

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 236/GT/2014

Coram:

Shri Gireesh B. Pradhan, Chairperson

Shri A. K. Singhal, Member

Shri A.S. Bakshi, Member

Date of Hearing: 28.11.2014

Date of Order : 12.05.2015

IN THE MATTER OF

Revision of Annual Fixed Charges for the period 2009-14 after truing-up exercise and Determination of annual fixed charges for the period 2014-19 in respect of Salal Hydroelectric Power Station

AND

In the matter of

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

...Petitioner

Vs

1. Punjab State Power Corporation Limited
The Mall, Secretariat Complex,
Patiala – 147001
2. Haryana Power Purchase Centre,
Shakti Bhawan, Sector, 6
Panchkula – 134109
3. BSES Rajdhani Power Ltd
BSES Bhawan, Nehru Place,
New Delhi – 110019
4. BSES Yamuna Power Ltd
BSES Bhawan, Nehru Place,
New Delhi – 110 019
5. Tata Power Delhi Distribution Ltd
33 kV Sub-station, Kingsway Camp,
Delhi –110009
6. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House,
Shimla-171004

7. Uttar Pradesh Power Corporation Ltd
Shakti Bhavan, 14, Ashok Marg,
Lucknow – 226001
8. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.
Vidut Bhavan, Janpath,
Jyoti Nagar, Jaipur-302005
9. Jaipur Vidyut Vitaran Nigam Ltd.,
Vidut Bhavan, Janpath,
Jaipur – 302005
10. Jodhpur Vidyut Vitaran Nigam Ltd.
New Power House, Industrial Area,
Jodhpur – 342003
11. Ajmer Vidyut Vitaran Nigam Ltd.
Old Power House, Hatthi Bhatta,
Jaipur Road, Ajmer – 305001
12. Uttaranchal Power Corporation Ltd,
Urja Bhawan, Kanwali Road,
Dehradun-248001
13. Engineering Department, UT Secretariat,
UT Secretariat, Sector 9D
Chandigarh-160009
14. Power Development Department,
New secretariat,
Jammu-180001 (J&K)

...Respondents

Parties present:

Shri. A.K Pandey, NHPC
Shri S.K Meena, NHPC
Shri Piyush Kumar, NHPC
Shri. R.B Sharma, Advocate, BRPL

ORDER

This petition has been filed by the petitioner, NHPC Limited for revision of tariff of Salal Hydroelectric Power Station (“the generating station”) for the period from 1.4.2009 to 31.3.2014 after truing-up exercise in terms of Regulation 6 of the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2009

(the 2009 Tariff Regulations) and for Determination of annual fixed charges for the period from 1.4.2014 to 31.3.2019 in accordance with the provisions of the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2014 (the 2014 Tariff Regulations).

2. The generating station is a run of river project having a capacity of 690 MW and is located in the State of Jammu & Kashmir (J&K) and was declared under commercial operation on 1.4.1995.

3. During the hearing of the petition on 13.10.2014, the respondent, BRPL raised preliminary objection as regards the clubbing of tariff petitions by the petitioner and submitted that the petitioner may be directed to file separate petitions, for truing-up of tariff for the period 2009-14 and for determination of tariff for 2014-19. The Commission after hearing the parties by interim order dated 12.11.2014 rejected the contentions of the respondent and held that the petition filed by the petitioner was maintainable. The relevant portion of the order is extracted as under:

“17. In our view, clubbing of tariff petitions for truing-up for 2009-14 along with the tariff petitions for 2014-19 and disposing of the same through a single order would not only save time, but also bring about certainty in the recovery of cost by these generating stations of the petitioner and also safeguard the interest of consumers. In this background, the preliminary objections raised by the learned counsel for the respondent, BRPL as to the maintainability of these petitions stands rejected. Hence, we hold that the petitions filed by the petitioner in respect of the said generating stations are maintainable.”

4. Accordingly, the petition was heard on 28.11.2014 and the Commission, after directing the parties to complete the pleadings reserved orders in the petition. The respondents, UPPCL, JVVNL, JoVVNL, AVVNL and BRPL have filed replies to the petition and the petitioner has filed its rejoinder to the same. Based on the submissions of the parties and the documents available on record, we proceed to revise the tariff for the period 2009-14 based on truing-up exercise and also

determine the tariff for the period 2014-19 in respect of the generating station as stated in the subsequent paragraphs:

Revision of annual fixed charges for 2009-14

5. Petition No.104/2010 was filed by the petitioner for determination of tariff of the generating station for the period 2009-14 and the Commission by its order dated 27.6.2011 had determined the annual fixed charges for the generating station. Subsequently, the annual fixed charges determined by order dated 27.6.2011 was revised by Commission's order dated 20.6.2012 in Review Petition No.15/2011. Thereafter, the petitioner filed Petition No. 71/GT/2013 for revision of tariff for the period 2009-14 in accordance with Regulation 6(1) of the 2009 Tariff Regulations and the Commission by order dated 20.11.2013 considered the opening capital cost of ₹91159.37 lakh as on 1.4.2009 and revised the annual fixed charges of the generating station as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	11354.86	11242.17	11141.58	8531.56	8577.46
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	1935.57	1912.71	1938.89	1981.49	2032.49
Interest on Working Capital	804.72	832.08	862.44	842.67	880.36
O & M Expenses	10549.90	11153.36	11791.33	12465.79	13178.84
Total	24645.05	25140.32	25734.24	23821.51	24669.15

6. The petitioner in this petition has claimed revision of tariff for the period 2009-14 based on the actual additional capital expenditure incurred during the years 2012-13 and 2013-14. The annual fixed charges claimed by the petitioner for the period 2009-14 in this petition are as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	1935.57	1955.79	1982.02	1985.53	1997.59
Interest on loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	11354.86	11242.17	11141.58	9411.63	9538.20
Interest on Working Capital	804.72	832.98	863.34	861.10	899.65
O&M Expenses	10549.90	11153.36	11791.33	12465.79	13178.84
Total	24645.05	25184.30	25778.27	24724.04	25614.28

7. The projected additional capital expenditure allowed for the period 2012-14 in order dated 20.11.2013 in Petition No.71/GT/2013 and the actual additional capital expenditure claimed in this petition are as under:

	(₹ in lakh)	
	2012-13	2013-14
Projected additional capital expenditure allowed in order dated 20.11.2013	1670.46	80.05
Actual additional capital expenditure claimed in this petition	106.38	339.92

Capital cost

8. Regulation 7 (1) (a) of the 2009 Tariff Regulations provides as under:

“7. Capital Cost. (1) Capital cost for a project shall include: (a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;”

9. The Commission had considered the closing capital cost of ₹91159.37 lakh as on 31.3.2009 as the opening capital cost as on 1.4.2009 in order dated 27.6.2011 in Petition No. 104/2010 for approval of tariff for 2009-14. Accordingly, this capital cost of ₹91159.37 lakh was considered as the opening capital cost as on 1.4.2009 for revision of tariff in order dated 20.11.2013 in Petition No.71/GT/2013. However, the closing capital cost considered as on 31.3.2012 in order dated 20.11.2013 is ₹91669.59 lakh. Accordingly, this closing capital cost of ₹91669.59 lakh has been considered as the opening capital cost as on 1.4.2012, for the purpose of revision of tariff.

Actual/ Projected Additional Capital Expenditure

10. Regulation 9 of the 2009 Tariff Regulations, as amended on 21.6.2011 provides as under:

“9. Additional Capitalisation. (1) *The capital expenditure 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) Un-discharged liabilities;

(ii) Works deferred for execution;

(iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;

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

(v) Change in law: Provided that the details of works included in the original scope of work along with estimates of expenditure, un-discharged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.

(2) *The capital expenditure incurred or projected to be incurred on the following counts after the cut-off date may, in its discretion, 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;

(ii) Change in law;

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

(iv) 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) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and

(v) 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 of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:

Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, 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. 1.4.2009.

(vi) In case of gas/liquid fuel based open/ combined cycle thermal generating stations, any expenditure which has become necessary on renovation of gas turbines after 15 year of operation from its COD and the expenditure necessary due to

obsolescence or non-availability of spares for successful and efficient operation of the stations. Provided that any expenditure included in the R&M on consumables and cost of components and spares which is generally covered in the O&M expenses during the major overhaul of gas turbine shall be suitably deducted after due prudence from the R&M expenditure to be allowed.

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

(viii) Any un-discharged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date, after prudence check of the details of such deferred liability, total estimated cost of package, reason for such withholding of payment and release of such payments etc.

(ix) Expenditure on account of creation of infrastructure for supply of reliable power to rural households within a radius of five kilometers of the power station if, the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility.”

11. The re-conciliation of actual additional capital expenditure claimed in this petition with respect to additional capital expenditure as per books of accounts duly certified by auditor for the period 2012-13 and 2013-14 is as under:

		(₹ in lakh)	
Sl. No		2012-13	2013-14
1	Additional Capital Expenditure		
1(a)	Additions		
i	Capitalisation against works projected and allowed for additional capitalisation	51.27	56.89
ii	Additional capital expenditure not projected earlier but claimed on actual basis.	63.00	310.76
	Total 1(a)	114.26	367.65
1(b)	Deletion / Deduction		
i	Assets deducted on Replacement of New Assets covered under Category A	0.00	(-)4.02
ii	Deduction of Assets without any Replacement and not Covered under Exclusion Clause	(-)6.95	(-)21.14
	Total 1(b)	(-) 6.95	(-)25.16
	Net Addition to be claimed 1(c)=1(a)+1(b)	107.31	342.49
2	Additional Capitalization (book entries to be excluded/ignored for the purpose of tariff)		
2 (a)	Additions (To be ignored for tariff purpose)		
i	Other than Inter-unit addition (minor assets, capital spares etc. whose capitalization is not allowed after the cut-off date.)	2,834.38	444.17
ii	Addition on account of Inter-unit transfer	0.00	0.72
	Total 2(a)	2834.3	444.89
2(b)	Deletions (To be ignored for tariff purpose)		
i	Other than Inter-unit deletion	(-)161.00	(-)313.30
ii	Deletion on account of Inter-unit transfer	(-)3.30	(-)1.09
	Total 2(b)	(-)164.30	(-)314.40

	Net Addition under Exclusion Category 2(c)=2(a)+2(b)	2670.08	130.50
	Net additional capitalisation (including IUT) as per Books of accounts	2777.40	472.98
3	Net additional capitalization claimed for tariff purpose		
i	Net additional capital expenditure from 1(c)	107.32	342.49
ii	Un-discharged liabilities	0.00	0.00
iii	Assumed Deletions	(-) 0.94	(-) 2.56
	Net additional capital expenditure claimed	106.38	339.92

12. Based on the above reconciliation, the year-wise admissibility of the additional capital expenditure under various heads is discussed in the subsequent paragraphs.

Additions against works already approved

13. The petitioner has claimed the year-wise actual additional capital expenditure as against the projected capital expenditure on works allowed by the Commission as under:

(₹ in lakh)	
2012-13	2013-14
51.27	56.89

2012-13

14. No additional capital expenditure against the works approved by Commission has been undertaken by the petitioner during the year 2012-13.

