CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 231/GT/2014

Coram:
Shri Gireesh B. Pradhan, Chairperson
Shri A.K.Singhal, Member
Shri A. S. Bakshi, Member
Dr. M. K. Iyer, Member

Date of Order: 30th August, 2016

In the matter of

Revision of tariff for the period 2009-14 after truing up exercise and determination of tariff for 2014-19 in respect of Dulhasti Hydroelectric Power Station (390 MW).

AND

In the matter of

NHPC Ltd, NHPC Office Complex, Sector 33, Faridabad – 121003

.....Petitioner

Vs

- 1. Punjab State Power Corporation Ltd The Mall, Near Kali Badi Mandir, Patiala – 147 001
- 2. Haryana Power Utilities, Shakti Bhawan, Sector, 6 Panchkula – 134 109
- 3. BSES Rajdhani Power Ltd BSES Bhawan, Nehru Place, New Delhi – 110 019
- 4. Uttar Pradesh Power Corporation Ltd Shakti Bhawan, 14, Ashok Marg, Lucknow 226 001
- BSES Yamuna Power Ltd
 Shakti Kiran Building,
 Karkardooma, New Delhi 110 072
- Engineering Department, 1 st Floor, UT Secretariat, Sector 9D, Chandigarh – 160 009



- 7. Tata Power Delhi Distribution Ltd 33 kV Sub-station, Hudson Lane, Kingsway Camp Delhi – 110 009
- 8. Power Development Department, Civil Secretariat, Jammu-180001 (J & K)
- 9. Jaipur Vidyut Vitran Nigam Ltd Vidyut Bhawan, Janpath, Jaipur 302 205
- 10. Jodhpur Vidyut Vitran Nigam Ltd New Power House, Industrial Area, Jodhpur – 342 003
- 11. Uttranchal Power Corporation Ltd Urja Bhawan, Kan wali Road, Dehradun – 248 001
- Ajmer Vidyut Vitran Nigam Ltd Old Power House,
 Hatthi Bhatta, Jaipur Road,
 Ajmer – 305 001

.....Respondents

Parties Present

Shri. A.K Pandey, NHPC
Shri. Piyush Kumar, NHPC
Shri Naresh Bansal, NHPC
Shri Jitendra Kumar Jha, NHPC
Shri R.B. Sharma, Advocate, BRPL
Shri S.K Agarwal, Advocate, Rajasthan Discoms
Shri G.L Verma, Advocate, Rajasthan Discoms
Ms Neelam, Advocate, Rajasthan Discoms

ORDER

The petition has been filed by NHPC Ltd for revision of tariff of Dulhasti Hydroelectric Station (3 x 130 MW) ('the generating station') for the period 2009-14 after truing-up exercise in terms of Regulation 6(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ("the 2009 Tariff Regulations") and for determination of tariff for the period 2014-19 in terms of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 ("the 2014 Tariff Regulations")

2. The generating station was declared under commercial operation on 7.4.2007. Petition No. 60/2010 was filed by the petitioner for determination of tariff of the generating station for the period 2009-14 and the Commission by order dated 30.5.2011 had determined the annual fixed charges for the generating station for the said period based on the capital cost of ₹511605.50 lakh as on 1.4.2009. Thereafter, by order 13.2.2014 in Petition No.141/GT/2013, the annual fixed charges of the generating station for 2009-14 were revised after truing-up exercise based on the actual additional capital expenditure incurred during the period 2009-12 and the projected additional capital expenditure for the period 2012-14. The annual fixed charges allowed for the period 2009-14 by the said order dated 13.2.2014 are as under:

					(₹in lakh
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	46649.39	46111.00	45582.54	34729.27	34729.27
Interest on Loan	20851.70	18553.98	17078.16	14736.57	12697.92
Depreciation	26572.78	26629.31	26709.59	26767.60	26795.26
Interest on Working Capital	2702.23	2686.72	2691.46	2465.06	2473.27
O & M Expenses	14824.24	15672.19	16568.64	17516.36	18518.30
Total	111600.34	109653.19	108630.38	96214.86	95214.01

Revision of Annual Fixed Charges for 2009-14

- 3. Clause (1) of Regulation 6 of the 2009 Tariff Regulations provides as under:
 - "6. Truing up of Capital Expenditure and Tariff (1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up.

Provided that the generating company or the transmission licensee, as the case may be, may in its discretion make an application before the Commission one more time prior to 2013-14 for revision of tariff."

4. The petitioner in this petition has claimed revision of tariff for 2012-14 based on the actual additional capital expenditure incurred during the period 2012-14 after truing up exercise in terms of Regulation 6(1) of the 2009 Tariff Regulations. Accordingly, the annual fixed charges claimed by the petitioner for the period 2012-14 are as under:

		(₹in lakh)
	2012-13	2013-14
Return on Equity	39115.87	41474.07
Interest on Loan	14909.66	12788.17
Depreciation	26755.88	26787.71
Interest on Working Capital	2559.85	2615.57
O & M Expenses	17516.36	18518.30
Total	100857.63	102183.82

Capital cost

- 5. 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;"
- 6. The Commission in order dated 13.2.2014 in Petition No. 141/GT/2013 had considered the closing capital cost of ₹515196.48 lakh as on 31.3.2012. Accordingly, this capital cost of ₹515196.48 lakh has been considered as the opening capital cost as on 1.4.2012 for revision of tariff for 2012-14.

Actual Additional Capital Expenditure

- 7. Regulation 9 (2) of the 2009 Tariff Regulations provides as under:
 - "9. (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

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(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-materialization 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 kilometres of the power station if, the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility."
- 8. The projected additional capital expenditure allowed for the period 2012-14 in order dated 13.2.2014 in Petition No.141/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 13.2.2014 in Petition No. 141/GT/2013	870.52	195.00
Actual additional capital expenditure claimed	645.05	519.37

9. 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:

À,

(₹in lakh)

			(₹ in lakh)
SI		2012-13	2013-14
No 1	Additional Capitalization (claimed for purpose of tariff)		
(a)	Additions		
i	Additional Capitalization against works projected and allowed for	482.81	24.77
•	additional capitalization for 2012-13 and 2013-14	102.01	
ii	Additional Capitalization against works projected and allowed in the	205.96	371.39
	years 2009-10, 2010-11 and 2011-12		
iii	Additional capitalization not projected/not allowed but capitalized due	36.82	3939.29
	to actual site requirements (being claimed for additional		
	capitalization)		
	Total (a)	725.59	4335.45
(b)	Deletion / Deduction		
i	Deletion of assets on account of sale of assets/assets written off	(-) 56.57	(-) 7.31
	during the year	2.22	() (= 0=
ii	Deletion of assets on account of rectification (item wrongly	0.00	(-) 17.97
:::	capitalized in earlier years)	0.00	() 22 00
iii	Consumption of capital spares (deletion to be claimed)	0.00	(-) 33.06
iv	Transfer to Obsolete account Total (b)	(-2.95	0.00
(c)	Net additional capitalization to be claimed (c)=(a)+(b)	(-) 59.52 666.07	(-) 58.34 4277.11
(c) 2	Additional Capitalization (not claimed for the purpose of tariff)	000.07	4211.11
(d)	Addition		
i	Not projected/not allowed but capitalized due to actual site	1092.78	69.32
'	requirements (not being claimed for additional capitalization / Under	1032.70	00.02
	exclusion category)		
ii	Transfer to obsolete	2.95	0.00
iii	Inter head adjustments	8.73	0.00
iv	IUT Transfer	5.10	0.00
	Total (d)	1109.57	69.32
(e)	Deletion	-	
i	Consumption of capital spares (deletion not be claimed/Under	(-) 84.20	(-) 284.96
	exclusion category)		
ii	Deletion under exclusion category (deletion for minor	(-)1.87	0.34
	assets/tools/tackles etc. which were not considered for additional		
	capitalization)		
iii	Inter head adjustments	(-) 7.11	0.00
iv	IUT Transfer	(-) 2.33	0
(6)	Total (e)	(-) 95.50	(-) 285.30
(f)	Net additional capitalization under Exclusion category (f)=(d)+(e)	1014.06	(-) 215.98
(g)	Net additional capitalization (including IUT) as per books of accounts	1680.14	4061.13
2	(g)=((c)+(f)		
3	Net Additional Capitalization claimed for tariff purpose	666.07	1277 11
	Net additional capitalization as above (c) Add: Assumed deletions	666.07	4277.11 (-) 1.89
	Add: Assumed deletions Add: Liability existing as on 31.3.2009 and discharged	(-) 16.97	. ,
	Add: Liability existing as on \$1.3.2009 and discharged Add: Liability discharged during the year for additional capitalization	0.10 49.43	0.00
	in 2009-14	49.43	58.48
	Less: Un-discharged liability for the additional capitalization 2009-14	53.59	3814.34
	Net additional capital expenditure claimed	645.05	519.37
	net additional capital expenditure claimed	040.00	J 13.31

