora	25.00			25.00
e	Construction of	100.00			100.00





	workshop/ store at Nowpora/Salamabad				
f	Const. of boundary wall of Bank & Post office in Nowpora colony	15.00			15.00
g	Const. of boundary wall of Nursery school	6.00			6.00
h	Construction of retaining wall and breast wall near petrol pump - backside of A-type quarters and steps etc. at Nowpora.	10.00			10.00
i	Providing consultancy services for investigation, planning, design for restoration of collapsed portion of the permanent bridge across river Jhelum near Bandi	15.50			15.50
j	RCC water tank platform for C-type ,D-type,D-spl.,E-type Quarters	25.44			25.44
k	Chequered platework around the sub station	-			-
l	Development of Play Ground at Nowpora	40.00			40.00
m	Construction of view points at dam/power house/Nowpora/salam bad	25.00			25.00
n	Construction of quarter guard for CISF	14.00			14.00
o	Rain water harvesting	20.00			20.00
p	Providing Parking sheds at Nowpora/Salamabad	50.00			50.00
q	Providing and fixing sign boards at Nowpora/Salamabad/d am site/powerhouse site	5.00			5.00
r	Providing platforms / retaining walls / protection works for Nowpora / Salamabad	7.00			7.00
s	Installation of sewage treatment plant at Uri-II residential cum office complex.	70.00			70.00
t	Development of landscaping/horticulture at Nowpora/Salamabad.	70.00			70.00
6	<b>Roads</b>	-			-



	Side protection ,WBM and concrete pavement road from NH-1A to Dam site at left bank along Power channel	264.70	14(1)(ii)	This is part of original scope of work.	These are deferred works within the original scope of work. Hence allowed under Regulation 14 (1)(ii) of 2014 Tariff Regulations	264.70
7	<b>Bridges</b>	-				-
	New bridges over river Jhelum at Bandi	216.00	14(1)(ii)	This is part of original scope of work.	These are deferred works within the original scope of work. Hence allowed under Regulation 14 (1)(ii) of 2014 Tariff Regulations	216.00
C	<b>HM Works</b>	<b>839.49</b>				<b>839.49</b>
1	Log Boom for the Reservoir	100.00	14(1)(ii)	This is part of original scope of work. The respondent BRPL, TPDDL has submitted that in absence of the details, keeping the presumption that no works in original scope was left, the same is liable to be rejected	These are deferred works within the original scope of work. Hence allowed under Regulation 14 (1)(ii) of 2014 Tariff Regulations	100.00
2	Balance E&M Works	218.01				218.01
3	security & surveillance system for Power House	115.98				115.98
4	Re-electrification of Bandi Colony	15.00				15.00
5	External illumination of Nowpora Colony and Salamabad Complex	35.00				35.00
6	Internal Electrification of Permanent Buildings- Non Residential- Bank & Post Office	3.00				3.00
7	Purchase of Telecommunication material	10.00				10.00
8	Air Conditioners for Admin Block, VIP Guest House & Dam Control Room	5.00				5.00
9	Heating Arrangement (Instant Gysers, Storage Gysers, Blowers, Oil Heaters etc)	5.00				5.00
10	Main water supply arrangement at project Headquarters/Colony/ Dam/Power House area.	50.00				50.00
11	Water purification/treatment.	5.00				5.00
12	Fire fighting equipment.	10.00				10.00
13	Medical equipments for dispensary.	30.00				30.00
14	Recreation facility	30.00				30.00
15	Developments of fountains in Nowpora	25.00				25.00



	Colony					
16	Quality control Laboratory/equipments	10.00				10.00
17	Purchase of furniture and fixtures for Offices, Guest House and Field Hostel.	150.00				150.00
18	Technical report, Photographic records, completion report etc.	7.50				7.50
19	Flood Alarming system	15.00				15.00
D	<b>Plants and Equipments</b>	<b>361.35</b>				<b>361.35</b>
1	Wheel Dozer/ Wheel Loader 100-150 HP	60.00				60.00
2	Crane (Mobile) 22 MT (RT)	115.00				115.00
3	Crane (Pick & Carry) 10-12 MT- 1 No.	18.00				18.00
4	Water Tanker (10/12 KL) - 1 Nos.	18.00				18.00
5	Tipper 4.5 Cum - 2 Nos.	35.00				35.00
6	M&M Scorpio 4 WD	14.00				14.00
7	Tat safari Storme 4 WD	16.00				16.00
8	Workshop Equipment	6.00				6.00
9	Submersible pump 15 HP	3.00				3.00
10	Submersible pump 25 HP	3.50				3.50
11	Submersible pump 50 HP	5.00				5.00
12	Grout Pump 10 Kg/cm2	8.50				8.50
13	Motor Boat, 06 STR Fiber	10.00	14(1)(ii)	This is part of original scope of work. The respondent BRPL,TPDDL has submitted that in absence of the details, keeping the presumption that no works in original scope was left, the same is liable to be rejected	These are deferred works within the original scope of work. Hence allowed under Regulation 14 (1)(ii) of 2014 Tariff Regulations	10.00
14	Additional Computer Required & UPS	9.60				9.60
15	Note Book PC / Laptop	0.75				0.75
16	Printers Network / Scanner - A3 Size	5.00				5.00
17	Printers Individual	5.00				5.00
18	Media Convertors & LAN Extenders, Switch / HUB	2.00				2.00
19	OFC Equipment at Nowpora	2.00				2.00
20	Optical Fibre Cable at Nowpora	1.00				1.00
21	Wire Less System	1.00				1.00
22	Replacement of Existing Switches	2.00				2.00
23	Networking Cables / Cabling Accessories	2.00				2.00
24	Other Networking Items	1.00				1.00