Works allowed in previous years but capitalized in 2012-13

15. The details of works/assets, the additional capital expenditure allowed for these works / actual additional capital expenditure against these works along with reasons for admissibility of the actual additional capital expenditure in terms of 2009 Tariff Regulations is as under:

(₹ in lakh)				
Sl. No	Assets/works	Amount allowed on projected basis	Actual expenditure incurred/ claimed	Justification for admissibility of expenditure
1	Micom P-442 Distance Protection Relay (3 nos.)	9.98-9.09 (de-capitalization of old asset) = 0.92	9.37	Allowed under Regulation 9(2) (iv) for works approved vide order dated 27.6.2011. The gross value of ₹9.09 lakh for the old asset as provided in earlier petition has been considered

				under "Assumed Deletions"
2	CCTV System Power House	44.02	41.89	Allowed under Regulation 9(2) (iv) as the work has been approved vide order dated 27.6.2011.
	Total claimed		51.26	
	Total allowed		51.26	

2013-14

16. No additional capital expenditure against the works approved by Commission has been undertaken by the petitioner during the year 2013-14.

Works allowed in previous years but capitalized in 2013-14

17. The details of works, the additional capital expenditure allowed for these works, the actual additional capital expenditure incurred against these works along with justification for admissibility of the actual additional capital expenditure in terms of 2009 Tariff Regulations is as under:

(₹ in lakh)

Sl. No	Assets/works	Amount allowed on projected basis	Actual expenditure incurred/ claimed	Remarks for admissibility
1	Installation Charges Of IP Based EPABX	7.12 (allowed on projected basis, 7.34 claimed for the new asset in 2011-12 on actual basis.)	0.14	Allowed under Regulation 9(2) (iv) as the work has been approved vide order dated 27.6.2011
2	TATA Sumo Gold X (2 Nos.)	12.62-8.05 (de-capitalization) =4.57(net allowed)	14.13	Allowed under Regulation 9(2) (iv) as the work has been approved vide order dated 27.6.2011. The total de-capitalization for old assets of ₹5.05 lakh on actual basis has been considered in 'Deletions' for the years 2012-13 (₹1.03 lakh) and 2013-14 (₹4.02 lakh).
3	Purchase of Ambulance	14.37-10.50 (de-capitalization)= 3.87 (net allowed)	13.17	Allowed under Regulation 9(2) (iv) for already approved works. The gross value of old asset amounting to ₹10.50 lakh has been considered under "Assumed Deletions"
4	LMG Post	1.88 for 3 LMG	9.83	The petitioner has submitted

	(5 Nos.)	posts		that the requirement was re-assessed during actual implementation. The increase in actual expenditure is due to increase in the number of LMG post from 3 to 5 and due to price escalation during actual implementation. In view of this, expenditure is allowed under Regulation 9(2) (iv) as the work has been approved vide order dated 27.6.2011.
5	Horizontal Multistage Pump (75Hp).	18.07-2.47(de-capitalization)= 15.60 (net allowed)	4.69	Allowed under Regulation 9(2) (iv) as the work has been approved vide order dated 27.6.2011. The gross value of old asset i.e ₹2.47 lakh has been considered and reduced under "Assumed Deletions"
6	Horizontal Multistage Pump 50Hp/37Kw (2 Nos.)		7.77	
7	Centrifugal Water Pump 120Hp Make	6.05	7.15	Allowed under Regulation 9(2) (iv) as the work has been approved vide order dated 27.6.2011. The gross value of old asset was considered and reduced during 2008-09.
	Total	39.09	56.89	Amount allowed ₹56.89 lakh on gross basis. The corresponding reduction of gross value of old assets has been considered in Deletions and Assumed deletions.

18. The petitioner has clarified that the additional capital expenditure allowed was on projection basis and whereas the actual expenditure incurred is less/in excess, due to competitive rates quoted by the bidders and/or due to inflationary trend in material and labour cost.

Capital expenditure not projected/allowed by the Commission, but incurred and claimed

19. The details of the actual additional capital expenditure incurred against new works/ assets along with admissibility of the actual additional capital expenditure in terms of 2009 Tariff Regulations is as under:

2012-13

(₹ in lakh)

Sl. No.	Assets/works	Actual expenditure incurred/ claimed	Justification of the petitioner	Remarks for admissibility
1.	Tail Race Tunnel	31.49	Arbitration case of M/s Karam Chand Thapar v/s NHPC was settled during the FY 2012-13 & necessary entries in accordance with arbitration award were made in the books of accounts. Copy of Arbitration award is attached for reference	In view of the submissions, the expenditure is allowed under Regulation 9(2) (i).
2.	High Rise Maintenance Platform	5.85	This item was purchased new. The maintenance work in Power House was done through ladders and other arrangements which might lead to accident of staff engaged in maintenance work. After purchase of this equipment the work can be executed safely.	Allowed under Regulation 9(2)(iv) for safe and successful operation of the generating station.
3.	Fully Automatic Star Delta Panel	1.23	This item was purchased against replacement.	As the assets are of minor nature, the capitalization of the asset is not allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations
4.	Lan Switch 24 Ports	0.26	With the implementation of ERP & other online System at Salal PS, it has become the necessity to provide computers to almost all the employees. For which the requirement for nos. of LAN port has been increased. Thus New 24 Port LAN Port has been purchased.	
5.	Cyberome CR50IA Appliance	1.28	The Cyberome Software was	

6.	VOIP 24 port FXS	2.25	<p>purchased as per the requirement of IT Security Policy of NHPC. With the increased use of IT resources & internet in current working scenario, a number of threats like virus, malware, Phishing, Data theft etc have also been emerged. The security of sensitive data incl. financial credential from various threats is essential. Hence, this software has been installed at Salal PS to Strengthen the IT Security at Power Station to meet the IT Security requirements.</p> <p>This item was purchased to facilitate the efficient voice communication between different sites.</p>	
7.	E C G Machine (Single Chanel)	0.20	<p>Earlier these hospital items were not available in Hospital. These Hospital equipments were purchased as per essential requirement of the Hospital at Salal PS.</p>	<p>Allowed, under Regulation 9(2)(iv) as the expenditure is in respect of assets which are for the benefit of employees working in remote areas and is necessary for successful and efficient operation of the generating station.</p>
8.	Pulse-Oxemeter	0.41		
9.	Suction Machine	0.15		
10.	Ophthalmoscope	0.15		
11.	Battery Bank with Charger (3 Nos.)	4.25	<p>These items were newly purchased to enhance the efficiency of Control & Protection System/DG Sets installed at Salal Power Station. Earlier there was temporary arrangement for this purpose. However, as per requirement new</p>	<p>Not allowed as the asset is a new purchase and there is no sufficient justification for the same.</p>

			items were purchased.	
12.	Explosive Detector	14.46	This item is related to Security at Salal Power Station & purchase to Strengthen the security of Salal Power Station as per recommendation of IB (Refer appendix Page 114-117)	Allowed under the Regulation 9(2)(iv) as the asset is required for safe and efficient operation of the generating station.
	Total claimed			61.99
	Total allowed			52.72

2013-14

(₹ in lakh)

Sl. No.	Assets/works	Actual expenditure incurred/ claimed	Justification submitted by the petitioner	Remarks for admissibility
1.	Spillways & Wiers, DAM Complex	32.12	The bill related to work of construction of drainage gallery (Contract No. NH/CPC/S-II Dt.06.01.1983 etc. was finalized in the FY 2013-14 and accordingly accounts for in the Books of Accounts.	Allowed under the Regulation 9(2)(iv) as the asset is required for safe and successful operation of the generating station.
2.	65 Hp, Submersible slurry Pump set (Pump +Motor), (2 Nos.)	17.58	Due to increase in seepage water of Wall Protection Stage - I at Power House, additional pumps were required.	Allowed under the Regulation 9(2)(iv) as the asset is considered necessary for successful and efficient operation of the generating station.
3.	Door Frame And Metal Detector (DFDM) (2 Nos)	3.23	This item is security equipment & installed at DAM/Power House for adequate security arrangements of DAM & Power House of Salal Power Station as per recommendation of IB (copy attached)	Allowed under the Regulation 9(2)(iv) as the asset is required for safe and successful operation of the generating station.
4.	Automatic Electrical Operated Barrier (2 Nos.)	2.60	This item is security equipment & installed at DAM/Power House for adequate security arrangements of DAM & Power House of Salal Power Station as per recommendation of IB (copy attached)	

5.	Electrical Operated Hump Spike Tyre Buster/Ripper (2 Nos.)	6.48	This item is security equipment & installed at DAM/Power House for adequate security arrangements of DAM & Power House of Salal Power Station as per recommendation of IB (copy attached)	
6.	Battery Bank 110 V,100 Ah, Each cell 2V,100Ah	2.27	This item was purchased under buy back scheme in place of old battery bank, which was capitalized earlier with its mother plant. The value of old asset was taken at ₹19,500/-. The value of new asset is already net of ₹19,500/-	Allowed under the Regulation 9(2)(iv) as the asset is considered necessary for successful and efficient operation of the generating station.
7.	EMU Submersible Pump-set for wet Sump Install Type	62.63	This item was transferred to Obsolete Asset & claimed in deletion in FY 2010-11, Refer Sl. No. B-8 of 2010-11. However, this item has been reinstated in FY 2013-14 {C(II) 48}.	Re-instatement of asset is allowed under the Regulation 9(2)(iv) as the asset considered necessary for successful and efficient operation of the generating station
8.	Submersible Centrifugal Pump	181.97	This item was transferred to Obsolete Asset and claimed in deletion in year 2010-11(Refer Sl. No. B-9 of 2010-11). However, this item has been reinstated in the year 2013-14 {C(II) 49}. The petitioner vide affidavit dated 7.10.2014 has submitted as under: <i>“Based on the physical condition and performance of the pumps, they were declared obsolete during 2010-11. Accordingly, it was claimed under deletion. However, during further review, it was decided at higher level to continue with the installed pumps with required repair /overhaul instead of purchasing new pumps against these. Necessary repair/overhaul was carried out and these pumps were re-installed. In view of the above facts, the inclusion of cost has been requested in petition.”</i>	Based on the justification submitted by the petitioner and as the asset is considered necessary for the successful operation of the generating station, the expenditure for re-instatement of the asset is allowed under the Regulation 9(2)(iv) of the 2009 Tariff Regulations.
9.	Voip Gateway With 08 Port Fxo(2 Nos.), Cisco Router 1921 with 2 Nos Gigabit Ethernet ports, 8 Port 10/100 Switch (3 Nos.), OFC Media	1.88	These items were purchased to facilitate the efficient voice & data communication between different sites for efficient working in current ERP Scenario.	As the expenditure is in respect of assets of a minor nature, the capitalization of the asset is not allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.

	Converter (2 Nos.)			
	Total amount claimed	310.76		
	Total amount allowed	308.88		

Deletions

20. The following year-wise expenditure has been de-capitalized by the petitioner on account of replacement of old assets or on assets becoming unserviceable/obsolete etc. The de-capitalized assets include lathe, vehicles, hydraulic press, GPS time synchronizer, drill, fire extinguisher, quarters, hotline washing equipment, BPL system & projectors, PLCC panels and other items.

	<i>(₹ in lakh)</i>	
	2012-13	2013-14
Deletions	(-) 6.95	(-) 25.17

21. As the corresponding assets do not render any useful service in the operation of the generating station, the de-capitalization of the above said expenditure as affected in the books of accounts has been allowed for the purpose of tariff. Accordingly, the above said amounts have been deleted for the purpose of tariff.