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- The respondent, UPPCL in its reply affidavit dated 2.9.2014 has submitted that the additional capital expenditure due to actual site requirement which were not allowed /projected (inverter, replacement of equipment etc.,) claimed during the years 2012-13 and 2014 may not be allowed since the same were neither allowed nor projected earlier otherwise the process of prudence check will have no meaning. It has also submitted that the petitioner may meet the said expenditure out of the O&M expenses allowed. Further, the respondent vide reply affidavit dated 7.1.2015 has submitted that the petitioner may be directed to submit the audited certificate of the payment of amount towards electricity charges during construction period but not capitalized upto 2012-13. It has also submitted that the justification of balance amount of ₹151.11 lakh included in the amount of ₹3939.29 lakh in 2012-14 may be submitted by the petitioner. In response, the petitioner 24.9.2014 has submitted that the additional capital expenditures claimed for 2012-13 are required for successful operation of the generating station and as per site conditions. It has also submitted that all the assets are capital assets and may be allowed by the Commission. The petitioner vide reply affidavit dated 4.2.2015 has clarified that out of the additional capitalization of ₹3939.29 lakh in 2013-14, an amount of ₹3788.18 lakh is on account of electricity bill payable to J&K during construction of the project. It has also submitted that this amount was under dispute and has been settled in 2013-14. The petitioner has further stated that the amount is still under un-discharge and will have not effect in tariff as the same is not paid as indicated earlier. The petitioner has further clarified that the balance amount is on account of purchase of additional equipments during the year.
- 11. The respondent, BRPL has submitted that some of the claim of the petitioner for ₹36.82 lakh in 2012-13 are minor in nature and some are in the nature of replacement and hence not permissible under the 2009 Tariff Regulations. As regards the claim of the petitioner for 2013-14, the respondent has submitted that the claim towards electricity charge shall be booked in the revise cost estimates of the project since it pertains to the pre-commissioning period. It has also submitted that the balance items covered under Regulation 9(2)(iv) of the 2009 Tariff Regulations

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are minor and/or in the nature of tools and tackles and are not permissible under the said regulations. In response the petitioner in its rejoinder has submitted that the replacement of inverter has been necessitated due to unavailability of spare parts. It has also submitted the DG set which was earlier part of capital cost was deleted from the balance sheet by mistake in 2011-12 and was reinstated during 2012-13. The petitioner has also clarified that the electricity charges claimed has been indicated as under un-discharged liability which has been discharged in 2014-15.

12. The submissions of the parties have been considered. 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

<u>2012-13</u>

				(₹in lakh)
SI. No.	Assets/works	Projected expenditure allowed in order dated 13.2.2014	Actual expenditure claimed	Remarks on admissibility
1	Landscaping at Power House & HRT area including reclamation of muck disposal area	0.00	94.70	The Commission in order dated 30.5.2011 in Petition No. 60/2010 had allowed the total amount of ₹ 211.50 lakh (₹21.50 lakh in 2009-10, ₹70.00 lakh in 2011-12 and ₹50.00 lakh in 2012-13). Against this, the petitioner has claimed total additional capital expenditure of ₹94.70 lakh under this head. Since the assets/works were allowed on projection basis in order dated 30.5.2011, the actual expenditure same is allowed on prudence check.
2	Treatment of sinking zone at Dam and regarding of approach road leading to Dam	150.00	165.52	The Commission in order dated 30.5.2011 in Petition No. 60/2010 had allowed the capitalization of these assets/works on projected

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3	Hill slope stabilization at	50.00	186.72	basis. However, we are of the
	both bank of Dam			considered view that these works
	(Protection of left bank			are of recurring nature and the
	(downstream) of Dul			expenses towards these works
	Dam by way of providing			shall be met from O&M expenses
	concrete abutment near			allowed to the generating station.
	T-402.			Accordingly, the actual additional
				capital expenditure claimed is not
				allowed. However, in case the
				petitioner is not able to meet the
				expenses from the admissible O&M
				expenses, it is at liberty to
				approach the Commission with
				proper justification at the time of
				truing-up of tariff.
4	Payment of	5.00	35.86	Since the assets/works were
	compensation of land			allowed on projection basis in order
				dated 30.5.2011, the actual
				expenditure same is allowed on
				prudence check.
	Total claimed		482.81	
	Total allowed			130.56

2013-14

(₹in lakh)

		1	ı	(₹in lakh)
SI. No.	Assets/works	Projected expenditure allowed in order dated 13.2.2014	Actual expenditure claimed	Remarks on admissibility
1	Treatment of sinking zone at Dam and approach road leading to Dam	150.00	6.98	The Commission in order dated 30.5.2011 in Petition No. 60/2010 had allowed the capitalization of these assets/works on projected
2	Treatment of sinking zone at Tamuruchi, Dul		12.95	basis. However, we are of the considered view that these works are of recurring in nature and the expenses towards these works
3	Hill slope stabilization at both bank of Dam. (Construction of retaining wall for stabilization of hill slope near vent shaft.)	5.00	4.84	shall be met from O&M expenses allowed to the generating station. Accordingly, the actual additional capital expenditure claimed is not allowed. However, in case the petitioner is not able to meet the expenses from the admissible O&M expenses, it is at liberty to approach the Commission with proper justification at the time of truing-up of tariff.
	Total claimed		24.77	
	Total allowed			0.00

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Works allowed in 2009-10, 2010-11 and 2011-12 but capitalized in 2012-13 & 2013-14

13. 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 are as under:

2012-13

(₹in lakh)

	T	T = -	·		(₹ in lakh)
SI. No.	Assets/works	Projected expenditure allowed in order dated 13.2.2014	Actual expenditure claimed	Submissions of petitioner	Remarks for admissibility
1	Construction of additional block (ground floor) including electric wiring at KV, DPS Kishtwar	20.00	64.80	The petitioner has submitted that the actual cost has gone up due to the fact that additional space was required to accommodate growing number of students as well as for creating modern smart class room. The work was actually completed in 2012-13. Further, one more tender was added as per requirement by KV school for providing smart class room. It has been submitted that the work was awarded in 2011-12 but completed by vendor in 2012-13.	benefit/ welfare of the employees which in turn will contribute to the efficient operation of the project, the expenditure is allowed under Regulation 9(2)(iv) of the 2014 Tariff Regulations, on prudence check.
2	Construction of permanent boundary wall behind office complex at Chenab Nagar.		22.13	The Commission in order dated 30.5.2011 in Petition No. 60/2010 had allowed the total	Since the expenditure incurred is for the safety of the generating station
3	Construction of security fencing at KV, Semina Colony and in the periphery of Chenab Nagar Sector-I.	150.00	22.01	projected capitalization of ₹150 lakh (₹50.00 lakh in 2010-11 and ₹100.00 lakh in 2011-12). Against this, the total	which in turn will facilitate the successful and efficient operation of the generating station, the actual

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4	Construction of security wall behind villa 81-85 & C-0 in Chenab Nagar, Sector-II.		8.75	expenditure in 2012- 13 is ₹135.00 lakh including this expenditure of ₹5.01 lakh in 2010-11, ₹77.10 lakh in 2011- 12 and ₹52.89 lakh in 2012-13.	allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
5	Undergrounding of power cable in A, B, C, D & S Type Qtrs, G. House and office area.	20.00	25.21	The Commission in order dated 30.5.2011 in Petition No. 60/2010 had allowed the total projected capitalization of ₹20.00 lakh in 2009-10. It has also submitted that the total expenditure incurred under this head up to 2012-13 is ₹25.21 lakh including this expenditure claimed in 2012-13. The work was awarded at lowest rates of bidder and escalation is above the awarded cost being higher than projected cost as per market rates.	incurred is for the safety of the
6	Laying of 150 mm dia GI pipe line for integrated water supply scheme of DPS Kishtwar.	10.00	1.92	The petitioner has submitted that the total the Commission in order dated 30.5.2011 in Petition No. 60/2010 had allowed the total projected capitalization of ₹10. 00 lakh in 2010-11. It has also submitted that the actual expenditure claimed under this head is ₹1.92 lakh in 2012-13.	fact that the expenditure incurred is necessary for efficient and successful operation of the project, the actual expenditure is allowed under Regulation 9(2)(iv) of the

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8	Providing & Fixing security fencing of right bank from central store to CISF line at Shalimar Nallah. Construction of	100.00	9.96	The petitioner has submitted that the total amount allowed under this head was ₹100.00 lakh. Out of this, the total expenditure under	In consideration of the submissions and since the expenditure incurred is for the safety of the generating station
	permanent security wall at diesel pump Shalimar			this head upto 2012- 13 is ₹85.16 lakh including the present	which in turn will facilitate the successful and efficient operation
9	Construction of permanent boundary wall at power house area near barrier no. 3 & above TRT gate.		9.04	claim of ₹ 50.42 lakh in 2010-11 & ₹34.74 lakh in 2012-13). It has further submitted that the work was approved under the head 410301 and since work is of similar nature, the expenditure of sl no 6 & 7 above are clubbed with the expenditure of sl. no. 8 though sl no 6 & 7 belong to head 410325.	of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
10	Construction of pucca morcha and watch tower at Semna, Shalimar and DSB.	46.20	4.40	The total amount allowed under this head was ₹46.20 lakh in 2009-10 and ₹30.00 lakh in 2010-11). The	In consideration of the submissions and since the expenditure incurred is for the safety of the generating station
11	Security post/pucca morcha for Dul dam		0.97	total expenditure under this head up to 2012-13 is ₹ 11.33 lakh including the present claim (₹6.93 lakh in 2009-10 & ₹ 5.37 lakh in 2012-13). It has further submitted that the work was approved under the head 410325 and since work is of similar nature, the expenditure of sl. no 9 & 10 are clubbed though sl. no 10 pertain to head 410328.	which in turn will facilitate the successful and efficient operation of the generating station, the actual expenditure incurred of ₹5.37
12	Chassis for fire	29.00	7.39	The petitioner has	In consideration of