25	Photo Copier	2.50				2.50
26	Miscellaeous Software	3.00				3.00
27	Online UPS 50 * 2 KVA	10.00				10.00
28	Miscellaeous Items	2.50				2.50
E	<b>Provision for Initial Spares proposed for procurement till cut off date</b>	<b>610.00</b>				<b>610.00</b>
1	<b>E&amp;M Works</b>	-				-
a	Spares for Brake and Jack System including pump motor set	5.00	14(1)(iii)	No spares for Brake & Jack system are available. Spares of Brake & Jack System are essential for meeting contingent requirement to ensure smooth operation of Power Station.	These are the initial spares claimed by the petitioner and fall within the ceiling limit of 1.5% of the Capital Cost as per Regulation 8 of 2009 Tariff Regulations. Hence, the expenditure under the initial spares are allowed under 14 (1)(iii) of 2014 Tariff Regulations.	5.00
b	Spares for Excitation System including electronic cards	40.00		Additional spares of excitation system are essential for meeting contingent requirement to ensure smooth operation of Power Station. Also, the power station is situated in remote location.		40.00
c	Spares for Main Inlet Valve & By-pass assembly including spares for power pack	5.00		Additional spares of MIV are required for meeting contingent requirement to ensure smooth operation of Power Station. Also, the power station is situated in remote location.		5.00
d	Moving Labyrinth seal (Upper & Lower) for Runner	10.00		Additional labyrinth seals are essential for meeting contingent requirement to ensure smooth operation of Power Station. location.		10.00
e	Turbine Guide Bearing shell (01 sets)	30.00		At present only 1 set of Turbine Guide Bearing pads is available as spare . In Uri-II power station,		30.00



				there are 4 units for which one additional set of guide bearing pads is required. Also, the power station is located in remote and disturbed area. In view of this, proposed additional spares of Turbine Guide Bearing are essentially needed for meeting contingent requirement to ensure smooth operation of Power Station.	
f	3 sets of Shaft seal pump with motor provided for shaft seal cooling arrangement	15.00		No spare Shaft seal pump with motor including coupling is available as spare. As such 3 sets of Shaft seal pump with motor including coupling are proposed to be purchased for smooth operation of power house.	15.00
g	Spares of Ventilation System	5.00		Additional spares of HVAC system are required for meeting contingent requirement to ensure smooth operation of Power Station.	5.00
h	Spares of Control and Protection system including relays	20.00		Additional spares of Control and Protection system including relays are required for meeting contingent requirement to ensure smooth operation of Power Station.	20.00
i	Spares of Governor (Hydraulic part) and OPU system	25.00		Additional spares of Governor and OPU system are required to meet the contingent requirement to ensure smooth	25.00



				operation of Power Station.	
j	Spares of Shaft seal arrangement	10.00		Supplied mandatory spares of Shaft sleeve Drum have already been used due to wear & tear in the existing drums. The new proposed spares are essential to meet the contingent requirement to ensure smooth operation of Power Station.	10.00
k	Spares of drainage & dewatering system including flood dewatering pumps with accessories	60.00		Additional spares of Drainage and dewatering system are essential for meeting contingent requirement to ensure smooth operation of Power Station. Also, the power station is situated in remote location.	60.00
l	Lifting and handling arrangement for power house drainage and dewatering system	20.00		To facilitate easy and early restoration of drainage and dewatering pumps during their maintenance, provision of lifting and handling arrangement for power house drainage and dewatering system is essentially required.	20.00
m	Spares for fire fighting system	5.00		In addition to the available spares, additional portable fire extinguishers are needed for meeting fire fighting capability in power house complex for its safety purposes.	5.00
n	Spares for EOT cranes	25.00		Additional spares of EOT cranes are required for meeting contingent	25.00



				requirement to ensure smooth operation of Power Station. Also, the power station is located in remote and disturbed area.		
o	One complete unit generator phase assembly excluding circuit breaker of GIS	300.00		The proposed spare is proposed to be purchased in view of its repeated failures and as such it is proposed to be required for avoiding outage of unit due to its failure.		300.00
p	Spares of Generator Transformer	10.00		The additional spares are required to meet the contingent requirement to ensure smooth operation of Power Station.		10.00
2	<b>HM Works</b>					-
a	Motors for hoists.	2.00	14(1)(ii)	The spares amounting to `43.00 Lacs has been supplied to the project by HM contractor as per terms & conditions of the HM Contract and this is over and above the spares proposed for procurement.		2.00
b	Gearbox for hoists.	2.00				2.00
c	Hydraulic pump for radial gates.	3.00				3.00
d	Rubber seal corner and bottom seal of different gates	4.00				4.00
e	Electrical spares for control panels (Relays, contactor, power supply units, water level indicators etc.)	4.00				4.00
f	Wire rope for HR hoist, surge shaft hoist, 40 T Gantry crane, 65T EOT crane.	5.00				5.00
g	Special nut and bolts for SFT bonnet cover, Pressure shaft man hole and different fasteners for all hoists.	4.00				4.00
h	Brake assembly of Electromagnetic and thrustor brakes.	1.00				1.00
	<b>Total additional capital expenditure claimed for FY 2015-16</b>	<b>5117.23</b>				
	<b>Total Allowed</b>					<b>5117.23</b>