Exclusions in additions (incurred, capitalized in books but not to be claimed for tariff purpose)

22. The following year-wise expenditure has been incurred by the petitioner on replacement of minor assets, purchase of capital spares, purchase of miscellaneous assets, additions on inter-unit transfers etc.,

	<i>(₹ in lakh)</i>	
	2012-13	2013-14
Exclusions in additions (incurred, capitalized in books but not to be claimed for tariff purpose)	2834.38	444.89

23. The expenditure incurred towards procurement/replacement of minor assets and procurement of capital spares after the cut-off date is not permissible for the purpose of tariff in terms of the 2009 Tariff Regulations. Accordingly, the petitioner has considered these additions under exclusion category. As such, the exclusions of the positive entries under the head are in order and is allowed.

Exclusions in deletions (de-capitalized in books but not to be considered for tariff purpose)

24. The petitioner has de-capitalized amounts in books of accounts pertaining to capital spares, minor assets such as computers, office equipment, power supply system, furniture, fixed assets of minor value less than ₹5000 etc., as these are not in use on account of their becoming unserviceable/obsolete and also deletion on account of inter-unit transfer of minor assets, as under :

	(₹ in lakh)	
	2012-13	2013-14
Minor assets de-capitalized	(-) 26.58	(-) 90.33
Capital spares de-capitalized on consumption	(-)134.41	(-) 222.98
Deletion on account of Inter-Unit Transfer	(-) 3.30	(-)1.09
Total Exclusions in deletions (de-capitalized in books but not to be considered for tariff purpose)	(-)164.30	(-) 314.40

25. The petitioner has prayed that the negative entries may be ignored/ excluded for the purpose of tariff as the corresponding positive entries for purchase of such assets are not being allowed for the purpose of tariff in terms of the provisions of the 2009 Tariff Regulations. In support of this, the petitioner has referred to the observations of the Commission in order dated 7.9.2010 in Petition No.190/2009 as under:

“20. After careful consideration, we are of the view that the cost of minor assets originally included in the capital cost of the projects and replaced by new assets should not be reduced from the gross block, if the cost of the new assets is not considered on account of implication of the regulations. In other words, the value of the old assets would continue to form part of the gross block and at the same time the cost of new assets would not be taken into account. The generating station should not be debarred from servicing the capital originally deployed on

account of procurement of minor assets, if the services of those assets are being rendered by similar assets which do not form part of the gross block.”

26. Accordingly, in line with the above decision of the Commission, the negative entries corresponding to the deletion of minor assets are allowed to be excluded/ ignored for the purpose of tariff.

27. The petitioner has excluded amounts of (-)₹134.41 lakh and (-)₹222.98 lakh for the years 2012-13 and 2013-14 respectively for de-capitalization of capital spares. As regards the prayer of the petitioner for exclusion of negative entries corresponding to de-capitalization of capital spares, it is observed that the expenditure on minor assets and capital spares are not allowed to be capitalized after the cut-off date in terms of the 2009 Tariff Regulations. While the recovery of expenditure on capital spares is allowed through O&M expenses on consumption, the recovery of additional expenditure on minor assets beyond the cut-off date is neither allowed to be capitalized nor permissible under O&M expenses. Hence, the observations of the Commission in order dated 7.9.2010 cannot be made applicable in respect of de-capitalization of spares. It has been noticed from the truing-up petition (Petition No.71/GT/2013) filed by the petitioner for the period 2009-12 and the present petition for the period 2012-14 that the capital spares de-capitalized in books of accounts during the period 2012-14 are the ones which were not allowed to be considered in the capital base for the purpose of tariff. In other words, positive entries arising out of their purchase were also excluded/ ignored for the purpose of tariff. Accordingly, the exclusion/ignoring of negative entries arising out of de-capitalization of capital spares for the purpose of tariff has been allowed. In view of this, the following amounts have been excluded/ ignored for the purpose of tariff as under:

	(₹ in lakh)	
	2012-13	2013-14
Exclusions in additions	2834.38	444.89
Exclusions in deletions	(-)164.30	(-) 314.40
Total exclusions allowed	2670.08	130.49

Assumed Deletions

28. It is noticed that the petitioner has claimed capitalization of ₹9.37 lakh for replacement of protection relays during 2012-13 against an amount of ₹9.98 lakh allowed by the Commission on projected basis. However, as regards de-capitalization of gross value of old assets removed from service, the petitioner has submitted that the same is not available and hence the value of the old asset may be taken as 10% of the cost of new asset. Accordingly, the petitioner has suggested that assumed deletion of ₹0.94 lakh may be considered against these relays. We have examined the matter. It is noticed that the petitioner while claiming the projected additional capital expenditure of ₹9.98 lakh for replacement of relays for the year 2009-10, had submitted that the de-capitalization value representing the gross value of the old relays may be considered as ₹9.09 lakh. The petitioner has however not clarified the wide variation between these amounts and the justification for arriving at de-capitalized value as ₹9.09 lakh. In the absence of any justification or clarification based on records, we are constrained to consider the de-capitalization value of ₹9.09 lakh against replacement of relays in place of ₹0.94 lakh as submitted by the petitioner.

29. For the year 2013-14, the petitioner has claimed the expenditure of ₹13.17 lakh for replacement of ambulance and has suggested that the gross value of old asset may be taken as 10% of the cost of new asset as the deletion value is not available. Contrary to this, the petitioner while claiming the projected additional capital expenditure for the year 2012-13 had indicated that the gross value of the old

ambulance which has been removed from service is ₹10.50 lakh. For the present we consider the de-capitalization value of ₹10.50 lakh against replacement of ambulance instead of ₹1.32 lakh as suggested by the petitioner.

30. On similar lines, the assumed deletions of ₹2.47 lakh is considered during 2013-14 as gross value of the replaced old pumps in place of ₹1.25 lakh as suggested by the petitioner.

31. Accordingly, the Assumed deletions claimed and allowed for the purpose of tariff are as under:

	(₹ in lakh)	
	2012-13	2013-14
Assumed Deletion claimed	(-) 0.94	(-) 2.56
Assumed Deletion allowed	(-) 9.09	(-)12.97

Un-discharged and discharge of Liabilities

32. The petitioner has stated that there are no un-discharged/ discharged liabilities for the years 2012-13 and 2013-14.

33. Based on above discussions, the actual additional capital expenditure allowed for the period 2012-14 for the purpose of tariff is as under:-

	(₹ in lakh)	
	2012-13	2013-14
Additions against works already approved by Commission	51.27	56.89
Additions not projected earlier but incurred and claimed	52.72	308.88
Total additions allowed (a)	103.99	365.77
Deletions allowed (b)	(-) 6.95	(-) 25.17
Assumed deletions considered (c)	(-) 9.09	(-)12.97
Total additional capital expenditure allowed before un-discharged/ discharged liabilities (d)=(a)+(b)+(c)	87.95	327.63
Less: Un-discharged liabilities in the additional capital expenditure allowed above	0.00	0.00
Additional Capital Expenditure allowed	87.95	327.63

Capital cost for 2012-14

34. Accordingly, the capital cost considered for the purpose of the tariff is as under:

	(₹ in lakh)	
	2012-13	2013-14
Opening capital cost	91669.59	91757.54
Additional capital expenditure allowed	87.95	327.63
Closing capital cost	91757.54	92085.17

Return on Equity

35. The petitioner has considered the rate of Return on Equity after grossing up with effective tax rate as under:

Year	2009-10	2010-11	2011-12	2012-13	2013-14
Base Rate	15.500%	15.500%	15.500%	15.500%	15.500%
Tax Rate	30%	30%	30%	18.5%	18.5%
Surcharge	10%	7.50%	5%	5.0%	10.0%
Education cess	3%	3%	3%	3%	3%
Effective Tax Rate	33.990%	33.218%	32.445%	20.008%	20.961%
Rate of ROE (pre-tax)	23.481%	23.210%	22.944%	19.377%	19.611%

36. Considering the above rates after accounting for the admitted additional capital expenditure, the Return on Equity has been worked out as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Notional Equity	48402.40	48311.72	48563.15	48555.46	48581.85
Addition due to additional capital expenditure	(-) 90.68	251.43	(-) 7.68	26.39	98.29
Closing Equity	48311.72	48563.15	48555.46	48581.85	48680.14
Average Equity	48357.06	48437.43	48559.31	48568.66	48630.99
Return on Equity	11354.72	11242.33	11141.45	9411.15	9537.02

Interest on Loan

37. The normative loan in respect of the project has already been repaid. The normative loan on account of the admitted additional capital expenditure during the respective years of the tariff period 2009-14 have been considered as fully paid, as the admitted depreciation is more than the amount of normative loan in these years. As such, the Interest on loan during the period 2009-14 is worked out as 'Nil'.

Depreciation

38. The date of commercial operation of the generating station is 1.4.1995. Since the station has completed 12 years of operation as on 31.3.2007, the remaining

depreciable value has been spread over the balance useful life of the assets. Assets amounting to ₹344.62 lakh, ₹270.17 lakh, ₹52.40 lakh, ₹16.04 lakh and ₹38.4 lakh have been de-capitalized during the years 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 respectively. As per the methodology consistently adopted by the Commission, the amount of cumulative depreciation allowed in tariff against those de-capitalized assets has been calculated on pro-rata basis. The same has been adjusted from the cumulative depreciation of the year of de-capitalization.

39. In Petition No. 104/2010, the petitioner had claimed the cost of land as ₹6000.20 lakh out of which ₹5400.00 lakh was projected as Stamp duty to be incurred in 2010-11. However, as the payment of stamp duty of ₹5400.00 lakh was not made by the petitioner, the additional capitalization of the same was not allowed in Commission's order dated 20.11.2013 in Petition No. 71/GT/2013. Accordingly, the value of land should have been taken as ₹6000.20 lakh in order dated 20.11.2013. It is noticed that the said amount was inadvertently overlooked by the Commission while calculating depreciation in order dated 20.11.2013. In view of this, this amount has been considered in the present order for the purpose of tariff. Accordingly, the depreciation has been computed as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Block as on 31.3.2009	91159.37	90857.11	91695.20	91669.59	91757.54
Additional capital expenditure during 2009-14	(-) 302.26	838.09	(-) 25.61	87.95	327.63
Closing gross block	90857.11	91695.20	91669.59	91757.54	92085.17
Average gross block	91008.24	91276.16	91682.40	91713.57	91921.36
Depreciable Value	81811.71	82052.83	82418.44	82446.50	82633.51
Balance Useful life of the asset	21.00	20.00	19.00	18.00	17.00
Remaining Depreciable Value	40646.98	39115.39	37657.12	35729.93	33940.45
Depreciation	1935.57	1955.77	1981.95	1985.00	1996.50

Operation & Maintenance Expenses

40. O&M expenses as allowed in order dated 20.11.2013 in Petition No. 71/GT/2013 has been considered as under:

(₹ in lakh)				
2009-10	2010-11	2011-12	2012-13	2013-14
10549.90	11153.36	11791.33	12465.79	13178.84

41. Interest on working capital

a) Receivables

In terms of Regulation 18(1) (c) (i) of 2009 Tariff Regulations, receivables equivalent to two months of fixed cost has been considered as under:

(₹ n Lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19
Two months of annual fixed cost	4107.48	4197.41	4396.34	4120.5	4268.66

b) Maintenance Spares

Regulation 18(1) (c) (ii) of 2009 Tariff Regulations, provides Maintenance spares @ 15% of operation and maintenance expenses as specified in Regulation 19, the same has been considered as under:

(₹ in Lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of maintenance spares	1582.49	1673.00	1768.70	1869.87	1976.83

c) O&M Expenses

Regulation 18(1) (c) (ii) of 2009 Tariff Regulations provides, operation and maintenance expenses for one month is permissible and has been considered in tariff.