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	tender-4 KL TATA / SFC 709 EX BSIII/38 COWL			submitted that against amount allowed under this head amounting to total ₹29.00 lakh, the expenditure upto 2012-13 is ₹33.32 lakh including the present claim (₹8.20 lakh in 2009-10, ₹17.73 lakh in 2011-12, ₹7.39 lakh in 2012-13. It has been further submitted that the increase on account of purchase of two fire tenders as per requirement of disaster management.	allowed under Regulation 9(2)(iv)
13	Chassis for truck TATA model SE 1613 TC 42	11.20	13.62	The petitioner has submitted that against the total approved amount of ₹11.20 lakh in the year 2009-10 by CERC, expenditure under this head upto 2012-13 is ₹13.62 lakh.	fact that the expenditure incurred is necessary for efficient and successful
	Total claimed		205.96		
	Total allowed				205.96

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2013-14

(₹in lakh)

					(₹in lakh)
SI. No.	Assets/works	Projected expenditure allowed in order dated 13.2.2014	Actual expenditure claimed	Submissions of petitioner	Remarks on admissibility
1	Security wall for 33/11KV near power house area at Hasti	100.00	39.40	The petitioner has submitted that expenditure under this head up to 2013-14 is ₹124.55 lakh including the present claim (₹50.42 lakh in 2010-11, ₹34.74 lakh in 2012-13 & ₹39.40 lakh in 2013-14). It has also submitted that the work has been awarded through open tender on lowest cost basis. The petitioner has further submitted that the increase is attributed to rise in prevailing market rates. It has stated that the work was taken up in phases since the area was encroached and removal of encroaches was required with the help of local Authority. The petitioner has submitted that there are still some places where security wall is required and for security of establishments of power station, the IB and CISF has recommended the security fencing at various critical locations. It has also submitted that the same work will spill over to the period 2014-19.	In consideration of the submissions and since the expenditure incurred is for the safety of the generating station which in turn will facilitate the successful and efficient operation of the generating station, the expenditure actually incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations

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2	Channelization of nallah for landscaping of muck disposal area at Hasti	211.50	4.43	The petitioner has submitted that the total amount allowed by Commission's order dated 30.5.2011 is ₹211.50 lakh in 2009-13 and the total expenditure incurred under this head upto 2013-14 is ₹99.13 lakh including the claim. The petitioner has stated that the work could be started only after all the temporary structure in the area was removed, work is under progress.	Since the asset/works were approved by the Commission vide order dated 30.5.2011 in petition No. 60/2010 and the same is necessary for efficient operation of the generating station, the actual expenditure of ₹9.93 lakh incurred for the year is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations after prudence check.
3	Two room accommodation building for security bhawan near Chenab Bhawan	10.00	6.52		prademos emesia
4	Construction of mess and store at CISF HQ at Shalimar, DPS, Kishtwar	46.20	9.38	The petitioner has submitted that the total expenditure under this head up to 2013-14 is 16.31 lakh including this claim (₹6.93 lakh in 2009-10 & 9.38 lakh in 2013-14).	Since the asset/ work had been approved by Commission's order dated 30.05.2011 in petition no. 60/2010, the actual expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations after prudence check
5	Construction of municipal chamber for dumping and segregation of MSW at DSB Colony.	150.00	11.61	The petitioner has submitted that the total approved amount by Commission under this head was ₹150 lakh (₹75 lakh in 2010-11 & ₹75 lakh in 2011-12). The total expenditure under this head upto 2013-14 is 14.11 lakh	Since the asset/work had been approved by Commission's order dated 30.05.2011 in petition no. 60/2010, the actual expenditure incurred is

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				including this claim(₹2.5 lakh in 2011-12 & 11.61 lakh in 2013-14) .	allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations after prudence check.
6	Boundary wall in semna colony along outer periphery of OTC C-Bhawan and Dulhasti Bhawan	150.00	20.07	The petitioner has submitted that the total expenditure under this head up to 2013-14 is ₹155.07 lakh (₹5.01 lakh in 2010-11, ₹77.10 lakh in 2011-12 & ₹52.89 lakh in 2012-13 & ₹20.07 lakh in 2013-14). The work awarded through open tender on lowest cost basis. The increase is only due to increase in prevailing market rates.	Since the asset/ work had been approved by Commission's order dated 30.05.2011 in petition no. 60/2010, the actual expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations after prudence check
7	Extension ramp in T-402 at Dul Dam site DPS Kishtwar	15.00	6.24	The petitioner has submitted that the total approved amount by Commission under this head was ₹15 lakh in 2010-11. The total expenditure under this head upto 2013-14 is ₹6.24 lakh including this claim	
8	Invert concrete work in surge shaft adit and surge escape gallery at Hasti	40.00	21.96	The petitioner has submitted that the total approved amount by Commission under this head was ₹40 lakh (₹10 lakh in 2009-10 & ₹30 lakh in 2010-11). The Total expenditure under this head upto 2013-14 is ₹39.21 lakh including this claim (₹17.25 lakh in 2011-12 & ₹21.96 lakh in 2013-14)	
9	Reclamation of muck disposal area in d/s of HRT adit	211.50	18.04	The petitioner has submitted that the total expenditure under this head upto 2013-14 is 112.74 lakh including this claim (₹94.70 lakh in 2012-13 & ₹18.04 lakh in 2013-14).	Since the asset/work had been approved by Commission's order dated 30.05.2011 in petition no. 60/2010, the actual expenditure

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					incurred is allowed under Regulation 9(2)(iv)
					of the 2009 Tariff Regulations after prudence check
10	Loader cum excavator, Make Escorts Model DIGMAX-II 4X4	20.00	22.21	The petitioner has submitted that the total approved amount by CERC under this head was ₹20 lakh in 2009-10.The Total expenditure under this head upto 2013-14 is 22.21 lakh including this claim'	Since the asset/ work had been approved by Commission's order dated 30.05.2011 in petition no. 60/2010, the actual expenditure incurred is
11	Rough terrain hydraulic mobile crane 20MT-Make: TIL Model: HUSKY 620 with mandatory tools and spares	131.00	118.17	The petitioner has submitted that the total approved amount by Commission under this head was ₹131 lakh in 2009-10.The Total expenditure under this head upto 2013-14 is ₹118.17 lakh including this claim'	allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations after prudence check
12	Mobile Crane: 12.5 MT, 360 Degree Slew type along with stand. Tools & FOC Spares, Escorts, IF 15		81.95	The petitioner has submitted that the total approved amount by CERC under this head was ₹131 lakh in 2009-10.The Total	
13	Freight charges on mobile crane : 12.5 MT, 360 Degree SLEW Type	115.00	2.25	expenditure under this head upto 2013-14 is ₹118.17 lakh including this claim'	
14	Hydraulic Mobile Floor Crane 3T, United Make		1.89		
15	Tata Winger (Ambulance) HI Roof (A.C.), 3200 MM Wheel Base EURO-III	20.50	7.27	The petitioner has submitted that the total approved amount by CERC under this head was ₹20.50 lakh in 2011-12.The Total expenditure under this head upto 2013-14 is ₹7.27 lakh including this claim'	
	Total claimed Total allowed		371.39		371.39
	i Jiai alloweu				31 1.33

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

14. 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:

<u>2012-13</u>

(₹in lakh)

CI	Accetabaseulse	A atural Exman diturn	Culominaiana of	(₹in lakh)
SI.	Assets/works	Actual Expenditure	Submissions of	Remarks for
No.		Claimed	petitioner	admissibility
1	Inverter, capacity- 10KVA, Input - 110VDC, Output - 240V AC, Single phase, 50Hz	21.32	The petitioner has submitted that this was taken on replacement of existing one. Due to non availability of spares the existing inverter was beyond repair. The gross value of existing inverter is not available. Derived original value of the asset is ₹15.03 lakh considering the deaccelerate rate @ 6% p.a.	As the asset/ work is considered necessary for efficient and successful operation of the generating station, the expenditure is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations. The de-capitalized value of the old asset is considered under "Assumed Deletions".
2	Energy Conserver , 7.5 KVA, 3 phase, 4 wire, 50 Hz (street light controller)	0.81	The petitioner has submitted that, during the energy audit suggestion for energy saving was recommended. In compliance to this it was decided to procure and install energy conserver in street light circuit for energy saving.	The expenditure is in nature of minor assets and hence not allowed
3	Tata Tipper 1616/32 BS III,SK 4.5 cubic meter	14.63	The petitioner has submitted that, tripper is taken against the replacement of TATA Truck.	As the asset/ work is considered necessary for efficient and successful operation of the generating station, the expenditure is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations. The

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				de-capitalized value of the old asset is considered under "Assumed Deletions".
4	40 KVA Generator	0.05	The petitioner has submitted that the asset was traced & reinstated in books. Asset shown shortage during 2011-12 & deleted from asset.	submission of the petitioner it is not clear as to whether the traced asset is
	Total claimed	36.82		
	Total allowed			35.95

<u>2013-14</u>

(₹in lakh)