**2016-17**

(₹ in lakh)

Sl. No	Assets/Works	Amount Claimed	Regulation under which claimed	Justification submitted by the petitioner	Remarks on admissibility	Amount Allowed
A	<b>Environment &amp; Ecology</b>	<b>1143.91</b>		The projected amount under this head is an additional amount which has been created based on extension plan of CAT plan proposed by Forest department and increase in scope of work of fishery intimated by fishery department during meeting of Environmental monitoring committee held in December'2013. The differential amount w r. t RCE has been capitalised. The petitioner vide affidavit dated 4.5.2016 submitted that it has made this provision of ₹1336.67 lakh for CAT plant on demand from Forest Department, Fishery Department and other J&K departments out of which ₹1135.15 lakh has been claimed and balance shall be met out from revenue budget and this amount is not the part of original scope of work, but part of the RCE.	Considering the fact that the work do not form part of the original scope of work and form part of RCE (which is still pending approval). The expenditure claimed is not allowed. However, the same will be considered after submission of the RCE by the petitioner.	<b>7.76</b>
1	Catch Area Treatment Plan	161.13	14(1)(ii)			0.00
2	Fisheries Development	447.40	14(1)(ii)			0.00
3	Public health Management System	65.00	14(1)(ii)			0.00
4	Provision of LPG and Energy Conservation Measures	136.63	14(1)(ii)			0.00
5	Restoration of Muck Disposal Sites	184.50	14(1)(ii)			0.00
6	Landscaping and restoration of quarries and construction areas	71.00	14(1)(ii)			0.00
7	Creation of Green Belt around Reservoir periphery and Voluntary Afforestation	32.73	14(1)(ii)			0.00
8	Solid Waste Management	30.00	14(1)(ii)			0.00
9	Disaster Management Plan	7.76	14(1)(ii)			0.00
10	Environmental Studies	7.76	14(1)(ii)	This is part of original scope of work.	These are deferred works within the original scope of work. Hence allowed under Regulation 14 (1)(ii) of 2014 Tariff Regulations	7.76





<b>B</b>	<b>Balance Major Civil Works not under the scope of Lot-1: Civil Contractor</b>	<b>2,547.75</b>				<b>2,547.75</b>
1	<b>Power House</b>	<b>55.00</b>	14(1)(ii)	This is part of original scope of work.	These are deferred works within the original scope of work. Hence allowed under Regulation 14 (1)(ii) of 2014 Tariff Regulations	<b>55.00</b>
a	Waiting room at MAT Portal	25.00				25.00
b	Civil Maintainance office at Powerhouse	25.00				25.00
c	Misc. works	5.00				5.00
2	<b>Building Works</b>	<b>1,240.82</b>				<b>1,240.82</b>
a	Development of park at Nowpora	57.45				57.45
b	Construction of executive club at Nowpora.	200.00				200.00
c	Construction of CISf accommodations/quarter guard/Bunkers at Nowpora & Salamabad.	500.00				500.00
d	Construction of workshop/ store at Nowpora/Salamabad	100.00				100.00
e	Bench Development for CISF accomodation / others.	28.00				28.00
f	Construction of retaining wall and breast wall near petrol pump - backside of A-type quarters and steps etc. at Nowpora.	5.00				5.00
g	Providing wooden fencing at all Quarters of Nowpora Colony	50.00				50.00
h	Swimming pool at Nowpora.	50.00				50.00
i	Auditorium/hall	100.00				100.00
j	Providing plateforms / retaining walls / protection works for Nowpora / Salamabad	5.00				5.00
k	Residential Building A-Type	118.49				118.49
l	Construction of bench protection wall for development of benches for water tank and CISF Building	26.88				26.88
3	<b>Roads</b>	<b>1,251.93</b>				<b>1,251.93</b>
a	Road at right bank from Bandi for Dachhi	613.28				613.28
b	Realignment of road from Dachhi Bridge to existing road.	41.68				41.68
c	Road to Bandi Colony from Bandi Bridge	36.47	36.47			



d	Surge Shaft Road - Pavement concrete at Surge Shaft road	36.39				36.39
e	11 KV Line-2 from Pot Head Yard to Salamabad Sub Station	150.00				150.00
f	Internal Electrification of Permanent Buildings- Residential A-Type	11.11				11.11
g	Internal Electrification of Permanent Buildings- Residential- CISF Barrack	18.00				18.00
h	Internal Electrification of Permanent Buildings- Non Residential- Executive Club	5.00				5.00
i	Purchase of Telecommunication material	5.00				5.00
j	Heating Arrangement (Instant Gysers,Storage Gysers,Blowers,Oil Heaters etc)	5.00				5.00
k	Main water supply arrangement at project Headquarters/Colony/ Dam/Power House area.	45.00				45.00
l	Water purification/treatment.	5.00				5.00
m	Fire fighting equipment.	10.00				10.00
n	Medical equipments for dispensary.	20.00				20.00
o	Recreation facility	45.00				45.00
p	Developments of fountains in Nowpora Colony	25.00				25.00
q	Quality control Laboratory/equipments	20.00				20.00
r	Purchase of furniture and fixtures for Offices, Guest House and Field Hostel.	150.00				150.00
s	Publicity & Information center	10.00				10.00
C	<b>Plants and Equipments</b>	<b>80.55</b>				<b>80.55</b>
1	Tata 407 (New Work)	12.00				12.00
2	Computers (32 Nos)	19.20				19.20
3	Additional Computer Required & UPS	9.60				9.60