(₹ in Lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19
O & M for 1 month	879.16	929.45	982.61	1038.82	1098.24

Rate of interest on working capital

42. Regulation 18(3) of 2009 Tariff Regulations provides that the Rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2009 or on 1st April of the year in which the generating station or a unit thereof or the transmission system, as the case may be, is declared under commercial operation, whichever is later.

43. In accordance with Regulation 18(3) of the 2009 Tariff Regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2009 or on 1st April of the year in which the generating station or a unit thereof or the transmission system, as the case may be, is declared under commercial operation, whichever is later.

44. The SBI PLR as on 1.4.2009 was 12.25% has been considered for computation of the interest on working capital.

45. Accordingly, Interest on Working Capital has been calculated as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	1582.49	1673.00	1768.70	1869.87	1976.83
O & M expenses	879.16	929.45	982.61	1038.82	1098.24
Receivables	4107.48	4197.41	4296.34	4120.50	4268.66
Total	6569.13	6799.86	7047.66	7029.19	7343.72
Interest on Working Capital @ 12.25%	804.72	832.98	863.34	861.08	899.61

Annual Fixed charges for 2009-14

46. The annual fixed charges for the period 2009-14 allowed for generating station are summarized as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	11354.72	11242.33	11141.45	9411.15	9537.02
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	1935.57	1955.77	1981.95	1985.00	1996.50
Interest on Working Capital	804.72	832.98	863.34	861.08	899.61
O & M Expenses	10549.90	11153.36	11791.33	12465.79	13178.84
Annual Fixed Charges	24644.91	25184.44	25778.07	24723.01	25611.97

47. The difference between the annual fixed charges already recovered by the petitioner and the annual fixed charges determined by this order as above shall be adjusted in terms of Clause (6) of Regulation 6 of the 2009 Tariff Regulations.

Determination of Annual Fixed Charges for the period 2014-19

48. As stated, the petitioner in this petition has also prayed for the determination of annual fixed charges of the generating station for the period 2014-19 in accordance with the provisions of the 2014 Tariff Regulations. Accordingly, the annual fixed charges claimed by the petitioner for the period 2014-19 are as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2031.09	2127.34	2307.66	2584.83	2891.13
Interest on Loan	0.00	0.00	6.67	23.65	23.62
Return on Equity	9572.02	9648.53	9805.18	10029.10	10259.18
Interest on Working Capital	1064.21	1121.15	1185.54	1257.70	1334.28
O & M Expenses	14429.58	15388.29	16410.68	17501.01	18663.78
Annual Fixed Charges	27096.90	28285.31	29715.74	31396.30	33172.00

49. In response to the directions of the Commission the petitioner has submitted additional information and has served copies of the same on the respondents. The respondents UPPCL, the discoms of Rajasthan (JVVN, JoVVNL and AVVN) and BRPL have filed replies to the petition and the petitioner has filed its rejoinder to the said replies filed by the respondents. Based on the submissions of the parties and the documents available on record, we proceed to determine the tariff of the generating station for the period 2014-19 as stated in the subsequent paragraphs.

Capital Cost

50. Clause (1) of Regulation 9 of the 2014 Tariff Regulations provides that the capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects. Clause (3) of Regulation 9 provides as under:

“9(3) 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)xxxx

(c) xxxx

51. The closing capital cost considered by the Commission as on 31.3.2014 in this order is ₹92085.17 lakh. This amount has been considered as the opening capital cost as on 1.4.2014 for computation of tariff for the period 2014-19.

Actual/ Projected Additional Capital Expenditure during 2014-19

52. The petitioner in the truing-up petition has submitted that it has not been able to incur some projected additional capital expenditure allowed by the Commission against the works/ assets allowed in order dated 27.6.2011 in Petition No. 104/2010. Accordingly, the petitioner has prayed that Commission may allow the capitalization of these approved works/ assets during the period 2014-19. This prayer of the petitioner is accepted. However, the capitalization of the expenditure on this count is subject to the admissibility of the expenditure in terms of 2014 Tariff Regulations.

53. 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 upto 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.

54. Regulation 14 (3) of the 2014 Tariff Regulations, provides as under:

“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.”

55. The year-wise breakup of the projected additional capital expenditure claimed by the petitioner is as under:

<i>(₹ in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
1209.30	1958.06	3824.28	4295.76	4017.12

56. Before proceeding, we examine some of the general issues raised by the respondent, UPPCL and BRPL as regards the claim for additional capitalization of assets/items by the petitioner during 2014-19. The petitioner in this petition has claimed additional capital expenditure for assets/items for the period 2014-19 under Regulation 14(3) (viii) of the 2014 Tariff Regulations. The respondent UPPCL has submitted that the claim of the petitioner for purchase of assets/items for 2014-19 may be charged against the O&M expenses allowed to the generating station. It has also submitted that the petitioner may be directed to clarify as to whether the expenditure for purchase of 3 nos. single phase 50 MVA transformer for ₹12 crore for 2017-18 was approved by the Board of Directors of the petitioner company. The respondent, BRPL has submitted that the claim of the petitioner for projected additional capital expenditure under Regulation 14(3)(viii) shall be read with Regulation 14(3)(vii) which require that the claim for expenditure for replacement of assets which are necessary for efficient operation of the plant shall be substantiated with technical justification duly supported by documentary evidence like test results carried out by independent agency in case of deterioration of the assets. Accordingly, it has been submitted the claim may be rejected as the same has not been submitted

in this case. The respondent has added that the expenditure on procurement of minor assets may not be allowed.

57. In response to the submissions of respondent UPPCL, the petitioner has clarified that the projected additional expenditure on account of assets like replacement of crane, event logger, automatic weather station, motorized boat & upgradation of filtration system and purchase of motorized valve, truck mounted maintenance scissor platform & physiotherapy machine, etc. are of capital nature and hence cannot be charged to O&M expenses. The petitioner has further stated that the expenditures have been claimed strictly as per Regulation 14(3)(viii) of 2014 Tariff Regulations as the same are required for successful & efficient operation of the generating station and all assets proposed for capitalization are of capital nature and therefore may be allowed by the Commission. The petitioner has further stated that the approval of the Board of Directors and the resolution of the Board giving item-wise details as approved by the Board has enclosed as Annexure-VI to the petition. In response to the submissions of the respondent, BRPL the petitioner has stated that the production of test results carried out by independent agency is neither required nor economically advisable for such small and essential requirements as the hiring of independent agency for such small items will be cost prohibitive and be shall be an additional burden on the beneficiaries. The petitioner has clarified that Regulation 14(3)(vii) is not applicable in respect of the assets indicated by the respondent BRPL as these are being replaced on account of expiry of their useful life. It has further pointed out that Regulation 14(3)(vii) is only applicable in case of damage due to natural calamities and degradation.

58. We have examined the matter. The petitioner has claimed capitalization of the expenditure under Regulation 14(3)(viii) which also provides for capitalization of

expenditure incurred due to additional work which has become necessary for successful and efficient operation of plant. The submission of the respondent, UPPCL that assets/works claimed by the petitioner should be considered under O&M expenses cannot be accepted as the expenditure claimed for capitalization is in respect of works of capital nature and are not in the nature of revenue expenses. Moreover, the contention of the respondent, BRPL that Regulation 14(3)(viii) should be read with Regulation 14(3)(vii) in respect of expenditure incurred on replacement assets and that the same should be supported by documentary evidence like test results carried out by independent agency in case of deterioration of the assets is also not acceptable. In our view, the requirement of documentary evidence like test results etc., carried out by independent agency will be necessary in case of assets which have deteriorated prior to the expiry of useful life and accordingly sought to be replaced. In the instant case, these assets are being replaced on account of obsolescence /deterioration etc., after expiry of its useful life in consideration of year-wise assets which were put to use and accordingly additional capitalization has been sought on the grounds that they are necessary for successful and efficient operation of the plant. Since the capital expenditure incurred or projected to be incurred are admitted after prudence check, in terms of the 2014 Tariff Regulations, only those expenditures which are necessary for efficient and successful operation of the plant are only serviced through tariff by the respondents. This will adequately take care of the apprehensions of the respondents. In response to the directions of the Commission, the petitioner vide affidavit 7.10.2014 has submitted the additional information. Accordingly, based on the submissions of the parties and the documents available on record, the claims of the petitioner for the period 2014-19 are considered and allowed on prudence check, after reduction of the gross value of old assets, wherever necessary, as detailed in the subsequent paragraphs.

2014-15

(₹ in lakh)

Sl. No.	Assets/ Works	Amount Claimed	Justification submitted by the petitioner	Remarks on admissibility	Amount Allowed
1	Purchase of Two Nos. of Fire Tender	59.84	Purchase of this item has already been approved by the Commission for the period 2009-14. Two nos. of fire tenders have been purchased and will be capitalized in year 2014-15. Against the sanctioned amounts of ₹35.99 lakh for 2009-10, purchase has been made for ₹ 59.84 lakh.	Allowed under Regulation 14(3) (viii) after reduction of the gross value of the old asset, as the expenditure on this asset has already been approved. The gross value of old asset is ₹6.27 lakh	53.57 (59.84 -6.27)
2	Purchase of 08 Nos. VT Pumps.	90.40	The said purchase has been approved for the period 2009-14. 08 nos. of VT Pumps have already been purchased and are in the process of installation. The said pumps are capitalized in 2014-15. Against the sanctioned amounts of ₹76.71 lakh for 2011-12 and ₹81.09 lakh for 2012-13, the price has been reduced due to competitive price obtained through tender.	Allowed under Regulation 14(3) (viii) after reduction of the gross value of the old asset, as the expenditure on this asset has already been approved. The gross value of old asset is ₹15.84 lakh	74.56 (90.40-15.84)
3	Purchase of 245 KV SF ₆ Circuit Breaker at Generating Units, Feeder Bays of Stage-1 and Bus Coupler Bay	122.17	The Commission has already approved an amount of ₹48.92 lakh during 2012-13 and ₹68.96 lakh during 2013-14. The requisite Breakers have already been purchased and are in the process of installation and commissioning. The said Breakers will be capitalized in 2014-15.	Allowed under Regulation 14(3) (viii) after reduction of the gross value of the old asset, as the expenditure on this asset has already been approved. The gross value of old asset is ₹38.12 lakh	84.05 (122.17 -38.12)
4	Microprocessor based Digital Governing System	600.00	Commission has already approved amount of ₹946.89 lakh in 2011-12 & ₹ 1001.05 lakh in 2012-13. This is a retrofitting work in which new governor system shall work in tandem with existing plant set up of hydraulic and	Allowed under Regulation 14(3) (viii) after reduction of the gross value of the old asset, as the expenditure on this asset has already been approved. The	352.58 (600 -247.42)

			control system. The finalization of technical specifications, scope of work etc took time and work could not be completed during 2009-14 period. The work is under advance stage of award. Accordingly provision has been proposed in 2014-15. The price is as per lowest bid received for the work.	gross value of old asset is ₹247.42 lakh	
5	Installation testing and Commissioning of numerical Generator Transformer protection Relay	0.65	Commission has already been approved this amount for the year 2009-10 and 2010-11. Accordingly the Generator Transformer Protection relays have been purchased. The installation is not complete, therefore, only the supply part has been capitalized and the amount for installation is pending for capitalization. Hence amount of ₹65,000 has been kept in 2014-15 for completing the installation work. Thus item is shifted to 2014-15 in additional capitalization for the period 2014-19.	Allowed under Regulation 14(3) (viii) as the works are already approved.	0.65
6	Automatic Sewerage Disposal System for Power House	45.00	The expenditure is already approved by the Commission during 2012-13 for amount ₹53.70 lakh. Automatic Sewerage Disposal System for Power House is must to suffice current stringent environment pollution norms and is already under tendering stage. The delay is due to finalization of design and detailed specification of the work.	Allowed under Regulation 14(3) (viii) as the asset/work is already approved.	45.00
7	Purchase of 10 no. 02 HP submersible pumps.	5.00	This item has already been approved by the Commission during 2009-10. The purchase of 02 HP submersible pumps is replaced by old 02 HP submersible pumps which are beyond economical repair.	Allowed under Regulation 14(3) (viii) as the asset/work is already approved. The gross value of old asset is indicated as ₹3.43 lakh	1.57 (5.00 - 3.43)