	(₹in lakh				
SI.	Assets/works	Actual	Submissions of	Remarks for	
No.		Expenditure	petitioner	admissibility	
		Claimed			
1	Tailrace Tunnels	44.68	The petitioner has	After prudence	
			submitted that	check of the	
			electricity charge of	details of such	
			₹37.88 crore	deferred	
			pertaining to	liability, total	
			construction period.	estimated cost	
			Since this amount	of package,	
			pertains to pre-	reason for	
			commissioning period,	such	
			this amount has been	withholding, it	
			distributed among the	is noticed that	
	Davis Transla and	4500.00	major head and has	while	
2	Power Tunnels and	1530.60	been claimed under	capitalization	
	Pipelines	477.00	additional	has been	
3	Building containing hydro	177.90	capitalization. It is	made in the	
4	electric generating plant	000.00	pertinent to mention	year 2013-14	
4	Dams and Barrages	208.60	that this was also	for an amount	
5	Hydro mechanical Works -	236.64	disclosed under the	of ₹37.88	
	Dams and Barrages	455.07	head of Contingent	crore, the	
6	Hydro mechanical Works-	155.27	liability in the tariff	same has been	
	Tunnels and canals	0.07	petition filed as on	shown as un-	
7	Hydro mechanical Works-	6.37	COD.	discharged	
	Tail Race including draft			liability as on	
	tube	070.04	In reply to the	31.3.2014.	
8	Main generating	652.91	information sought by	Accordingly,	
_	Equipment		the Commission vide	the	
9	Generator set up	148.96	ROP of the hearing	capitalization	

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	Transformer		dated 17.11.2015, the	of the
10	Cooling water systems	36.10	petitioner vide its	amount is
11	EHV Switchgear Systems	243.46	affidavit dated	allowed under
12	DC Systems/ Battery	52.58	28.01.2016 has	Regulation
	Systems		submitted that the total	9(2)(viii) of the
13	Power and control cables	37.27	amount settled	2009 Tariff
14	Air conditioning and	25.57	between NHPC &	Regulations.
	ventilation systems	_0.0.	JKPDD vide Minutes	J
15	Power line carrier	16.13	of Meeting dated	
	communication systems		28.11.2013 was	
16	Control, Metering and	123.57	₹96.29 crore	
	protection systems		pertaining to pre-	
17	Auxiliary and ancillary	27.92	commissioning period	
' '	systems		capitalized to various	
18	Miscellaneous power plant	63.65	assets heads and rest	
	equipments (through		amount ₹58.41 crore	
	capitalization of major		was charged as	
	works)		revenue expenditure	
	,		under the head	
			"Electricity-	
			Expenditure". The	
			balance amount of	
			₹37.88 crore is	
			capitalized under	
			Regulation 9(2)(viii)	
			but shown as "un- discharged liability" in	
			2013-14.	
19	Star delta control panel for	7.14	The petitioner has	Since the asset
13	submersible pump 400	7.14	submitted that the	is considered
	M3/H AT 65 M head,		Installation of three	necessary for
	model BCTPL XFP-200M		nos. dewatering	successful and
	(2 nos)		pumps along with	efficient
20	Star delta control panel for	2.81	pipeline was done to	operation of
	submersible pump	2.01		the generating
	300M3/H AT 65M head,		dewatering capacity,	station, the
	model BCTPL XFP-200M		to avoid any flooding	expenditure is
21	Sub-slurry/Non Clog Pump	19.10	situation in	allowed under
	150HP, 300M3/H AT 65M		powerhouse and	Regulation
	head & 40M cable,		dewatering of Turbine	9(2)(iv) of the
22	Sub. Slurry/Non Clog	43.41	during annual	2009 Tariff
	Pump 180HP,400M3/H		maintenance.	Regulations
	65M head & 40M cable,			
	Lift, Chain, FLYGT, XFP-			
	200M-CH2,50 HZ (2 Nos)			
23	Sub. Slurry/ Non clog	19.92		
	Pump 180HP,400M3/H			
	65M HEAD & 40M Cable,			
	Lift, Chain, FLYGT, XFP-			
	200M-CH2,50HZ			

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24	Treatment of sinking zone at Tamuruchi, Dul	17.97	The petitioner has submitted that this is a rectification entry and corresponding deletion is shown in 2012-13.	Since this rectification entry is for the asset/work which has not been allowed in this order in 2013-14, the rectification entry is not allowed
25	Hoist- Manual,6 Ton Capacity, 3.0 M Lift	2.29	The petitioner has not submitted any details	The expenditure is
26	Portable diesel filtration Cart equipped with motorized pump	1.68	regarding the claim.	in nature of tools & tackles and hence not
27	Hollow plunger hydraulic cylinder, Cap 10T	6.42		allowed
28	Ultrasonic level transmitter with transmitter with transducer and hand held programmer -MR200	1.44		
29	Dewatering Pump (18.65 KW, 36.0 AMP 415V 3- Phase, 50 Hz)	8.67	The petitioner has submitted that, though power house dewatering system is operating but no provision has been kept earlier for dewatering of different pits for power house like transformer pit, turbine pit, MIV Servo motor pit. Further for inspection of radial gate buckets, dewatering is essential for which no pump was available. As such these pumps have been procured.	Since the asset is considered necessary for successful and efficient operation of the generating station, the expenditure incurred is allowed under Regulation 9(2)(iv) of the 2009 Tariff Regulations.
30	Transformer Oil Filtration Plant, ,500 LPH Capacity, VPI Make	4.54	The petitioner has submitted that, it is required for filtration of transformer oil installed in 33/II KV substation and Distribution transformer.	

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31	Capitalization to S Type quarter.	12.49	The petitioner has submitted that as per	The petitioner has claimed
	quarter.	12.73	new guidelines of	the
			contingent liability,	expenditure
			provision has been	under
			made for management	Regulation
			agreed amount	9(2)(viii) of the
			payable to the	2009 Tariff
			contractor for	Regulations
			construction of S-type quarter of generating	It is noticed that the actual
			station	payment could
			Station	not be made in
				the year 2013-
				14 as an
				amount of
				₹12.49 lakh
				has been
				shown as un-
				discharged
				liability. Accordingly,
				the
				expenditure
				incurred is
				allowed.
32	Chassis for tuck TATA	3.23	The petitioner has	Since the asset
	Model SE 1613 TC 42		submitted that the	is considered
			expenditure is for replacement of	necessary for successful and
			deleted such type of	efficient
			asset in the year	operation of
			2010-11.	the generating
				station, the
				expenditure
				incurred is
				allowed under Regulation
				9(2)(iv) of the
				2009 Tariff
				Regulations.
				The de-
				capitalized
				value of the old
				asset is considered
				under
				"Assumed
				Deletions".
	Total claimed	3939.29		
1	Total allowed			3909.49

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Deletions

15. The following year-wise expenditure has been de-capitalized by the petitioner on account of Sale of Assets/Assets written off/ new assets purchased during the year, replacement and deemed deletion. The details of deletions claimed are as follows:

		(₹in lakh)
	2012-13	2013-14
Deletion of Assets on account of Sale of Assets/Assets	(-) 56.57	(-) 7.31
written off during the year		
Deletion of Assets on account of Rectification	0.00	(-) 17.97
(item wrongly capitalized in earlier years)		
Consumption of capital spares (deletion to be claimed)	0.00	(-) 33.06
Transfer to Obsolete Account	(-) 2.95	0.00
Total	(-) 59.52	(-) 58.34

- 16. The petitioner has de-capitalized an amount of (-) ₹17.97 lakh in 2013-14 on account of rectification for the expenditure on item wrongly capitalized in earlier years (Treatment of sinking zone at Tamuruchi, Dul). Since the capitalization of this amount has not been allowed, the corresponding deletion has also been excluded for the purpose of tariff to avoid double deduction.
- 17. As the corresponding assets other than the above do not render any useful service in the operation of the generating station, the de-capitalization of the above said expenditure as reflected in the books of accounts has been allowed for the purpose of tariff. Accordingly, the following amounts have been deleted for the purpose of tariff:

		(₹in lakh)
	2012-13	2013-14
Deletion of assets on account of Sale of assets/assets written off during the year	(-) 56.57	(-) 7.31
Consumption of capital spares (deletion to be claimed)	0.00	(-) 33.06
Transfer to Obsolete a/c	(-) 2.95	0.00
Total	(-) 59.52	(-) 40.37

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

18. 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, minor assets, etc.,

		(₹in lakh)
	2012-13	2013-14
Exclusions in additions (incurred, capitalized in books but not	1109.57	69.32
to be claimed for tariff purpose)		

19. 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 are allowed.

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

20. The petitioner has de-capitalized following amounts in books of accounts pertaining to capital spares, minor assets such as computers, office equipment, furniture, ladders, pumps, 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
Consumption of capital spares (deletion to not be	(-) 84.20	(-) 284.96
claimed/Under exclusion category)		
Deletion under exclusion category (deletion for minor	(-) 1.87	(-) 0.34
assets/tools/tackles etc. which are not considered for additional		
capitalization)		
Inter head adjustments	(-) 7.11	0.00
IUT Transfer	(-) 2.33	0
Total	(-) 95.50	(-) 285.30

21. 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

A.