4	Note Book PC / Laptop	0.75				0.75
5	Printers Network / Scanner - A3 Size	5.00				5.00
6	Printers Individual	5.00				5.00
7	Media Convertors & LAN Extenders, Switch / HUB	2.00				2.00
8	OFC Equipment at Nowpora	2.00				2.00
9	Optical Fibre Cable at Nowpora	1.00				1.00
10	Wire Less System	1.00				1.00
11	Replacement of Existing Switches	2.00				2.00
12	Networking Cables / Cabling Accessories	2.00				2.00
13	Other Networking Items	1.00				1.00
14	Photo Copier	2.50				2.50
15	Miscellaneous Software	3.00				3.00
16	Online UPS 50 * 2 KVA	10.00				10.00
17	Miscellaneous Items	2.50				2.50
D	<b>Provision for Initial Spares proposed for procurement till cut off date</b>	<b>1,187.00</b>				<b>1,187.00</b>
1	<b>E&amp;M Works</b>	-				-
a	Spares for Brake and Jack System including pump motor set	3.00		No spares for Brake & Jack system are available. Spares of Brake & Jack System are essential for meeting contingent requirement to ensure smooth operation of Power Station.		3.00
b	Spares for Excitation System including electronic cards	30.00	14(1)(iii)	Additional spares of excitation system are essential for meeting contingent requirement to ensure smooth operation of Power Station. Also, the power station is situated in remote location.	These are part of initial spares and net initial spares upto cut-off date falls under the ceiling norms as per 2009 tariff regulations. Hence, the initial spares claimed are allowed under clause 14 (1)(iii) of 2014 Tariff Regulations	30.00
c	Spares for Main Inlet Valve & By-pass assembly including spares for power pack	10.00		Additional spares of MIV are required for meeting contingent requirement to ensure smooth operation of Power Station. Also, the power station is situated in remote		10.00



				location.	
d	Runner Assembly alongwith Cone(01 no.)	800.00		<p>One Spare runner is available at Uri-II Power Station as on date. However, keeping in view the remoteness of the Power Station &amp; frequent road block during rainy season/ snow period, the timely availability of the repaired runner may become difficult. Hence, one more spare runner is required to be purchased to ensure timely replacement of runner during capital maintenance of Unit. Price has been estimated considering unit rate of runner supplied by M/s Alstom against Uri-II contract agreement for supply and including price variation and applicable taxes.</p>	800.00
e	Moving Labyrinth seal (Upper & Lower) for Runner	11.00		<p>Additional labyrinth seals are essential for meeting contingent requirement to ensure smooth operation of Power Station. location.</p>	11.00
f	Turbine Guide Bearing shell (01 sets)	20.00		<p>At present only 1 set of Turbine Guide Bearing pads is available as spare . In Uri-II power station, there are 4 units for which one additional set of guide bearing pads is required. Also, the power station is located in remote and disturbed area. In view of this, proposed additional spares of Turbine Guide Bearing are</p>	20.00



				essentially needed for meeting contingent requirement to ensure smooth operation of Power Station.	
g	4 complete sets of Auto backwash filter complete with instrumentation, piping and other accessories	50.00		No spares for auto backwash filter are available except filter element. Spares are essential for meeting contingent requirement to ensure smooth operation of Power Station.	50.00
h	3 sets of Shaft seal pump with motor provided for shaft seal cooling arrangement	10.00		No spare Shaft seal pump with motor including coupling is available as spare. As such 3 sets of Shaft seal pump with motor including coupling are proposed to be purchased for smooth operation of power house.	10.00
i	Spares of Vibration Monitoring system including electronic cards	50.00		No spares for Vibration monitoring system are available. Spares for Vibration monitoring system are needed for meeting contingent requirement to ensure smooth operation of Power Station as monitoring of vibration parameter of various components is critical for healthy operation of the machines.	50.00
j	Spares of Control and Protection system including relays	25.00		Additional spares of Control and Protection system including relays are required for meeting contingent requirement to ensure smooth operation of Power Station.	25.00
k	Fixed Labyrinths (04 sets of Top & Bottom)	20.00		Additional Fixed Labyrinths for top cover and bottom	20.00



				ring are required for meeting contingent requirement to ensure smooth operation of Power Station. Also, the power station is located in remote and disturbed area.	
l	Spares of Governor (Hydraulic part) and OPU system	30.00		Additional spares of Governor and OPU system are required to meet the contingent requirement to ensure smooth operation of Power Station.	30.00
m	Spares of Shaft seal arrangement	10.00		Supplied mandatory spares of Shaft sleeve Drum have already been used due to wear & tear in the existing drums. The new proposed spares are essential to meet the contingent requirement to ensure smooth operation of Power Station.	10.00
n	Spares of drainage & dewatering system including flood dewatering pumps with accessories	30.00		Additional spares of Drainage and dewatering system are essential for meeting contingent requirement to ensure smooth operation of Power Station. Also, the power station is situated in remote location.	30.00
o	Spares for EOT cranes	25.00		Additional spares of EOT cranes are required for meeting contingent requirement to ensure smooth operation of Power Station. Also, the power station is located in remote and disturbed area.	25.00
p	Spares of Generator Transformer	10.00		The additional spares are required to meet the contingent	10.00