8	Purchase of 2 nos. TATA 407 along with water tank fabrication.	20.60	These assets/ work were approved by the Commission during 2012-13. The purchase order for the said vehicles has already been placed in March, 2014. Therefore, both the purchase and fabrication works will be capitalized in the year 2014-2015.	Allowed under Regulation 14(3) (viii) as the asset/work is already approved. The gross value of old asset is indicated as ₹10.50 lakh	10.10 (20.60-10.50)
9	Purchase of New Escorts Make Crane	11.35	This purchase is against replacement of existing 08 MT capacity crane and is under tendering stage. This item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹8.96 lakh	2.39 (11.35-8.96)
10	Purchase of New Ashok Leyland Make Tipper.	16.57	This Item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹29.78 lakh	(-) 13.21 (16.57-29.78)
11	Event logger for Power house	64.66	Existing event logger installed at the generating station has become obsolete. Presently, this item is under tendering stage and was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹20.76 lakh	43.90 (64.66-20.76)
12	Automatic weather station	5.00	The old asset is not working and has been surveyed off. The Dam Safety Team also pointed to establish a new weather station. The budget provision shall be kept in RE 2014-15. This Item was separately capitalized,	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross	0.47 (5.00-4.53) The petitioner is directed to submit the report of the dam safety team at the time of truing-

			hence proposed for replacement under additional capitalization.	value of old asset is indicated as ₹4.53 lakh	up in terms of Regulation 8 of the 2014 Tariff Regulations
13	Motorized Boat	12.00	The existing boat is 1990 model which is very difficult to operate in the run of river and is beyond economical repair, hence it is proposed for purchase new motorized boat and its price bid is opened. The budget shall be utilized in BE 2014-15. This Item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹0.84 lakh	11.16 (12.00 - 0.84)
14	Proper Drinking Water System Developing proper drinking water system. 1. Providing and laying 4"/ 6" pipe line from Soo nallah to Jyotipuram Reservoir (where ever required) approx. 4 km 2. Up-gradation of filtration plant at Jyotipuram.	5.00 20.00	The existing water supply line has developed cracks & leakages and needs to be essentially replaced for water supply arrangement to residential colony. The water supplied to the Township has lot of calcium content & turbidity. Chlorination is not sufficient. Hence up-gradation of filtration plant to the latest standards is required.	Allowed under Regulation 14(3) (viii) since the assets are considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹2.06 lakh Allowed under Regulation 14(3) (viii) since the assets are considered necessary for efficient operation of the generating station.	2.94 (5.00-2.06) 20.00
15	Purchase of Motorized valve along with accessories for cooling water systems at various locations of Stage-I &II	21.00	The generating station is having an open loop cooling system. Further, presently, during every start sequence/ stopping sequence of the generating units, each valve has to be opened / closed manually by four number persons posted at respective floors of stages-I & II which makes it difficult for a real time monitoring from the control room. At the same	Allowed under Regulation 14(3) (viii) in view of the submissions of the petitioner and since the asset is considered necessary for efficient operation of the generating station.	21.00

			time, due to superannuation /shortage of employees with every coming year, it is necessary to upgrade the system so that the same could be operated from remote location i.e. from the control room. It is therefore proposed to provide additional motorized valves (300mm). The work has already been awarded.		
16	Purchase of New Maintenance Scissor Platform (Truck Mounted)	16.30	A number of street lights have been installed in and around Power House, Switchyard and Dam Areas for proper Illumination and security reasons. A Truck Mounted Maintenance Scissor Platform is required for quick and proper maintenance of these lights as manual works take a long time. This will also cater to decreasing strength of such staff. It has also been approved in the sanctioned strength of equipments for O&M Stage of power station. The case is under tendering stage.	Allowed under Regulation 14(3) (viii) as the asset is considered necessary for safe and efficient operation of the generating station.	16.30
17	Purchase of hospital miscellaneous items, Physiotherapy items & Defibrillator with external Cardiac pacer	10.00	Physiotherapy machines are required for managing of joints pains and defibrillator equipment is required for management of Cardiac vascular complications.	Allowed under Regulation 14(3) (viii) since expenditure is for the benefit of employees working in remote areas of the project. This will contribute to efficient operation of the plant.	10.00
18	Complete Replacement of 11 KV metering CTs of better accuracy Class (0.2) in phases	14.88	As per CEA Guidelines the "Energy accounting and Audit meters shall be of accuracy class of 0.2 and the accuracy Class of CT & VT shall not be inferior to that of associated meters". The associated meters (SEMs) installed at Generators and Feeders of generating station are of	Allowed under Regulation 14(3) (viii) since the assets are considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as	11.28 (14.88-3.60)

			accuracy class 0.2. Hence C.T of 0.2 Class is required to adhere to the guidelines of CEA. Accuracy Class of our existing CT is 1. Therefore it is proposed to purchase new CTs (24 nos) with better accuracy Class to adhere to the guidelines of CEA. This Item was separately capitalized, hence proposed for replacement under additional capitalization.	₹3.60 lakh	
19	Purchase of 48 V, 100 AH Battery Bank.	3.35	Protection audit team of NRPC has opined for doubling of DC source/ supply for reliable and uninterrupted operation of the equipments installed in power station as per MOM dated 8/9/2012. Therefore, for the compliance of observations of protection audit team an additional battery bank is being proposed for purchase. Purchase case is under tendering stage.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station.	3.35 The petitioner is directed to furnish the report of the audit team of NRPC team at the time of truing-up.
20	Acoustic enclosure along with Air Duct & Raising of Chimney height as per licensing requirement for 7 nos. DG Sets installed for Salal Power Station	40.53	As per the Government Pollution Control Bureau, it is mandatory to adhere to latest pollution norms to avoid damage to the surrounding environment and other litigation actions. With regards to the sound (measured in decibels) emitted while during the operation of the DG sets, it should not be more than 75 decibels at a perimeter of 01 Mtr from the wall of the DG. In this regard, a compliance letter dated 1/11/2012 has been issued by Regional Director, State Pollution Control Board, Jammu. Therefore, to comply as per above, acoustic enclosure along with raising of chimney height is must for the generating station. Case has already been awarded.	It is observed that the pollution norms were notified by the J&K Pollution Control Board during 2007. The petitioner was directed to file the compliance report vide letter dated 1.11.2012 and 17.4.2013. Though the expenditure is not covered under Regulation 14(3), the same is allowed under Regulation 14(3) (viii) since the asset is considered necessary for meeting the pollution norms	40.53

				thereby contributing to the efficient operation of the generating station.	
21	Access Control System	25.00	Generating station is situated in the Reasi District of Jammu & Kashmir having mountainous regions and dense forest areas around it. These areas may facilitate the infiltration of Terrorists/ unscrupulous elements in and around power house/ dam area which has also been pointed out in the reports of the IB, Police and Other security agencies. Additionally, proximity of the generating station to tourist/ religious places, there is an essential need to have a control over the access of power house. Therefore, it is both essential and statutory for the power station to have an access control system.	Allowed under the Regulation 14(3) (iii) for safe and successful operation of the generating station.	25.00 However, the petitioner is directed to furnish the documents as regards the advice / directions received from Appropriate /Government authority.
Total Amount claimed		1209.30		Total amount allowed	817.19

2015-16

(₹ in lakh)

Sl. No.	Assets/ Works	Amount Claimed	Justification submitted by the petitioner	Remarks on admissibility	Amount Allowed
1	New bay for Captive Power 220 KV switchyard	518.00	Asset/ work was approved by the Commission for ₹264.35 lakh in 2012-13 for the period 2009-14. The case is under tendering process and likely to be completed in 2015-16. The estimate is based upon the technical sanction granted to this work. The work gets delayed due to delay in finalization of technical specifications of the work and segregation of complete proposal in different packages involving civil and E&M	Allowed under Regulation 14(3) (viii) as the asset/ work is already approved. The asset is considered necessary for efficient operation of the generating station.	518.00

			work.		
2	Purchase of 11 KV SF6 breaker Panel against replacement of old 11 KV MOCB Panel	80	Asset/ work was approved by Commission for the period 2009-14 (i.e 2012-13), but due to prolonged procurement period, item could not be finalized in the said period. Thus, the item has been shifted to 2014-15 in additional capitalization for period 2014-19.	Allowed under Regulation 14(3) (viii) as the asset/ work is already approved and is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹7.99 lakh	72.01 (80-7.99)
3	Purchase of Two Nos. Campers/ Tata Sumo	15.74	Subsequent to retirement of emergency/ maintenance staff posted at various locations, the remaining staff had to be stationed at a centralized place from where they have to carry different works. Commission had allowed an amount of ₹13.34 for the period 2012-13. However, the proposal was later on rejected by the corporate office. But due to changing needs and requirements of the generating station, instead of 02 Nos. Departmental Sumos, purchase of 2 Nos. Bolero Campers is being proposed. Previous sanctioned amount has been duly escalated @ 6% per annum from its allotted year 2012-2013.	Allowed under Regulation 14(3) (viii) as the asset is already approved and is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹8.05 lakh	7.69 (15.74-8.05)
4	Replacement of ITI Make Telephone Exchange 512 C-Dot with New One.	63.6	The existing item has become obsolete due to non-manufacturing of spares and components by manufacturers. This Item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) as the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹31.23 lakh	31.23 (63.60-32.37) This is however, subject to the petitioner furnishing obsolescence certificate from ITI at the time of trueing-up
5	Replacement of 220 V, 1000 AH	44.8	Existing battery bank of HBL was installed in	Allowed under Regulation 14(3)	32.27 (44.80-