- 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."
- 22. The respondent, BRPL vide its reply dated 30.12.2015 has submitted that the minor assets/spares which are de-capitalized is required to be adjusted in the capital cost as per proviso under Regulation 7(1)(c) of the 2009 Tariff Regulations. It has also submitted that the order dated 7.9.2010 cannot undermine the express provisions of the proviso to Regulation 7(1)(c) of the 2009 Tariff Regulations. Referring to the judgment of the Tribunal dated 1.7.2014 in Appeal No.169/2013, the respondent has submitted that the Commission has no power to add, substitute or delete any provisions of the regulation. Accordingly, the respondent has stated that the order dated 7.9.2010 followed by the petitioner is not applicable on this issue and the same may be rejected by the Commission.
- 23. We have examined the matter. It is noticed that the provisions of both the 2004 and the 2009 Tariff Regulations provide that the expenditure on minor items/assets, tools and tackles etc procured after the cut-off date shall not be considered for additional capitalization for determination of tariff. The minor assets are not considered as capital assets and are not permitted to be capitalised after the cut-off date. In our view, since the cost of new assets would not be taken into account by implication of the regulations, the value of old assets should be permitted to continue to form part of the gross block. In other words, if the cost of the new assets is not considered on account of implication of the regulations, 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. The generating station should not be debarred from servicing the capital originally deployed on account of procurement of minor assets, if the services of these assets are being rendered by similar assets which do not form part of the gross block. In this background and in line with the decision of the

Commission in order dated 7.9.2010, the negative entries corresponding to the deletion of minor assets are allowed to be excluded/ ignored for the purpose of tariff.

24. The petitioner has excluded amounts of (-) ₹84.20 lakh and (-) ₹284.96 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 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. Accordingly, the claim of the petitioner for exclusion of negative entries arising out of de-capitalization of capital spares is justifiable provided that the de-capitalized spares are the ones which were not considered in the capital base for the purpose of tariff in the year of capitalization. On verification of the details in the Petition filed by the petitioner for the period 2009-12 and this petition, it is observed that the capital spares decapitalized in books during the period 2012-14 are the ones which were not allowed in the capital cost for the purpose of tariff. In other words, positive entries arising out of their purchase were also excluded/ ignored for the purpose of tariff. In view of the above discussions, the amounts have been allowed to be excluded/ ignored for the purpose of tariff. The exclusion of negative entries arising due to inter-head adjustments is also allowed as the positive adjustments have also been excluded/ ignored. Similarly, exclusion of negative entries arising due to inter unit transfer of minor are allowed as the capitalization of these minor assets are not allowed after the cut-off date. Accordingly, the following amounts have been excluded/ ignored for the purpose of tariff as under.

		(₹in lakh)
	2012-13	2013-14
Exclusions in additions	1109.57	69.32
Exclusions in deletions	(-) 95.50	(-) 285.30
Total exclusions allowed	1014.07	(-) 215.98

Assumed Deletions

25. As per consistent methodology adopted by the Commission, expenditure on replacement of assets, if found justified is allowed for the purpose of tariff provided that the capitalization of the said asset is followed by the de-capitalization of the original value of the old asset. However, in certain cases where de-capitalization is affected in books during the following years, to the year of capitalization of new asset, the de-capitalization of the old asset for the purpose of tariff is shifted to the very same year in which the capitalization of the new asset is allowed. Such de-capitalization which is not a book entry in the year of capitalization is termed as "Assumed deletion". The amounts considered by the petitioner under this head are as under:

	(₹in lakh)
2012-13	2013-14
(-)16.97	(-)1.89

26. It has been observed that the petitioner has considered de-capitalization of (-) ₹15.03 lakh and (-) ₹1.94 lakh against the replacement of Inverter and Tata Tipper respectively during the year 2012-13. Considering the fact that the plant is only 7 years old, the de-capitalized value furnished by the petitioner for these assets seems to be on the lower side. Similarly, the gross value of (-) ₹1.89 lakh against the de-capitalization of Chassis for truck TATA under assumed deletions in 2013-14 is not acceptable. Therefore, as per consistent methodology adopted by the Commission for arriving at the fair value of the de-capitalized asset, i.e. escalation rate of 5 % per annum from the COD has been considered in order to arrive at the gross value of old asset in comparison to the cost of new asset. In view of the above, the assumed deletion considered for the purpose of tariff for the period 2012-14 are as follows:

(₹in lakh)

	Additional capitalization claimed	De- capitalization claimed	De-capitalization considered
2012-13			
Inverter, capacity-10KVA	21.32	(-) 15.03	(-) 16.70
Tata Tipper	14.63	(-) 1.94	(-) 11.46
Total	35.95	(-) 16.97	(-) 28.17
2013-14			
Chassis for truck TATA	3.23	(-) 1.89	(-) 2.41
Total	3.23	(-) 1.89	(-) 2.41

Un-discharge and discharge of liabilities

27. The petitioner has submitted the details of un-discharged liabilities in the actual additional capital expenditure for 2012-14 and discharge of liabilities as under:

		(₹in lakh)
	2012-13	2013-14
Liability existed as on 31.3.2009 discharged during	0.10	0.00
the year		
Liability discharged during the year for additional	49.43	58.48
capital expenditure in 2009-14		
Un-discharged liability in additional capital	53.59	3814.34
expenditure for 2009-14		

28. The un-discharged liabilities and the discharge of liabilities as furnished by the petitioner as above have been considered for working out the admissible capital expenditure for the period 2012-14. Accordingly, 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
Capitalization against works projected and allowed for additional capital	130.56	0.00
expenditure		
Capitalization against works projected and allowed in previous year (2009-	205.96	371.39
10, 2010-11 & 2011-12)		
Not projected/not allowed but capitalized due to actual site requirements	35.95	3909.49
Total additions allowed (a)	372.46	4280.88
Deletions allowed (b)	(-) 59.52	(-) 40.37
Assumed deletions considered (c)	(-) 28.17	(-) 2.41
Total additional capital expenditure allowed before un-discharged/	284.77	4238.10
discharged liabilities (d)=(a)+(b)+(c)		
Add: Liability existed as on 31.3.2009 discharged during the year (e)	0.10	0.00
Add: Liability discharged during the year for additional capital expenditure	49.43	58.48
in 2009-14 (f)		
Less: Un-discharged liability for additional capital expenditure in 2009-14	53.59	3814.34
(g)		
Additional capital expenditure allowed (h)=(d)+(e)+(f)-(g)	280.71	482.24

Capital cost for 2012-14

29. The Commission in order dated 13.2.2014 in Petition No. 141/GT/2013 had considered the closing capital cost of ₹515196.48 lakh as on 31.3.2012. Accordingly, the capital cost considered for the purpose of the tariff is as under:

		(₹in lakh)
	2012-13	2013-14
Opening capital cost as on 31.3.2012	515196.48	515477.19
Additional capital expenditure allowed	280.71	482.24
Closing capital cost	515477.19	515959.43

Debt-Equity Ratio

- 30. In accordance with clause (2) of Regulation 12 of the Tariff Regulations 2009, in case of the generating stations declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 is considered.
- 31. The Commission in order dated 9.3.2010 in Petition No. 204/2009 while approving tariff for the generating station for the period ending 31.3.2009 had directed as under:
 - "24. The petitioner has stated that the additional capital expenditure has been financed through internal resources. As per the approved revised cost estimate (RCE-II) of the Govt. of India letter dated 22.8.2008, corresponding to an approved capital cost of ₹522849.00 lakh, the equity was frozen at ₹198668.67 lakh. The Commission in its order dated 30.11.2009 in Petition No. 72/2009 had allowed the equity of ₹198668.67 lakh on the date of commercial operation for the purpose of tariff. Accordingly, any additional capital expenditure incurred after the date of commercial operation, till the admitted capital cost becomes ₹522849.00 lakh, is to be considered as debt. After consideration of the admitted additional capital expenditure of ₹3188.55 lakh and ₹567.58 lakh during the year 2007-08 and 2008- 09 respectively, the admitted capital cost for works out to ₹511037.92 lakh and ₹511605.50 lakh for the year 2007-08 and 2008-09 respectively, which is below the admitted capital cost of ₹522849.00 lakh. Accordingly, the admitted additional capital expenditure has been considered as debt for the purpose of tariff."
- 32. In line with the above decision, the entire additional capital expenditure has been considered as debt, since the total estimated cost of completion is less than the approved Revised Cost Estimate of ₹522849.00 lakh.