				requirement to ensure smooth operation of Power Station.		
q	Spares for Unit Tap Off Transformer	20.00		There are 4 UTTs for each unit. One spare UTT is required to meet any exigency.		20.00
r	One no. winding coil for 2.5 MVA SST	15.00		No spare SST is available so one no. winding coil is required to meet any eventuality for smooth operation of the power house.		15.00
2	<b>HM Works</b>					-
a	Rubber seal corner and bottom seal of different gates	4.00	14(1)(ii)	The spares amounting to ₹43.00 Lacs has been supplied to the project by HM contractor as per terms & conditions of the HM Contract and this is over and above the spares proposed for procurement.		4.00
b	Electrical spares for control panels (Relays, contactor, power supply units, water level indicators etc.)	4.00	14(1)(ii)			4.00
c	Wire rope for HR hoist, surge shaft hoist, 40 T Gantry crane, 65T EOT crane.	5.00	14(1)(ii)			5.00
d	Special nut and bolts for SFT bonnet cover, Pressure shaft man hole and different fasteners for all hoists.	4.00	14(1)(ii)			4.00
e	Brake assembly of Electromagnetic and thrustor brakes.	1.00	14(1)(ii)			1.00
	<b>Total additional capital expenditure claimed for FY 2016-17</b>	<b>4959.21</b>				
	<b>Total Allowed</b>					-

### 2017-18

(₹ in lakh)

Sl. No.	Assets/Works	Amount Claimed	Regulation under which claimed	Justification submitted by the petitioner	Remarks on admissibility	Amount Allowed
1	Construction of side protection and road pavement work from salamabad office to Dam	80.00	14(3)(viii)			80.00
2	Construction of side protection work in left	200.00	14(3)(viii)			200.00



	side of D/s of jhelam river area to SFT outfall					
3	Construction of flood protection work at Salamabad Nallah	20.00	14(3)(viii)	<p>These works are New one and have been considered for essential for protection of road/channel and development of access to Dam as an alternate road for security point of view because of disturbed area.</p> <p>The petitioner vide affidavit 4.5.2016 has submitted that these works are new and have been considered vital for protection of road/channel and development of access to dam as an alternate road for security purpose.</p> <p>The respondents BRPL,UPPCL,TPDDL have submitted that as these are new works, the petitioner is required to submit why they are not included in RCE</p>	<p>Considering the fact that the asset/work is necessary for protection from floods, security of generating station and for efficient operation, the expenditure is allowed.</p>	20.00
	<b>Total additional capital expenditure for FY 2017-18</b>	<b>300.00</b>				
	<b>Total Allowed</b>					<b>300.00</b>

### De-capitalization

15. The petitioner has claimed the de-capitalization of ₹195.87 lakh for 2014-15 period under Regulation 14(1) of 2014 Tariff Regulations and has submitted that the above deletions were part of liability as on COD and has not considered the same in capital cost in Petition No.156/GT/2013. It has therefore submitted that no depreciation has been recovered on these deletions & will not have any impact on cumulative depreciation. The details of the de-capitalization are as under:





S.NO.	Name of the Asset	Original Value of the Asset Capitalised (in ₹)	Year put to use	Depreciation recovered till date of de-capitalization
1	TG Access Tunnel (Branch from MAT) Transformer Gallery/ Carvern, Pothead Yard/Switch Yard Building	30491	2013-14	0.00
2	Concrete Gravity Dam (Incl. DT adit, DT, Coffor Dam, Dam)	14936773	2013-14	0.00
3	Power Channel	25697	2013-14	0.00
4	Head Race Tunnel	4476312	2013-14	0.00
5	Tail Race Tunnel	1,17,581	2013-14	0.00
	<b>Total for FY 2014-15</b>	<b>19586854</b>		

16. In response to the direction of the Commission, the petitioner vide affidavit dated 4.5.2016 has submitted that during the construction period, civil work amounting to ₹458.94 lakh was executed by M/s HCC and the same was capitalized. It has further submitted that due to unforeseen condition/force majeure, the work suffered various damages and it was reconstructed by the contractor at the cost of ₹263.07 lakh and the later lodged insurance claim for above damages. Accordingly, the petitioner has submitted that the net construction cost of the work got reduced by ₹195.87 lakh and same has been de-capitalized.

17. Based on the above, the net additional capital expenditure allowed for the period 2014-19 is summarized as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Additional capital expenditure allowed	9187.21	5117.23	3823.06	300.00	0.00
Less: De-capitalization	195.87	0.00	0.00	0.00	0.00
Net Additional capital expenditure allowed for the purpose of tariff	8991.34	5117.23	3823.06	300.00	0.00

18. The petitioner has proposed the following liability to be discharged for the period 2014-19 is as under:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
6153.27	672.91	2097.94	0.00	0.00



19. Taking into consideration the discharge of liabilities, the projected additional capital expenditure allowed for the purpose of tariff is as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Net Additional capital expenditure allowed	8991.34	5117.23	3823.06	300.00	0.00
Discharge of liabilities	6153.27	672.91	2097.94	0.00	0.00
<b>Additional capital expenditure allowed for the purpose of tariff</b>	<b>15144.61</b>	<b>5790.14</b>	<b>5921.00</b>	<b>300.00</b>	<b>0.00</b>

20. Accordingly, the capital cost for the period 2014-19 in respect of the generating station is worked out and allowed as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	216222.17	231366.78	237156.92	243077.92	243377.92
Add: Additional capital expenditure allowed	15144.61	5790.14	5921.00	300.00	0.00
<b>Closing Capital Cost as on 31<sup>st</sup> March of the year</b>	<b>231366.78</b>	<b>237156.92</b>	<b>243077.92</b>	<b>243377.92</b>	<b>243377.92</b>