	Battery Bank for stage-1		Stage-I and was purchased in year 2002. Most of its cells are damaged and not in working condition. Therefore, for reliable operation of equipment, it is proposed to purchase a new set of this asset.	(viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹32.27 lakh	12.53)
6	LP Compressor (250 cfm)	41.5	The asset installed at power house is more than 25 years old and thus has become obsolete and unreliable for operation. It is therefore proposed to replace the old LP compressors with new 250 CFM capacity compressor. This item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹0.06 lakh	41.44 (41.50-0.06)
7	Renovation and modernization of Stage II CO ₂ fire fighting system	52.41	The existing CO ₂ fire fighting system installed at Stage II is more than 25 year old and is very old and obsolete. Considering the potential fire hazards & safety of the personnel, it is proposed to renovate the complete fire fighting system of with modern features. The case is under tendering stage. This Item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹20.96 lakh	31.45 (52.41-20.96)
8	Supply, installation & commissioning of 1 No. Goods cum passenger Lift (2000Kg) at Dam top	80.50	The existing OTIS make lift is out of order and unserviceable. Supply and installation of new lift under buyback scheme is under tendering process. The new lift is necessary for smooth operation & maintenance of Dam.	Allowed under Regulation 14(3)(viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹15.46 lakh	65.04 (80.50-15.46)
9	Tata Bus - Purchase of One no. Tata Bus or Equivalent.	26.50	The asset/ work is to be processed against replacement of TATA Bus. The said vehicles are a	Allowed under Regulation 14(3)(viii) since the asset is	18.39 (26.50-8.11)

			part of the sanctioned strength of generating station.	considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹8.11 lakh	
10	Replacement of Old Buses No. JK 02B 2338 & JK 02B 2397	41.63	The asset/ work is to be processed against replacement of TATA Bus. The said vehicles are a part of the sanctioned strength of generating station.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹11.92 lakh	29.71 (41.63-11.92)
11	Inspection Vehicle - Purchase of Two nos. Tata Sumo/ Bolero/ Xylo or equivalent.	21.20	The asset/ work is to be processed against replacement of TATA Sumo. The said vehicles are a part of the sanctioned strength of generating station.	Allowed under Regulation 14(3) (viii) as the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹8.04 lakh	13.16 (21.20-8.04)
12	Proper Drinking Water System at generating station - providing and laying 4"/ 6" pipe line from Soo nallah to Jyotipuram Reservoir (where ever required) Approx. 4 Km	21.20	The existing water supply line has developed cracks & leakages and needs to be essentially replaced for water supply arrangement to residential colony.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹8.48 lakh	12.72 (21.20-8.48)
	Proper Drinking Water System at generating station - Developing proper drinking water system. Supply of multistage centrifugal pumps (3 Nos. @ approx. 20.00 lakh per pump) and electric panels (3 Nos. @ approx. 5 lakh per	79.50	These high capacity pumps are proposed to be installed at Soo nallah Stage Zero pumping station to increase the pumping capacity and shall eliminate the need of intermediate pumping station.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station.	79.50

	panel) of about 400 m head & over 1500 Plum discharge for lifting water from Soo nallah Stage zero up to Bidda reservoir.				
	Proper Drinking Water System at generating station - Developing proper drinking water system.	160	Construction of an overhead reservoir of 1.00 Lac Gallon capacity	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station.	160.00
13	Purchase of 2 nos. of 10 KVA UPS, along with 100 AH Battery Bank.	21.20	Presently, small separate UPSs are being used for different equipments, which in turn make their maintenance practice complex. Due to shortage of manpower, it has become impossible to attend the scattered equipments. In addition to this, reliable supply is also required for newly installed Digital Display Board and reservoir level display meters. Thus integrated online UPS system is required for supplying reliable power to the systems. Hence it is proposed to purchase 02 of 10 KVA online UPS along with 100AH battery bank to resolve above problem. This item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹1.00 lakh	20.20 (21.20-1.00)
14	Replacement of Old and Obsolete Halon System of Salal Power Station	53.10	The Halon system is obsolete and has already been banned by the Government of India. In view of this, replacement of this system is required/essential. The case file is to be initiated. This item was separately capitalized, hence proposed for replacement	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹23.67 lakh	29.43 (53.10-23.67)

			under additional capitalization.		
15	Supplying and laying of 12 Core OFC cable from Jyotipuram to Power House Complex.	37.10	The only communication media available for the Power Station is the OFC Cable. For augmenting the existing 6-core OFC Communication cable, which is already worn out at many points. For up-gradation of IT and Communication Hardware System, a parallel 12-Core OFC Cable laying is being proposed. Efficient, Trouble-Free and uninterrupted IT and Communication capabilities are a must for communicating with various agencies for regulated and required operation of the Power House. It is also important for communications in emergent conditions like Power Failure, hazards etc.	Allowed under Regulation 14(3)(viii) as the asset is considered necessary for successful and efficient operation of the generating station.	37.10
16	Purchase of Tan Delta and capacitance Test Kit and insulation tester.	53	Presently, generating station is lacking reliable Testing Kits for testing of Generator Transformers and other associated instruments. These instruments are of utmost importance with regards to regular inspection for ensuring healthiness of the instruments. In view of above, it is proposed to purchase Tan Delta and Capacitance Test Kit for an amount ₹47.00 lakh and insulation tester for an amount ₹6.00 lakh.	Not Allowed as the assets is of minor nature.	0.00
17	Purchase of Penstock Flow meters.	42.40	The generating station is most prestigious and one of the oldest power Station of NHPC. Presently, there are no flow meters installed to measure the flow of incoming water through the Penstocks. Due to this, there is no availability of Real-Time data of Water Flow.	Allowed under Regulation 14(3)(viii) since the asset is considered necessary for successful and efficient operation of the generating station.	42.40

			Moreover, Penstock Flow meters are a must to know the performance of the machines.		
18	Complete Replacement of 245 KV metering CT of better accuracy Class (0.2) at Power House	245.08	As per CEA Guidelines the “Energy accounting and Audit meters shall be of accuracy class of 0.2 and the accuracy Class of CT & VT shall not be inferior to that of associated meters”. The associated meters (SEM) installed at Generator and Feeder of generating station is of accuracy class of 0.2. Hence C.T of 0.2 Class is required to adhere the guidelines of CEA. Accuracy class of our existing CT is 1. Therefore it is proposed to purchase 42 nos. CT with better accuracy Class. This will improve our energy accounting. (AIN no 2022030189-94). The Case is under tendering Stage. WDV: Rs 140105. This Item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) after reduction of gross value of old asset, as the asset is considered necessary for successful and efficient operation of the generating station. The gross value of old asset is indicated as ₹15.63 lakh	229.45 (245.08-15.63)
19	Construction of boundary wall around Jyotipuram township of Salal power Station	259.60	Road leading to Arnas, Gool area was passing through colony area, thus the compound walling could not be done early. Security of colony has always remained at threat due to and fro movement of the vehicular traffic through colony. After much persuasion BRO agreed to realign the road outside colony area and is under construction. Now it has become necessary to construct compound wall around colony from security point of view. Number of correspondence from security agencies including IB has been	Allowed under the Regulation 14(3) (iii) for safe and successful operation of the generating station.	259.60 However, the petitioner is directed to furnish the necessary documents as regards the advice/ directions revived from appropriate Government authority.

			received for the same.		
Total Amount claimed		1958.06		Total amount allowed	1730.79

2016-17

(₹ in lakh)					
Sl. No.	Assets/ Works	Amount Claimed	Justification submitted by the petitioner	Remarks on admissibility	Amount Allowed
1	Inspection Vehicle - Car - Purchase of One no. Car/ Innova or Equivalent.	12.32	The asset is to be processed against the replacement of car. The said vehicles are a part of the sanctioned strength of generating station.	Allowed under Regulation 14(3) (iii) for safe and successful operation of the generating station. The gross value of old asset is indicated as ₹4.44 lakh	7.88 (2.32-4.44)
2	Inspection Vehicle - Purchase of One no. Scorpio/Equivalent.	12.32	The asset is to be processed against replacement of Scorpio utilized for the purpose of providing conveyance facilities to the worthy head of the project.	Allowed under Regulation 14(3) (iii) for safe and successful operation of the generating station .The gross value of old asset is indicated as ₹7.13 lakh	5.19 (12.32-7.13)
3	Inspection Vehicle - Purchase of one no. Tata Sumo/ Bolero/ Xylo or Equivalent.	12.32	The asset is to be processed against replacement of TATA Sumo. The said vehicles are a part of the sanctioned strength of power station. The respective models and kilometers clocked are 2003 and 240921 Kms.	Allowed under Regulation 14(3) (iii) for safe and successful operation of the generating station .The gross value of old asset is indicated as ₹4.23 lakh	8.09 (12.32-4.23)
4	Proper Drinking Water System at Salal Power Station -	26.50	The existing water supply line has developed cracks & leakages and needs to be essentially replaced for water supply arrangement	Allowed under Regulation 14(3) (viii) as the asset is considered necessary for	16.21 (26.50-10.29)

	Developing proper drinking water system. - Providing and laying 4"/ 6" pipe line from Soo nallah to Jyotipuram Reservoir (where ever required) Approx. 4 KM		to residential colony.	successful and efficient operation of the generating station. The gross value of old asset is indicated as ₹10.29 lakh	
5	Replacement of AC Plant at Power House	112.00	The existing AC plant is very old and is obsolete model. Its spares are not readily available in market. So, it has been proposed to replace this old AC plant with new air cooled or water cooled AC plant as per latest pollution norms. This item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹11.44 lakh	100.56 (112-11.44)
6	Purchase of 03 Nos. Single Phase 50 MVA 220/√ 3/11 KV against replacement of existing CGL make Transformers.	1200.00	10 Nos. CGL make transformers were purchased in the year 1978. With the gradual process of ageing and owing to continuous usage of these generator transformers, they have started giving problems. Their useful life of 35 years is also over. In this regard, advice of the OEM was taken, which suggested the replacing of these transformers with new ones. Additionally, a case for Up rating of generating station is under tendering stage at Corporate Office, which will ensure more efficient runners/ turbines i.e. generating Rated Power (115 MW) at Lower Heads (85 Mtr instead of 94.5 Mtr.), for which generator transformers of higher capacity is required. Therefore, it is suggested	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for successful and efficient operation of the generating station. The gross value of old asset is indicated as ₹183.96 lakh	1016.04 (1200.00-183.96)

			to purchase transformers of little higher capacity i.e. 50 MVA in place of existing 43.3 MVA capacity. This Item was separately capitalized, hence proposed for replacement under additional capitalization.		
7	LT Distribution Panel for Dewatering and Drainage system	22.40	Eight numbers of 225 HP additional pumps, starter panels have been purchased for drainage and dewatering system of power station. Out of them some are new and some are replacement of 225 HP pumps. Existing LT panels at stage 1 and stage 2 have no provision to accommodate these new pumps and a temporary arrangement has been made for supply to these pumps which are not only highly unreliable but also possess additional safety hazards. Therefore it is proposed to purchase new LT panel against temporary arrangement. This item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹25.68 lakh (18.71+6.97)	(-) 3.28 (22.40-25.68)
8	Purchase of 220 V DC Battery Charger for Stage-1	9.36	Existing 220 V DC Battery Charger installed at Power Station was purchased in year 2002. With the passage of time and continuous wear and tear, equipment has begun giving frequent problems. As the battery charger is the lifeline of Control Protection System of Power House. Therefore, for reliable operations of equipments in generating station it is proposed to purchase a new 220 volt DC battery Charger. This item was separately capitalized, hence	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for successful and efficient operation of the generating station. The gross value of old asset is indicated as ₹4.83 lakh	4.53 (9.36-4.83)