Return on Equity

33. In terms of Regulation 15 (3) of the 2009 Tariff Regulations, the Return on Equity is computed as under:

		(₹ in lakh)
	2012-13	2013-14
Gross Notional Equity	198668.67	198668.67
Addition due to Additional Capitalization	0.00	0.00
Closing Equity	198668.67	198668.67
Average Equity	198668.67	198668.67

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Return on Equity (Base Rate)	15.750%*	16.500%
Tax rate for the year	20.008%	20.961%
Rate of Return on Equity	19.689%	20.876%
Return on Equity	39115.87	41474.07

Note-*Base rate for April- December 2012 @ 15.5% and for January-March 2013 @16.5%

Interest on Loan

34. The opening gross normative loan as on COD of each unit has been arrived at in accordance with Regulation 16 of the 2009 Tariff Regulations. The weighted average rate of interest has been worked out on the basis of the actual loan portfolio of respective years applicable to the project. The repayment for the period 2009-14 has been considered equal to the depreciation allowed for the respective year. The interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest. Accordingly, Interest on loan has been calculated as under:

/手:-- l-l-l-\

		(₹in lakh)
	2012-13	2013-14
Gross Normative Loan	316527.81	316808.52
Cumulative Repayment	119111.75	145858.17
Net Loan-Opening	197416.07	170950.35
Repayment during the year	26746.43	26767.84
Addition due to Additional Capitalization	280.71	482.24
Net Loan-Closing	170950.35	144664.76
Average Loan	184183.21	157807.55
Weighted Average Rate of Interest on loan	8.09%	8.09%
Interest on loan	14895.31	12758.78

Depreciation

35. The weighted average rate of depreciation of 5.190% and 5.190% for the year 2012-13 and 2013-14 respectively have been considered for the calculation of depreciation. Accordingly, the depreciation has been computed as under:

		(₹in lakh)
	2012-13	2013-14
Opening Gross Block	515196.48	515477.19
Additional capital expenditure	280.71	482.24
Closing gross block	515477.19	515959.43
Average gross block	515336.84	515718.31
Rate of Depreciation	5.190%	5.190%
Depreciable Value	463803.16	464146.48
Remaining Depreciable Value	344692.40	318289.31
Depreciation	26746.43	26767.84

O & M Expenses

36. The O & M expenses allowed in order dated 13.2.2014 in Petition No. 141/GT/2013 has been considered as under:

	(₹ in lakh)
2012-13	2013-14
17516.36	18518.30

Interest on Working Capital

37. The petitioner is entitled to claim interest on working capital as per Regulation 18 of the 2009 Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder.

(i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables as a component of working capital are equivalent to two months" of fixed cost. In the tariff being allowed, receivables have been worked out on the basis of "2 months" fixed cost.

(ii) Maintenance spares

Regulation 18 (1) (c) (ii) of the 2009 Tariff Regulations provides for maintenance spares @ 15% per annum of the O & M expenses as part of the working capital. The value of maintenance spares has accordingly been worked out.

(iii) O & M expenses

Regulation 18(1) (c) (iii) of the 2009 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the working capital. The petitioner has claimed O&M expenses for 1 month of the respective year. This has been considered in the working capital.

(iv) Rate of interest on working capital

In accordance with clause (3) of Regulation 18 of the tariff regulations, as amended, 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 is declared under commercial operation, whichever is later. Accordingly, SBI PLR of 12.25% as on 1.4.2009 has been considered in for working out Interest on Working Capital.

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

		(₹ in lakh)
	2012-13	2013-14
Maintenance Spares	2627.45	2777.74
O & M expenses	1459.70	1543.19
Receivables	16805.55	17022.25
Total	20892.70	21343.19
Interest on working capital @ 12.25%	2559.36	2614.54

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Annual Fixed Charges

39. The annual fixed charges allowed for generating station for the period 2012-14 are summarized as under:

		(₹in lakh)
	2012-13	2013-14
Return on Equity	39115.87	41474.07
Interest on Loan	14895.31	12758.78
Depreciation	26746.43	26767.84
Interest on Working Capital	2559.36	2614.54
O & M Expenses	17516.36	18518.30
Annual Fixed Charges	100833.33	102133.52

40. The difference between the annual fixed charges 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

41. 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
Return on Equity	41474.07	41474.07	41474.07	41480.65	41510.83
Interest on Loan	10731.78	8884.33	6857.93	4610.45	2249.60
Depreciation	26911.10	27046.68	27095.81	27134.06	27168.41
Interest on Working Capital	2580.53	2591.58	2599.88	2,606.56	2614.90
O & M Expenses	13746.97	14660.32	15634.36	16673.10	17780.86
Total	95444.45	94656.98	93662.05	92504.83	91324.60

42. 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 JVVNL, JDVVNL, AVVNL, UPPCL 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

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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

- 43. 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
- 44. The closing capital cost considered by the Commission as on 31.3.2014 in this order is ₹515959.43 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.

Projected Additional Capital Expenditure for the period 2014-19

- 45. 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. 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 obsolesce 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."

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The petitioner vide affidavit dated 16.7.2015 has revised the actual/projected additional capital expenditure for the period 2014-19. Accordingly, the year-wise breakup of the projected additional capital expenditure claimed by the petitioner is as under:

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Projected additional capital	464.62	1105.08	1381.50	280.00	678.50
expenditure on gross basis					
Proposed de-capitalization	40.64	267.34	26.88	0.00	5.00
Net projected additional capital expenditure claimed	423.98	837.74	1354.62	280.00	673.50

- 47. The respondent, UPPCL has submitted that out of the total claim of ₹399 lakh for additional capitalization, ₹191.20 lakh in 2014-15 may not be allowed as there is no information about capitalization of items like water treatment plant, skid loader and ambulance in 2013-14. It has also submitted that additional dry type transformer and accommodation for CISF may not be allowed as the transformer has been allowed in 2013-14 and the concession of new mess building for CISF has nothing to do with its activity. Similarly, out of the claim for capitalization of ₹1475 lakh in 2015-16 ₹695 lakh may not be allowed as some of the amounts claimed are beyond the amount approved during 2009-14 and some items may be charged to O&M. For the year 2016-17 the respondent has submitted that ₹584 lakh may not be allowed as some of the items may be charged to O&M expenses. The respondent has also submitted that an amount of ₹420 lakh for 2017-18 and ₹400 lakh for 2018-19 may not be allowed as some of the items have been claims in the previous years.
- The respondent, BRPL has submitted that some of the projected additional capitalization in 48. the year 2014-15 (five items) were approved by the Commission during 2009-14 is covered under Regulation 14(3)(vi) of the 2014 Tariff Regulations and the petitioner should justify the claim. As regards expenditure towards dry type transformer, the claim is required to be made under Regulation 14(3)(vii) for deterioration of assets, obsolescence of technology etc. and the petitioner should support its claim with technical justification duly supported with documentary evidence like test results carried out by independence agency. Similar submission has been made by the

respondent in respect of projected additional capital expenditure claimed by the petitioner for the year 2016-19. The petitioner has filed its rejoinder clarifying the objections made by the above respondents and has prayed that the tariff of the generating station may be determined as claimed in the petition in terms of the provisions of the 2014 Tariff Regulations.

49. We have examined the matter. It is noticed that the petitioner has also claimed capitalization of the expenditure under Regulation 14(3)(viii) of the 2014 Tariff Regulations which also provides for capitalization of expenditure incurred due to additional work which has become necessary for successful and efficient operation of plant. The respondent, BRPL has submitted 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. We have examined the matter. 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. However, there may be some assets which are serviceable even after the expiry of their useful life and should be put to use instead of seeking their replacement in a routine manner. In our view, the petitioner should support its claim either on the basis of the certificate by the OEM or its technical committee to the effect that the subject assets cannot be kept in service on account of its obsolescence or it being beyond economic repair. Though we are allowing capitalization of these assets under Regulation 14(3)(viii) of the 2014 Tariff Regulations, we direct that the petitioner shall place on record the necessary certificate from the OEM or its technical committee at the time of truing-up of tariff . Similar approach shall be adopted in other cases where additional capitalization has been allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations. Accordingly, based on the submissions of the parties and the documents available on record, the claims of the petitioner for the period 2014-19

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are considered and allowed on prudence check, after reduction of the gross value of old assets, wherever necessary, as detailed in the subsequent paragraphs.

<u>2014-15</u>

(₹in lakh)

No. expenditure petitioner admissibility allowater 1 Construction of Treatment plant for drinking water and distribution system in Semna and Shalimar Semna and Shalimar Semna and Shalimar The submissions have been examined. It is observed that the delay in execution is due to the time taken for testing of water samples and firming up the technical specification. The petitioner has further submitted that against this, the total amount of ₹152.71 lakh have been capitalized in 2014-15. The respondent, UPPCL has submitted The submissions have been examined. It is observed that the asset/ work was allowed by the Commission for 2009-14 vide asset/ work was allowed by the Commission for 2009-14 vide asset/ work in the expenditure is for the benefit of the expenditure is for the benefit of the employees working in remote areas of the project which in turn will facilitate the successful and efficient operation of the generating	CI	A = = = t = t = = = = = = = = = = = = =	Duningtoil	Culominaiana - f	Danasassas	(? In lakn)
Treatment plant for drinking water and distribution system in Semna and Shalimar 152.71 152.71 152.71 The petitioner has submitted that an amount of ₹250.00 lakh was approved by Commission for additional capitalization during 2009-14. It has also submitted that the delay in execution is due to the time taken for testing of water samples and firming up the technical specification. The petitioner has further submitted that against this, the total amount of ₹152.71 lakh have been capitalized in 2014-15. The respondent, UPPCL has submitted that an amount of ₹250.00 have been examined. It is observed that the examined. It is observed that the asset/ work was allowed by the Commission for 2009-14 vide order dated 30.5.2011 in Petition No. 60/2010. Since the expenditure is for the benefit of the employees working in remote areas of the project which in turn will facilitate the successful and efficient operation of the generating	1	Assets/works				Amount
Treatment plant for drinking water and distribution system in Semna and Shalimar Shalimar Sema and Shalimar Sema allowed by the Commission for 2009-14 vide order dated 30.5.2011 in Petition No. 60/2010. Since the expenditure is for the benefit of the expenditure is for the sex sex allowed by the Commission for 2009-14 vide order dated 30.5.2011 in Petition No. 60/2010. Since the expenditure is for the benefit of the expenditure is for the expenditure is for the			•	•	•	
be taken in true –up. The respondent, BRPL has submitted that the said work can be covered under Regulation 14(3)(vii) and the petitioner is required to justify the	No.	Construction of Treatment plant for drinking water and distribution system in Semna and	expenditure	The petitioner has submitted that an amount of ₹250.00 lakh was approved by Commission for additional capitalization during 2009-14. It has also submitted that the delay in execution is due to the time taken for testing of water samples and firming up the technical specification. The petitioner has further submitted that against this, the total amount of ₹152.71 lakh have been capitalized in 2014-15. The respondent, UPPCL has submitted that ₹54.31 lakh is to be taken in true –up. The respondent, BRPL has submitted that the said work can be covered under Regulation 14(3)(vi) and the petitioner is	admissibility The submissions have been examined. It is observed that the asset/ work was allowed by the Commission for 2009-14 vide order dated 30.5.2011 in Petition No. 60/2010. Since the expenditure is for the benefit of the employees working in remote areas of the project which in turn will facilitate the successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff	allowed