### Debt-Equity Ratio

21. Regulation 19 of the 2014 Tariff Regulations provides as under:

*(1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:*

*Provided that:*

*(i) where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:*

*(ii) the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*

*(iii) any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt-equity ratio.*

**Explanation** - The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount



*and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.*

*(2) The generating Company or the transmission licensee shall submit the resolution of the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund from internal resources in support of the utilisation made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.*

*(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.*

*(4) In case of generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt:equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt:equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.*

*(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.*

22. The petitioner has stated that the funding of the additional capital expenditure has been made through internal resources and others. In terms of the above, the debt equity ratio of 70:30 has been considered on the additional capital expenditure, after adjustment of the un-discharged liability. Accordingly, the gross normative loan and equity amounting to ₹151355.52 lakh and ₹64866.65 lakh, respectively as on 31.3.2014 as considered in order dated 4.2.2016, has been considered as gross normative loan and equity as on 1.4.2014. Hence, the normative debt equity ratio of 70:30 has been considered in the case of additional capital expenditure. This is subject to truing-up in terms of the 2014 Tariff Regulations.

### **Return on Equity**

23. Regulation 24 of the 2014 Tariff Regulations provides as under:

**“24. Return on Equity:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.



*(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:*

*Provided that:*

*i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:*

*ii). the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:*

*iii). additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:*

*iv). the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:*

*v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:*

*vi) additional RoE shall not be admissible for transmission line having length of less than 50 kilometers.*

24. Regulation 25 of the 2014 Tariff Regulations provides as under:

***“Tax on Return on Equity***

*(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income stream (i.e., income of non-generation or non-transmission business, as the case may be) shall not be considered for the calculation of “effective tax rate”.*

*(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:*



*Rate of pre-tax return on equity = Base rate / (1-t)*

*Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.*

25. The Base rate of ROE has been grossed up with the MAT rate for the year 2013-14.

Accordingly, in terms of the above regulations, Return on Equity has been computed as under:

	<i>(₹ in lakh)</i>				
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Notional Equity- Opening	64866.65	69410.03	71147.08	72923.37	73013.37
Addition of Equity due to additional capital expenditure	4543.38	1737.04	1776.30	90.00	0.00
Normative Equity-Closing	69410.03	71147.08	72923.37	73013.37	73013.37
Average Normative Equity	67138.34	70278.55	72035.22	72968.37	73013.37
Return on Equity (Base Rate)	15.500	15.500	15.500	15.500	15.500
Tax Rate for the year	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax)	19.610	19.610	19.610	19.610	19.610
<b>Return on Equity</b>	<b>13165.83</b>	<b>13781.62</b>	<b>14126.11</b>	<b>14309.10</b>	<b>14317.92</b>

26. The petitioner is however directed to furnish on affidavit the effective tax rates along with the Tax Audit Report for the period 2015-19 at the time of revision of tariff based on truing-up in terms of Regulation 8 of the 2014 Tariff Regulations.

### **Interest on Loan**

27. Regulation 26 of the 2014 Tariff Regulations provides as under:

**“26. Interest on loan capital:** (1) *The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.*

(2) *The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.*

(3) *The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative*



*repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalization of such asset.*

*(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.*

*(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:*

*Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:*

*Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.*

*(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*

*(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.*

*(8) The changes to the terms and conditions of the loans shall be reflected from the date of such refinancing.*

*(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:*

*Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.”*

28. Interest on loan has been worked out as under:

(a) The gross normative loan of ₹151355.52 lakh as on 1.4.2014 has been considered.

(b) Cumulative repayment of loan of ₹3736.25 lakh as on 31.3.2014 as considered in order dated 4.2.2016 in Petition No.156/GT/2013 has been considered as on 1.4.2014.



- (c) Accordingly, the net normative opening loan as on 1.4.2014 works out to ₹147619.27 lakh .
- (d) Addition to normative loan on account of the admitted additional capital expenditure has been considered on year to year basis.
- (e) Depreciation allowed for the period has been considered as repayment of normative loan during the respective year for the period 2009-14.
- (f) In line with the provisions of the regulation, the weighted average rate of interest has been calculated applying the actual loan portfolio existing as on 1.4.2014 along with subsequent additions during the period 2014-19, if any, for the generating station. In case of loans carrying floating rate of interest the rate of interest as provided by the petitioner has been considered for the purpose of tariff. The calculations for weighted average rate of interest on loan have been enclosed as Annexure-I to this order.

29. The necessary calculation for interest on loan is as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross opening loan	151355.52	161956.75	166009.85	170154.54	170364.54
Cumulative repayment of loan upto previous year	3736.25	15169.46	27137.43	39404.55	51830.58
Net Loan Opening	147619.27	146787.29	138872.41	130749.99	118533.97
Addition due to additional capital expenditure	10601.23	4053.10	4144.70	210.00	0.00
Repayment of loan during the year	11433.21	11967.97	12267.12	12426.03	12433.69
Net Loan Closing	146787.29	138872.41	130749.99	118533.97	106100.28
Average Loan	147203.28	142829.85	134811.20	124641.98	112317.12
Weighted Average Rate of Interest of loan	9.9212%	9.9503%	9.9413%	9.9378%	9.9332%
<b>Interest on Loan</b>	<b>14604.38</b>	<b>14212.02</b>	<b>13402.01</b>	<b>12386.62</b>	<b>11156.71</b>