			proposed for replacement under additional capitalization.		
9	Purchase of 48 V DC Battery Charger	4.48	Existing 48 V DC Battery Charger installed in Power Station was purchased in year 2002. With the passage of time and continuous wear and tear, Equipment has begun giving frequent problems. As the Battery Charger is the lifeline of Protection System/ PLCC of Power House. Therefore, for reliable operations of equipments in Power Station it is proposed to purchase a new 48 volt DC battery Charger. WDV: Rs 108000. This Item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for successful and efficient operation of the generating station. The gross value of old asset is indicated as ₹1.65 lakh	2.83 (4.48-1.65)
10	Installation of new digital X-Ray plant	10.00	The existing X-Ray plant is 20 years old it is proposed to replace this with of latest model like digital X-Ray plant. This item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) as the expenditure is in respect of asset which is for the benefit of employees. This is necessary and contributes to the successful and efficient operation of the generating station. The gross value of old asset is indicated as ₹4.16 lakh	5.84 (10.00-4.16)
11	Restoration of Installed Capacity	1910.00	Since commissioning, generating station could deliver maximum of around 650 MW continuously against installed capacity of 690 MW (6 x115) due to existing reduced net head conditions. Accordingly, a restoration of installed capacity has been proposed which has been concurred by CEA vide its	Allowed under Regulation 14(3) (viii) since the work is considered necessary for successful and efficient operation of the generating station. An amount of ₹ 897.00 lakh is de-capitalized on account of 6 nos. of old runners (de-	1013.00 (1910.00-897.00)

			letter no. 13/2-General/HE &R M/ 2012/882 dated 23/8/2012 to achieve the station output of 690 MW. The proposal on implementation shall result in excess generation and improved PAF. It is estimated that around 274 MU additional generation can be made after execution of work. At present the proposal is under tendering and financial bid has been opened. The work is in advance stage of award. The complete proposal shall be implemented in a span of 4 years.	capitalized value obtained from truing-up Petition No. 71/GT/2013 filed for the year 2009-12).	
12	Modified brake jack assembly along with panel	63.60	The present Brake-Jack system of generating units is of single acting type having gravity release, due to which sometimes, the pads remain stuck to the liner, even after releasing of brake and subsequently are released with manual lever and thus contribute to delay in smooth and timely start-up of machine. It is therefore proposed to procure modified Brake-Jack system having support for release through spring stiffness to ensure reliable operation. These will do away unnecessary delay at the time of Start-Up procedure of the Machine.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹24.70 lakh	38.90 (63.60-24.70)
13	Automation of Drainage and Dewatering Sumps of the Salal Power House.	53.00	There are various sumps at generating station which ensure efficient collection of seepage water from the dam. Routine and timely dewatering of these sumps is a must to avoid flooding/ submergence of the generating station. Therefore, efficient and trouble free dewatering of these sumps is very critical. Presently, these sumps are being	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for successful and efficient operation of the generating station.	53.00

			dewatered through manual monitoring. With the subsequent decrease in experienced/ sufficient manpower, it is imperative to go for automation of drainage and dewatering system of the generating station for reliable and trouble-free operation.		
14	Purchase of portable DGA Test Kit and Partial Discharge Test Kit	56.00	Presently, generating station is lacking reliable testing kits for testing of generator transformers and other associated instruments. These instruments are of utmost importance with regards to regular inspection for ensuring healthiness of the Instruments. Purchase of these mandatory test kits will ensure more authentic and timely prediction of test results. This will also forgo unnecessary wastage of time, money and man days in transporting oil to various test labs and getting delayed results. In view of above, it proposed to purchase portable DGA test kit for amount ₹28.00 lakh and Partial Discharge Test Kit for amount ₹ 28.00 lakh.	Not allowed since the assets are minor in nature	0.00
15	Planning, design and construction of sewerage treatment plant along with laying of pipes, septic tank and manholes etc. wherever required at generating station.	225.00	The STP along with laying of pipes etc. is being proposed to comply the observations raised by the Pollution Control Board of J&K.	Allowed in terms of Regulation 14(3) (ii) as the expenditure is in compliance with the directions of the J&K State Pollution Control Board as regards connection of STP facility and complete treatment of sewerage.	225.00
16	Purchase of High Mast Lighting.	94.98	Generating station lies in the vicinity of high mountainous and densely forested areas. These areas provide potential hide-outs for terrorists and	Allowed under the Regulation 14(3) (iii) for safe and successful operation of the generating station.	94.98 The petitioner is directed to furnish documents in

		are extremely critical from security point of view. To facilitate watch and security and tracking of any unwanted movement at critical areas at night, it is required to have optimum level of illumination at identified places. High mast type area lighting has more coverage per watt of installation, ease of maintenance due to centralization and aesthetic appeal. It is proposed to purchase 8 nos. high masts.		regard to the advice/ directions received from Appropriate Government authority, at the time of truing-up
Total amount claimed	3824.28		Total amount allowed	2588.77

2017-18

<i>(₹ in lakh)</i>					
Sl. No.	Assets/ Works	Amount Claimed	Justification submitted by the petitioner	Remarks on admissibility	Amount allowed
1	Automation of the plant for efficient operation and better control with real time monitoring of auxiliary systems (SCADA)	404.30	This asset/work is already been approved by the Commission for amount ₹311 lakh in 2012-13 for the period 2009-14. Being an old generating station, various sub systems of power house like cooling water system, drainage dewatering system, brakes, governors etc were not compatible for overall integration in Plant SCADA. As up gradation of these systems for seamless integration in SCADA system took too much time, the work could not be capitalized in 2009-14. However, now the technical specification and scope of work has been finalized by the generating station and case has been put up for approval and the work shall be capitalized in 2017-18.	Allowed under Regulation 14(3) (viii) as the asset is already approved and is necessary for efficient operation of the project.	404.30
2	Inspection Vehicle - Purchase of One no. Tata	14.16	The said asset is to be processed against the replacement of TATA Sumo. The said vehicles	Allowed under Regulation 14(3) (iii) for safe and successful	9.93 (14.16-4.23)

	Sumo/ Bolero/ Xylo or Equivalent.		are a part of the sanctioned strength of generating station.	operation of the generating station. The gross value of old asset is indicated as ₹4.23 lakh	
3	Motor Cycle - Purchase of Two nos Motor Cycle	2.83	The purchase case is to be processed against replacement of existing 02 Nos. motor cycles, as part of sanctioned strength for O&M stage of the generating station.	Allowed under Regulation 14(3) (iii) for safe and successful operation of the generating station. The gross value of old asset is indicated as ₹0.48 lakh	2.35 (2.83-0.48)
4	Replacement of Tata P&H crane 670 TC (70 Ton Capacity) Truck mounted Crane	436.97	In lieu for replacement of Tata P&H 670 TC having a capacity of 60MT which has to be phased out owing to its obsolescence and unavailability of spares in NHPC Stores and market as OEM has closed its production. The said crane caters to the needs of cleaning of the trash racks of the reservoir and penstock Inlets, loading & unloading of heavy underwater components like runner, shafts, top cover and lifting beams as well as placing of concrete tetra pod structures as and when required on tail race tunnel outlets to prevent its erosion etc. Often these activities have to be carried out at/ from odd/ difficult locations/ positions which require a Crane of higher capacity to have enhanced load lifting capabilities at various operating radii of the Crane. Therefore, a crane of a higher capacity i.e. 70 MT is being proposed so as to have better factor of safety, flexibility and ease in carrying out the above mentioned activities which are very important and critical for smooth Operation and maintenance of the generating station. This	Allowed under Regulation 14(3) (viii) as the asset is considered necessary for successful and efficient operation of the generating station. The gross value of old asset is indicated as ₹36.23 lakh	400.74 (436.97-36.23)

			Item was separately capitalized, hence proposed for replacement under additional capitalization.		
5	Purchase of 03 Nos. Single Phase 50 MVA 220/√ 3/11 KV against replacement of existing CGL make Transformers.	1200.00	10 Nos. CGL make transformers were purchased in the year of 1978. With the gradual process of aging and owing to continuous usage of these Generator Transformers, they have started giving problems. Their useful life of 35 years is also over. In this regard, advice of the OEM was taken, which suggested the replacing of these generator transformers with new ones. Additionally, a Case for up rating of generating station is under tendering stage at corporate office, which will ensure more efficient runners/ turbines i.e. generating rated power (115 MW) at lower heads (85 Mtr instead of 94.5 Mtr.), for which also require generator transformers of higher capacity. Therefore, it is suggested to purchase transformers of little higher capacity i.e. 50 MVA in place of existing 43.3 MVA capacity. This item was separately capitalized, hence proposed for replacement under additional capitalization.	Allowed under Regulation 14(3) (viii) as the asset is considered necessary for successful and efficient operation of the generating station. The gross value of old asset is indicated as ₹183.96 lakh	1016.04 (1200.00-183.96)
6	Restoration of Installed Capacity	1719.00	Since commissioning, generating station could deliver maximum of around 650 MW continuously against installed capacity of 690 MW (6X115) due to existing reduced net head conditions. Accordingly, a restoration of installed capacity has been proposed which has been concurred by CEA vide its letter no. 13/2-General/ HE & RM/ 2012/882 dated 23/8/2012 to achieve the station output of 690 MW. The proposal	Allowed under Regulation 14(3) (viii) as the work is considered necessary for successful and efficient operation of the generating station.	1719.00

			on implementation shall result in excess generation and improved PAF. It is estimated that around 274 MU additional generations can be made after execution of work. At present the proposal is under tendering and financial bid has been opened. The work is in advance stage of award. The complete proposal shall be implemented in a span of 4 years.		
7	Flap type gate	200.00	Loss of generation is occurring for cleaning of trash deposited during peak season. It is proposed that the design of radial gate no. 11 is modified to flap gate type so that trash can be flushed out from the reservoir easily by operating this gate and generation loss on account of trash choking can be minimized.	Allowed under Regulation 14(3) (viii) as the asset is considered necessary for efficient operation of the generating station.	200.00
8	Planning, design and construction of bachelor accommodation for executives at Salal Power Station.	318.50	Maximum bachelor officer's have been accommodated in Salal sadan and there has become scarcity of appropriate accommodations for visitors. It is anticipated that such type of additional accommodation shall be required in near future. Thus it has been proposed to construct bachelor accommodation for 24 officers in first phase, wherein executives from the level E-1 to E-6 shall be accommodated.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for the benefit of employees at remote station. This will also contribute to the efficient operation of the generating station.	318.50
Total amount claimed		4295.76		Total amount allowed	4070.86

2018-19

(₹ in lakh)