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2	Construction of permanent boundary wall of Semna & Shalimar colony.	27.04	The petitioner has submitted that an amount of ₹150.00 lakh was approved by Commission for additional capitalization during 2009-14. It has also submitted that till 2013-14 the expenditure incurred on this account is ₹155.07 lakh and the same has been capitalized. It has however submitted that complete area could not be covered and there are still some places where security wall is required for which ₹27.04 lakh has been proposed.	for the purpose of security of establishments of power station, the IB and CISF had recommended security fencing at various critical locations. It is also noticed that the expenditure towards this asset/ work had been allowed by the Commission vide order dated 30.5.2011 in Petition no. 60/2010 for the period 2009-14. Since the expenditure is considered necessary on account of security and safety of the generating station as per recommendations of the IB and CISF, the same is allowed under	27.04
				allowed under Regulation 14(3)(iii) of the 2014 Tariff	
3	Treatment of sinking zone at Dam and regarding of approach road leading to Dam	93.86	The petitioner has submitted that, an amount of ₹1000.00 lakh was approved by Commission for 2009-14 for treatment of sinking zone. Detailed studies do not reveal any clear cut methodologies for treatment & it is advised to take corrective measure from time to time	shall be met from the O&M expenses allowed to the generating station. However, in case the petitioner is not	0.00

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			depending upon subsidence. Till March 2014 an amount of ₹475.00 lakh had been capitalized. The area remains prone to sinking and further treatment during next five years would be required.	expenses from the admissible O&M expenses, it is at liberty to approach the Commission with proper justification at the time of truing-up of tariff.	
:	Skid steer loader (45- 50HP) with snow blower attachment	19.53	The petitioner has submitted that an amount of ₹32.00 lakh was kept in additional capitalization during 2009-14. The procurement process was initiated earlier, but could not mature since tender had to be cancelled for administrative reason. Accordingly, the petitioner has submitted that the purchase has now been made.	Since the asset/ work was allowed by the Commission during 2009-14 vide order dated 30.5.2011 in Petition No. 60/ 2010 and the asset/ work is considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations	19.53

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	F: 4	44.00	The medicine i	Cinna the co	44.00
5	Fire tender -	11.68	The petitioner has	Since the asset/	11.68
	4KL		submitted that, an	work was allowed	
			amount of ₹32.50 lakh	by the	
			was kept in additional	Commission	
			capitalization during	during 2009-14	
			2009-14. Chassis of 4	vide order dated	
			KL capacity fire tender	30.5.2011 in	
			has been purchased	Petition No. 60/	
			and ₹22.00 lakh	2010 and the	
			capitalized in	asset/ work is	
			additional	considered	
			capitalization during	necessary for	
			2009-14. The balance	successful and	
			amount of ₹11.68 lakh	efficient operation	
			was required for	of the generating	
			carrying out	station, the	
			fabrication of body of	expenditure is	
			this fire tender for	allowed under	
			which has now been	Regulation	
			completed. It has	14(3)(viii) of the	
			submitted that since	2014 Tariff	
			the work is to be	Regulations.	
			completed in two		
			stages i.e. one for		
			purchase of chassis &		
			subsequently		
			fabrication of tanker,		
			the work was delayed.		
6	Ambulance (fully	5.63	The petitioner has	Since the	5.63
	equipped)		submitted that an	asset/work was	
			amount of ₹20.50 lakh	allowed by the	
			was kept in additional		
			capitalization during	during 2009-14	
			2009-14. However,	vide order dated	
			the supplier failed to	30.5.2011 in	
			supply the	Petition No.	
			ambulance. New	60/2010 and the	
			ambulance has been	expenditure is for	
			purchased and	the benefit of the	
			capitalized for ₹7.23		
			lakh in 2013-14.	working in remote	
			Amount of ₹5.63 lakh	areas of the	
			has been incurred for	project which in	
			installation of critical	turn will facilitate	
			health care in the	the successful	
			ambulance and	and efficient	
			claimed in 2014-15. It	operation of the	
			has submitted that the	generating	
			delay is due to non-	station, the	
			supply of the	expenditure is	
			ambulance by the	allowed under	
	İ	İ	supplier due to which	Regulation	

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			orders were cancelled and had to be re-	14(3)(viii) of the 2014 Tariff	
			tendered.	Regulations.	
7	Purchase of drainage and dewatering pumps.	37.45	The petitioner has submitted that the originally installed KSB make pumps were imported from Germany and spares of these pumps are not available in India. These pumps have been repaired several times and not reliable during monsoon period. Hence additional pumps are required to strengthen the dewatering capacity to avoid any flooding. The pumps shall be purchased against decapitalization of old pumps for ₹23.51 lakh.	Since the asset/work is considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	13.94 (37.45-23.51)
8	Purchase of HP compressors	22.56	The petitioner has submitted that the HP compressors are most essential equipment of power house for operation of MIV and Guide vanes. Existing HP compressors are imported and installed since commissioning of power station and frequent breakdowns have been experienced. Due to old model as well as being imported item, the spares of these compressors are not available in time, hence HP compressors are required to be replaced with indigenous make. The de-capitalized value of existing asset for ₹	Since the asset/work is considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	5.43 (22.56-17.13)

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			17.13 lakh is considered.		
9	Purchase of Dry type Distribution Transformer, HV/LV panel and cables.	53.34	The petitioner has submitted that the existing drainage and dewatering system is designed as per old guidelines and of optimum design without considering the flooding /disaster management aspects. Accordingly, it has submitted that the additional dewatering system has been provided and capitalized in 2013-14. It has further submitted that for reliable power supply to this system, additional Transformer and HT/LT panel and cables are required which would be installed at service bay level to reduce the chances of its submergence in case of flooding. The petitioner has stated that this is essential from disaster management point of view.	asset/work is considered necessary for successful and	53.34
10	Supply and Installation of Monorail hoist for Pumps.	11.60	The petitioner has submitted that, the drainage and dewatering sump does not have an overhead opening due to which installation or removal is not possible with the help of EOT crane. Removal and installation of these pumps by mechanical means is a time consuming process which can expose the	Since the asset/work is considered necessary successful and efficient operation of the plant, the same has been allowed under Regulation 14(3)(viii) of Tariff Regulations, 2014.	11.60

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			La accesa la accesa de la Colonia	T	
			power house to risk in high flood season. For		
			easy removal and		
			assembly of drainage		
			& dewatering pumps, monorail and hoist		
			have to be installed.		
11	Installation of	15.89	The petitioner has	Since the	15.89
	CCTV system		submitted that	asset/work is	
			installation of CCTV	considered	
			system is proposed in	_	
			and around colonies	safety of plant	
			wherein sensitive	which will	
			installations like	facilitate successful and	
			filtration plant, storage tanks 132 KV		
			substation and all	of the plant, the	
			security outposts and	same has been	
			entrance gates is	allowed under	
			required for proper		
			record of entries in		
			view of the power	Regulations,	
			station being in	2014.	
12	Construction of	13.33	militancy prone areas. The petitioner has	Since the	13.33
12	accommodation	10.00	submitted that, these		10.00
	& security		assets are required in	account of need	
	post/pucca		view of current	for higher security	
	morcha for CISF		security aspect in	,	
	at Chenab		region. By considering	generating station	
	Nagar, Shalimar		reports of security	as per	
	& Hasti		agencies pacca morcha/ post is	recommendations of CISF, the	
			required. These points		
			were also raised by		
			security agency of		
			power station i.e.	2014 Tariff	
			CISF, so that different	Regulations.	
			establishments can be		
			secured. In this head		
			a mess building is also proposed as		
			present temporary		
			structure of mess is in		
			bad condition. The		
			cost of temporarily		
			sheds shall be de-		
_			capitalized.		165.55
	I Claimed (after de				423.98
Tota	l allowed (after de	-capitalization)			330.12

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<u>2015-16</u>

(₹in lakh)