## Depreciation

30. Regulation 27 of the 2014 Tariff Regulations provides as under:

**“27. Depreciation:** (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective



*date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.*

*Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.*

*(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.*

*(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:*

*Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:*

*Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long term power purchase agreement at regulated tariff:*

*Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.*

*(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.*

*(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-II** to these regulations for the assets of the generating station and transmission system:*

*Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.*

*(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.*

*(7) The generating company or the transmission license, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before*





*the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.*

*(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services.”*

31. In terms of above regulations, the weighted average rate of depreciation of 5.1088% as considered by the Commission in order dated 4.2.2016, has been considered for calculation of depreciation. The cumulative depreciation amounting to ₹3736.25 lakh as on 31.3.2014 as considered in order dated 4.2.2016 has been considered for the purpose of tariff. Further, the balance depreciable value (before providing depreciation) for the year 2014-15 works out to ₹56148.46 lakh. The petitioner has claimed cumulative depreciation adjustment on account of de-capitalisation of ₹1245.86. However, in Form 9(B)(i), the petitioner has submitted the de-capitalization amount was the part of liability as on COD and was not considered in capital cost for purpose of tariff in Petition No.156/GT/2013 and accordingly no depreciation has been recovered on these deletions and will not have any impact on cumulative depreciation. Based on the above, the cumulative depreciation adjustment on account of de-capitalisation has been considered take as `nil`.

32. Accordingly, depreciation has been computed as follows:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	216222.17	231366.78	237156.92	243077.92	243377.92
Add: Additional Capital Expenditure	15144.61	5790.14	5921.00	300.00	0.00
Closing Capital Cost	231366.78	237156.92	243077.92	243377.92	243377.92
Average Capital Cost	223794.48	234261.85	240117.42	243227.92	243377.92
Rate of Depreciation	5.1088%	5.1088%	5.1088%	5.1088%	5.1088%
Depreciable value (excluding land) @ 90%	201415.03	210835.67	216105.68	218905.13	219040.13
Balance depreciable Value	197678.78	195666.20	188968.25	179500.58	167209.55
<b>Depreciation</b>	<b>11433.21</b>	<b>11967.97</b>	<b>12267.12</b>	<b>12426.03</b>	<b>12433.69</b>
Cumulative depreciation at the end	15169.46	27137.43	39404.55	51830.58	64264.27



## O&M Expenses

33. Regulation 29 (3) (c) of the 2014 Tariff Regulations provides as under:

*“(c) In case of the hydro generating stations, which have not been in commercial operation for a period of three years as on 1.4.2014, operation and maintenance expenses shall be fixed at 2% of the original project cost (excluding cost of rehabilitation and resettlement works) for the first year of commercial operation. Further, in such case, operation and maintenance expenses in first year of commercial operation shall be escalated @6.04% per annum up to the year 2013- 14 and then averaged to arrive at the O&M expenses at 2013-14 price level. It shall be thereafter escalated @ 6.64%per annum to arrive at operation and maintenance expenses in respective year of the tariff period.”*

34. The Commission in the order dated 4.2.2016 in Petition No. 156/GT/2013 has observed as under:

*“In view of the fact that the original project cost i.e project cost as on the cut-off date has not attained finality, the O&M expenditure allowed as above would be subject to revision based on the revision, if any, in the original project cost.”*

35. The project cost as on cut-off date (31.3.2017) works out to be ₹243077.92 lakh. The cost of Rehabilitation & Resettlement works as on the COD of the generating station COD (1.3.2014), as approved in order dated 4.2.2016, is ₹375.00 lakh and the same has been considered. Accordingly, the year-wise O&M expenses allowed for the generating station are as under:

<i>(₹ in lakh)</i>				
<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
5176.37	5520.08	5886.61	6277.48	6694.31

## Interest on Working Capital

36. Sub-section (c) of clause (1) of Regulation 28 of the 2014 Tariff Regulations provides as under:

*“28 (1) (c) Hydro generating station including pumped storage hydro electric generating station and transmission system including communication system:*

*(i) Receivables equivalent to two months of fixed cost;*

*(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and*

*(iii) Operation and maintenance expenses for one month.”*

37. Working capital has been calculated considering the following elements:



## Maintenance spares

38. The petitioner claim of maintenance spares have been considered and allowed as under:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
776.46	828.01	882.99	941.62	1004.15

## Receivables

39. Receivables component of working capital has been worked out on the basis of two months of fixed cost as under:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
7594.69	7784.41	7820.51	7774.42	7640.84

## O&M Expenses

40. O&M expenses for 1 month for the purpose of working capital are as under:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
431.36	460.01	490.55	523.12	557.86

41. Clause (3) of Regulation 28 of the 2014 Tariff Regulations provides as under:

*"(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later."*

42. In terms of the above regulations, the Bank Rate of 13.50% (Base Rate + 350 Basis Points) as on 1.4.2014 has been considered by the petitioner. This has been considered in the calculations for the purpose of tariff.