Sl. No	Assets/ Works	Amount Claimed	Justification submitted by the petitioner	Remarks on admissibility	Amount Allowed
1	Automation of the plant for efficient operation and	620.00	Asset/ work has already been approved by the Commission for amount ₹311 lakh in 2012-13 for the	Allowed under Regulation 14(3) (viii) as the asset is already approved	620.00

	better control with real time monitoring of auxiliary systems (SCADA)		tariff period 2009-14. Being an Old Power Station, various sub systems of Power House like cooling water system, drainage dewatering system, brakes, governors etc were not compatible for overall integration in Plant SCADA. As up gradation of these systems for seamless integration in SCADA system took too much time, the work could not be capitalized in 2009-14. However, now the technical specification and scope of work has been finalized by the Power Station and case has been put up for approval and the work shall be capitalized in year 2017-18.	and id necessary for efficient operation of the generating station.	
2	Inspection Vehicle - Purchase of Two nos Bolero/ Xylo/ Equivalent.	24.80	The asset/ work is to be processed against replacement of Maruti Gypsy. The said vehicles are a part of the sanctioned strength of Power Station.	Allowed under Regulation 14(3) (iii) for safe and successful operation of the generating station. The gross value of old asset is indicated as ₹2.73 lakh	22.07 (24.80-2.73)
3	Inspection Vehicle Purchase of one no. Innova or equivalent.	16.12	The asset/ work is to be processed against replacement of Indigo car utilized for the purpose of providing conveyance facilities to the worthy head of the project	Allowed under Regulation 14(3) (iii) for safe and successful operation of the generating station. The gross value of old asset is indicated as ₹4.50 lakh	11.62 (16.12-4.50)
4	Purchase of 04 Nos. Single Phase 50 MVA 220/√ 3/11 KV against replacement of existing CGL make Transformers.	1600.00	10 Nos. CGL Make Transformers were purchased in the year of 1978. With the gradual process of ageing and owing to continuous usage of these Generator Transformers, they have started giving problems. Their useful life of 35 years is also over. In this regard, advice of the OEM was taken, which suggested the	Allowed under Regulation 14(3) (viii) as the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹245.28 lakh	1354.72 (1600.00-245.28)

			replacing of these Generator Transformers with new ones. Additionally, a Case for Up rating of Salal Power Station is under Tendering Stage at Corporate Office, which will ensure more efficient Runners/ Turbines i.e. generating Rated Power (115 MW) at Lower Heads (85 mtr instead of 94.5 mtr), for which also require Generator Transformers of higher capacity. Therefore, it is suggested to purchase Transformers of little higher capacity i.e. 50 MVA in place of existing 43.3 MVA capacity. This Item was separately capitalized, hence proposed for replacement under additional capitalization.		
5	Restoration of Installed Capacity	1719.00	Since commissioning, Salal Power Station could deliver maximum of around 650 MW continuously against installed capacity of 690 MW (6X115) due to existing reduced net head conditions. Accordingly, a Restoration of Installed Capacity has been proposed which has been concurred by CEA vide its letter no. 13/2-General/HE&RM/2012/882 dated 23/08/2012 to achieve the station output of 690 MW. The proposal on implementation shall result in excess generation and improved PAF. It is estimated that around 274 MU additional generation can be made after execution of work. At present the proposal is under tendering and financial bid has been opened. The work is in advance stage of award. The complete proposal shall be implemented in a span of 4 years.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station.	1719.00

6	Modified brake jack assembly along with panel	37.20	The present Brake-Jack system of Generating Units of Salal Power Station is of single acting type having gravity release, due to which sometimes, the pads remain stuck to the Liner, even after releasing of Brake and subsequently are released with manual Lever and thus contribute to delay in smooth and timely start-up of machine. It is therefore proposed to procure modified Brake-Jack system having support for release through spring stiffness to ensure reliable operation. These will do away unnecessary delay at the time of Start-Up procedure of the Machine. The case is to be initiated.	Allowed under Regulation 14(3) (viii) since the asset is considered necessary for efficient operation of the generating station. The gross value of old asset is indicated as ₹13.65 lakh	23.55 (37.20-13.65)
Total amount claimed		4017.12		Amount allowed	3750.96

59. Based on the above, the 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
817.19	1730.79	2588.77	4070.86	3750.96

Capital Cost for 2014-19

60. As stated, the closing capital cost arrived at in para 34 of this order as on 31.3.2014 is ₹92085.17 lakh. The same has been considered as the opening capital cost as on 1.4.2014. Accordingly, the capital cost considered for the purpose of tariff for the period 2014-19 is as under:

(₹ in lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	92085.17	92902.36	94633.15	97221.92	101292.78
Additional Capitalization allowed	817.19	1730.79	2588.77	4070.86	3750.96
Capital Cost as on 31st March of the year	92902.36	94633.15	97221.92	101292.78	105043.74

Debt-Equity

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

“19. Debt-Equity Ratio

(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 utilization 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 the 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."

62. The petitioner has submitted that the additional capital expenditure has been proposed to be financed through internal resources and others. Accordingly, in terms of the above regulations, the debt-equity ratio of 70:30 has been considered on the admitted additional capital expenditure, for the purpose of tariff.

Return on Equity

63. 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.

64. 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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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.

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/DICs as the case may be on year to year basis."

65. The petitioner has considered the Rate of Return on Equity as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Base Rate	15.500%	15.500%	15.500%	15.500%	15.500%
Tax Rate (MAT)	18.5%	18.5%	18.5%	18.5%	18.5%
Surcharge	10.0%	10.0%	10.0%	10.0%	10.0%
Education cess	3%	3%	3%	3%	3%
Effective Tax Rate	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of ROE (pre-tax)	19.611%	19.611%	19.611%	19.611%	19.611%

66. Based on the above, Return on Equity has been computed as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Notional Equity	48680.14	48925.30	49444.53	50221.16	51442.42
Addition due to additional capital expenditure	245.16	519.24	776.63	1221.26	1125.29
Closing Equity	48925.30	49444.53	50221.16	51442.42	52567.71
Average Equity	48802.72	49184.91	49832.85	50831.79	52005.07
Return on Equity	9570.70	9645.65	9772.72	9968.62	10198.71

Interest on Loan

67. 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-capitalisation 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 re-financing.*

(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.”

68. The actual loan for the project has already been repaid. The normative loan on account of the admitted additional capital expenditure during the period 2014-17 have also been considered as fully paid, as the admitted depreciation is more than the amount of normative loan in these years. During the years 2017-18 and 2018-19, the addition in the amount of normative loan due to additional capital expenditure is more than the admitted depreciation. In accordance with the first proviso to Regulation 26 (5) of the 2014 Tariff Regulations the last available weighted average rate of interest considered for this generating station is 7.42% and the same has been considered for the purpose of tariff. Accordingly, Interest on normative loan for the period 2014-19 is as worked out as under:

	(₹ In lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	43405.04	43977.07	45188.62	47000.76	49850.36
Cumulative repayment upto previous year	43405.04	43977.07	45188.62	47000.76	49550.85
Net Loan-opening	0.00	0.00	0.00	0.00	299.51
Repayment during the year	572.03	1211.55	1812.14	2550.09	2854.23
Additions due to additional capital expenditure	572.03	1211.55	1812.14	2849.60	2625.67
Net Loan-Closing	0.00	0.00	0.00	299.51	70.95
Average Loan	0.00	0.00	0.00	149.76	185.23
Weighted Average Rate of Interest on Loan	7.42%	7.42%	7.42%	7.42%	7.42%
Interest on normative loan	0.00	0.00	0.00	11.11	13.74

Depreciation

69. 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) alongwith 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.”

70. The COD of the generating station is 1.4.1995. Since the generating station has completed 12 years of operation as on 31.3.2007, the remaining depreciable value

has been spread over the balance useful life of the assets. Accordingly, the depreciation has been computed as follows:

	(₹ In lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross	92085.16	92902.35	94633.14	97221.91	101292.77
Additional capital expenditure	817.19	1730.79	2588.77	4070.86	3750.96
Closing gross block	92902.35	94633.14	97221.91	101292.77	105043.73
Average gross block	92493.76	93767.75	95927.53	99257.34	103168.25
Depreciable Value	83148.67	84295.26	86239.06	89235.90	92755.71
Balance Useful life of the asset	16.0	15.0	14.0	13.0	12.0
Remaining Depreciable Value	32480.11	31818.18	31741.13	33151.17	34250.80
Depreciation	2030.01	2121.21	2267.22	2550.09	2854.23

O&M Expenses

71. The generating station is in operation for three or more years as on 1.4.2014. Accordingly, in terms of sub-section (a) of clause (3) of Regulation 29 of the 2014 Tariff Regulations, the year-wise O&M expense norms considered for the generating station of the petitioner for the period 2014-19 is as under:

(₹ In lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
14429.58	15388.29	16410.68	17501.01	18663.78

Interest on working capital

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

28. Interest on Working Capital:

(1) *The working capital shall cover*

(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 expense specified in regulation 29; and*
- (iii) *Operation and maintenance expenses for one month.*

73. Accordingly, the following receivables are allowed as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Two months of annual fixed cost	4515.74	4712.68	4939.06	5214.34	5510.38

74. Accordingly, the following maintenance spares are allowed as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of maintenance spares (15% of O & M)	2164.44	2308.24	2461.60	2625.15	2799.57

75. Accordingly, the following O&M Expenses for one month are allowed as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O & M for one month	1202.47	1282.36	1367.56	1458.42	1555.32

Rate of interest on working capital

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

“Interest on working Capital: (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.”

77. 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

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

	(₹ In lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	2164.44	2308.24	2461.60	2625.15	2799.57
O & M expenses	1202.47	1282.36	1367.56	1458.42	1555.32
Receivables	4515.74	4712.68	4939.06	5214.34	5510.38
Total	7882.64	8303.28	8768.21	9297.91	9865.26
Interest on Working Capital	1064.16	1120.94	1183.71	1255.22	1331.81

79. Accordingly, the 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
Return on Equity	9570.70	9645.65	9772.72	9968.62	10198.71
Interest on Loan	0.00	0.00	0.00	11.11	13.74
Depreciation	2030.01	2121.21	2267.22	2550.09	2854.23
Interest on Working Capital	1064.16	1120.94	1183.71	1255.22	1331.81
O & M Expenses	14429.58	15388.29	16410.68	17501.01	18663.78
Annual Fixed Charges	27094.44	28276.10	29634.33	31286.05	33062.28

Normative Annual Plant Availability Factor

80. 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 60% has been considered for this generating station.

Design Energy

81. The Commission in its order dated 27.6.2011 in Petition No.104/2010 had approved the annual Design Energy (DE) of 3082.00 Million Units 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 hereunder:

Month	Design Energy (MUs)
April	189.52
May	324.94
June	471.9
July	487.70
August	487.70
September	424.30
October	229.61
November	128.63
December	94.57
January	60.69
February	68.97
March	113.47
Total	3082.00

Application Fee and Publication Expenses

82. 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 for the period 2014-19 in terms of the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012. The petitioner vide affidavit dated 13.10.2014 has also submitted that an amount of ₹366088/- has been incurred towards publication of the tariff petition 2014-19 in the newspapers. Accordingly, in terms of Regulation 52 of the 2014 Tariff Regulations, we direct that the petitioner shall be entitled to recover the filing fees and the expenses incurred on publication of notices for the period 2014-19 directly from the respondents.

83. 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.

84. Petition No. 236/GT/2014 is disposed of in terms of the above.

Sd/-
(A.S. Bakshi)
Member

Sd/-
(A.K.Singhal)
Member

Sd/-
(Gireesh B. Pradhan)
Chairperson