## Interest on Working Capital

43. Necessary computations in support of interest on working capital are appended below:

(₹ in lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19
O & M expenses- 1 Month	431.36	460.01	490.55	523.12	557.86
Maintenance Spares	776.46	828.01	882.99	941.62	1004.15



Receivables- 2 months	7594.69	7784.41	7820.51	7774.42	7640.84
Total Working Capital	8802.51	9072.43	9194.05	9239.17	9202.84
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest on Working Capital</b>	<b>1188.34</b>	<b>1224.78</b>	<b>1241.20</b>	<b>1247.29</b>	<b>1242.38</b>

### Annual Fixed charges for 2014-19

44. Accordingly, annual fixed charges approved for the generating station for the period from 1.4.2014 to 31.3.2019 is summarized as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	11433.21	11967.97	12267.12	12426.03	12433.69
Interest on Loan	14604.38	14212.02	13402.01	12386.62	11156.71
Return on Equity	13165.83	13781.62	14126.11	14309.10	14317.92
Interest on Working Capital	1188.34	1224.78	1241.20	1247.29	1242.38
O&M Expenses	5176.37	5520.08	5886.61	6277.48	6694.31
<b>Total</b>	<b>45568.13</b>	<b>46706.47</b>	<b>46923.05</b>	<b>46646.52</b>	<b>45845.01</b>

### Normative Annual Plant Availability Factor

82. Clause (4) of Regulation 37 of the 2014 Tariff Regulations provides for the Normative Annual Plant Availability Factor (NAPAF) for hydro generating stations already in operation. Accordingly, the NAPAF of 55% has been considered for this generating station, the same being a pondage type Hydro generating station.

### Design Energy

83. The Commission in its order dated 4.2.2016 in Petition No.156/GT/2013 had approved the annual Design Energy (DE) of 1123.77 Million units(MUs) for the period 2009-14 in respect of this generating station. This DE has been considered for this generating station for the period 2014-19 as per month-wise details as under:

Month		Design Energy (MUs)
April	I	54.72
	II	54.72
	III	54.72
May	I	54.72
	II	54.72
	III	60.19
June	I	33.92
	II	30.65



	III	39.96
July	I	30.51
	II	27.77
	III	34.32
August	I	40.77
	II	30.88
	III	30.98
September	I	21.25
	II	20.72
	III	20.88
October	I	14.92
	II	13.43
	III	13.26
November	I	23.00
	II	17.58
	III	14.94
December	I	12.87
	II	13.48
	III	14.77
January	I	11.57
	II	20.67
	III	21.24
February	I	17.13
	II	23.65
	III	38.94
March	I	41.02
	II	54.71
	III	60.19
<b>Total</b>		<b>1123.77</b>

### **Application Fee and Publication Expenses**

95. The petitioner has sought the reimbursement of filing fee and also the expenses incurred towards publication of notices for application of tariff for the period 2014-19. The petitioner has deposited the filing fees of ₹ 1056000 for the period 2014-15 in terms of the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012. Accordingly, in terms of Regulation 52 of the 2014 Tariff Regulations and in line with the decision in Commission's order dated 5.1.2016 in Petition No. 232/GT/2014, we direct that the petitioner shall be entitled to recover *pro rata*, the filing fees and the expenses incurred on publication of notices for the period 2014-15 directly from the respondents on submission of documentary proof. The filing fees for the



remaining years of the tariff period 2015-19 shall be recovered *pro rata* after deposit of the same and production of documentary proof.

96. The annual fixed charges approved for the period 2014-19 as above are subject to truing-up in terms of Regulation 8 of the 2014 Tariff Regulations.

97. Petition No. 250/GT/2014 is disposed of in terms of the above.

**(Dr. M.K.Iyer)**  
**Member**

**(A. S. Bakshi)**  
**Member**



**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2009-14)**

(₹ in lakh)

Particulars	Interest Rate (%)					Loan deployed as on 1.4.2014	Additions during the tariff period	Total
	2014-15	2015-16	2016-17	2017-18	2018-19			
LIC	8.9563	8.9608	8.9132	8.8816	8.8387	23078.00	0.00	23078.00
UCO BANK	10.1986	10.2248	10.1983	10.1980	10.1977	60000.00	0.00	60000.00
CORPORATION BANK	10.3071	10.1739	10.1370	10.1248	10.1096	13200.00	0.00	13200.00
CANARA BANK	10.2632	10.1516	10.1175	10.1086	10.0975	2000.00	0.00	2000.00
PUNJAB & SIND BANK	10.3141	10.2038	10.1699	10.1612	10.1504	1000.00	0.00	1000.00
STATE BANK OF HYDRABAD	10.2000	10.3333	10.3056	10.3159	10.3284	6125.00	0.00	6125.00
STATE BANK OF INDIA	10.4900	10.5187	10.5937	10.6036	10.6155	15600.00	0.00	15600.00
Q-SERIES BONDS	9.2500	9.6081	9.6422	9.6835	9.7345	6000.00	0.00	6000.00
R1-SERIES BONDS	8.9767	9.0031	9.0350	9.0744	9.1243	2904.00	0.00	2904.00
TF/1A-SERIES BONDS	8.1800	8.1800	8.1800	8.1800	8.1800	3600.00	0.00	3600.00
<b>Total</b>						<b>133507.00</b>	<b>0.00</b>	<b>133507.00</b>

**WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD**

(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Gross loan - Opening	133507.00	133507.00	133507.00	133507.00	133507.00
Cumulative repayments of Loans upto previous year	11346.33	18849.00	27991.77	38817.35	49642.94
Net loan - Opening	122160.67	114658.00	105515.23	94689.65	83864.06
Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayment (s) of Loans during the year	7502.67	9142.77	10825.58	10825.59	10825.58
Net loan - Closing	114658.00	105515.23	94689.65	83864.06	73038.48
Average Net Loan	118409.33	110086.61	100102.44	89276.85	78451.27
Weighted average Rate of Interest on Loans	9.9212%	9.9503%	9.9413%	9.9378%	9.9332%
Interest on loan	11747.67	10953.96	9951.50	8872.12	7792.74