SI.	Assets/works	Projected	Submissions of	Reasons for	Amount
No.		expenditure	petitioner	admissibility	allowed
1	Construction of permanent boundary wall of Semna & Shalimar colony	90.00	The petitioner has submitted that an amount of ₹150.00 lakh was approved by Commission for additional capitalization during 2009-14. It has also submitted that till 2013-14 the expenditure incurred on this account is ₹155.07 lakh and the same has been capitalized. It has however submitted that complete area could not be covered and there are still some places where security wall is required for which ₹27.04 lakh has been proposed.	submissions of the petitioner for capitalization of this work in 2014-15 above, the expenditure claimed during this year is	90.00

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2	Hill slope stabilization at both bank of Dam.	298.00	The petitioner has submitted that, an amount of ₹300.00 lakh was approved by Commission for 2009-14 for which tender was floated during 2012. But due to inadequate response from contractors work could not materialize. However after retendering the work is awarded. The completion cost of the work would be of the order of ₹400.0 lakhs. The delay is only due to very poor response from the bidder in view of the specialized job & remote location of the project. The expenditure done in 2014-15 is ₹28.33 lakh which is yet to be capitalized.	incurred is recurring in nature the claim of petitioner is not allowed . However, the expenditure can be met from the O&M expenses allowed to the generating station. However, in case the petitioner is not able to meet the expenses from the admissible O&M expenses, it is at liberty to approach the Commission with proper justification at the time of truing-up of tariff.	0.00
3	Treatment of sinking zone at Dam and regarding of approach road leading to Dam	80.00	The petitioner has submitted that, an amount of ₹1000.00 lakh was approved by Commission for 2009-14 for treatment of sinking zone. Detailed studies do not reveal any clear cut methodologies for treatment & it is advised to take corrective measure from time to time depending upon	Since the expenditure incurred is recurring in nature the claim of petitioner is not allowed . However,the expenditure can be met from the O&M expenses allowed to the generating station. However, in case the petitioner is not able to meet the expenses from the admissible O&M expenses, it is at liberty to approach the Commission with proper justification at the time of truing-up of	0.00

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			subsidence. Till March 2014 an amount of ₹475.00 lakh had been capitalized. The area remains prone to sinking and further treatment during next five years would be required.	tariff.	
4	Purchase of numeric generator transformer protection relays	10.08	The petitioner has submitted that, existing relays are of static type and moreover an obsolete model. Being vital it is proposed to replace the same with new latest numeric generator transformer protection relay having facility of disturbance recording, user friendly protection setting etc. These relays will be purchased and old static relays for ₹6.70 lakh will be de-capitalized.	Since the asset/work is considered necessary for successful and efficient operation of the generating station, the same is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	3.38 (10.08- 6.70)
5	Purchase of Surge arrestor for 400 KV GIS	450.00	The petitioner has submitted that the existing T155-1 surge arrestor associated with 400 kV Dulhasti-Kishenpur line bay-2 R-phase got damaged on 12.7.2012 during tripping of above said line. M/s ALSTOM (the OEM of GIS) has stated that the manufacturing of this product (T155-1	Since the asset/work is considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	250.00 (450.00-200.00)

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surge arrestor) is no more possible & they don't have any stock of these components. The zinc oxide blocks and the insulating tubes used in the T155-1 Surge Arrestor are different from the nowadays products and residual voltage of the new products is lower than the product former which leads to an unbalanced system which is not acceptable due to which surge arrestors on all the three phases need to be replaced. Hence as per recommendation of **ALSTOM** M/s technical department, the petitioner had to replace all T155-1 surge arrestors installed on all the 3 phases (one faulty and other two in Y & phase respectively) with the new generation T155-2 surge arrestors and the Surge arrestors provided earlier shall de-capitalized. Estimated original value of old surge arrestor is ₹200 lakh based on engineering estimate of acquisition cost.

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6	Purchase of bus bar protection relay	35.00	The petitioner has submitted that the existing relay is of static type and more over an obsolete model. The relay was supplied as a part of main GPM & directly imported. The OEM of the relay also lacks expertise as on date. The bus bar protection scheme is very vital for protection of GIS based bus bar schema in circuit. Hence it is proposed to install new latest numeric bus bar protection, having facility of disturbance recording and user friendly protection setting. The old protection relays for ₹20.00 lakh will be de-capitalized.	considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014	15.00 (35.00-20.00)
7	Purchase of drainage and dewatering pumps.	48.00	The petitioner has submitted that the originally installed KSB make pumps were imported from Germany and spares of these pumps are not available in India. These pumps have been repaired several times and not reliable during monsoon period. Hence additional pumps are required	submissions of the petitioner for capitalization of this work in 2014-15 above, the expenditure claimed during this year is	24.49 (48.00-23.51)

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			to strengthen the dewatering capacity to avoid any flooding. The pumps shall be purchased against de-capitalization of old pumps for ₹23.51 lakh.		
8	Purchase of HP compressors	23.00	The petitioner has submitted that the HP compressors are most essential equipment of power house for operation of MIV and Guide vanes. Existing HP compressors are imported and installed since commissioning of power station and frequent breakdowns have been experienced. Due to old model as well as being imported item, the spares of these compressors are not available in time, hence HP compressors are required to be replaced with indigenous make. The de-capitalized value of existing asset for ₹ 17.13 lakh is considered.	capitalization of this work in 2014-15 above, the expenditure claimed during this year is allowed. The decapitalized value of the old asset is ₹17.13 lakh	5.87 (23.00-17.13)
9	Purchase of Mobile truck mounted hydraulic scissor lift / work platform	55.00	The petitioner has submitted that, lot of street lights are in circuit at power house, colony as well as dam access roads. For maintaining them, lot of man power is required for handling the telescopic ladder. Also the	Since the asset/work is considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	55.00

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			activity is time consuming. In the coming years as the man power will be reduced, the maintenance of		
			these street lights will be tedious. Hence it is proposed to purchase one mobile truck mounted hydraulic scissor lift/work platform which drastically reduce		
			the manpower requirement as well as the lead time involved. Also it can be utilized in other activities to be undertaken at elevated levels safely.		
10	Construction of accommodation & security post/ pucca morcha for CISF at Chenab Nagar, Shalimar & Hasti	16.00	The petitioner has submitted that, these assets are required in view of current security aspect in region. By considering reports of security agencies pacca morcha/ post is required. These points were also raised by security agency of power station i.e. CISF, so that different establishments can be secured. In this head a mess building is also proposed as present temporary structure of mess is in bad condition. The cost of temporarily sheds shall be decapitalized.	submissions of the petitioner for capitalization of this work	16.00
	I Claimed (after de I allowed (after de				837.74 459.74
IJIA	i anomed faiter de	Japitanzation)			700.17

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<u>2016-17</u>

(₹ in lakh)

SI. No.	Assets/works	Projected expenditure	Submissions of petitioner	Reasons for admissibility	Amount allowed
	Whool dozor 300		•		
1	Wheel dozer 300 HP class	350.00	The petitioner has submitted that an amount of ₹471.00 lakh was kept in additional capitalization during 2009-14. The purchase could not materialize and it is now proposed. This is a new purchase against replacement.	work was already allowed by the Commission during 2009-14 in order dated 30.5.2011 in Petition No. 60/2010 and the asset/work is considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2009 Tariff	348.94 (350.00-1.06)
2	TATA bus 42 seater-2Nos	38.00	The petitioner has submitted that an amount of ₹32.00 lakh was kept in additional capitalization during 2009-14. The purchase could not materialize and it is now proposed. An amount of ₹38.00 lakh is proposed to be kept. This purchase is against disposal of existing 2 buses for ₹14.60 lakh which shall be de-capitalized.	asset/work is considered necessary for successful and	23.40 (38.00-14.60)

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3	Construction of	180.00	The petitioner	Since the	180.00
	sewerage	100.00	has submitted	asset/work was	100.00
	treatment plant at		that, an amount		
	Semna &		of ₹150.00 lakh	,	
	Shalimar colony		was kept in the		
	,		add cap of 2009-		
			14 for this	30.5.2011 in	
			purpose.	Petition No.	
			However during	60/2010 and the	
			preparation of	expenditure is for	
			detailed estimate	the benefit of the	
			it was observed	employees	
			that since the	working in the	
			present system is	generating station,	
			septic tanks/soak		
			pit based and an	capitalization of	
			extensive	this asset/work	
			network of pipes		
			is required for collection of		
			sewage at		
			various STP	station, the	
			points and the	expenditure is	
			amount is not		
			sufficient. As per		
			guidelines by		
			State pollution	2014 Tariff	
			board, the	Regulations.	
			sewage		
			generated from		
			colonies and		
			other		
			establishments		
			are necessarily to		
			be treated to specified extent		
			before		
			discharging to		
			surfaces water		
			sources. So		
			keeping in view		
			of this as per		
			available		
			elevation of		
			different buildings		
			STP's shall be		
			required at		
			various deepest		
			points. At		
			Dulhasti five STP's could be		
			set up at places-		

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			for DSB and Semna colony, Shalimar and Hasti, Admin building and offices, school and Project hospital. For collecting and transferring sewage at respective location a sewage network consist of RCC pipes, manholes and other appurtenances are required.		
4	Construction of Treatment plant for drinking water and distribution system in Semna and Shalimar	145.00	The petitioner has submitted that an amount of ₹250.00 lakh was approved by Commission for additional capitalization during 2009-14. It has also submitted that the delay in execution is due to the time taken for testing of water samples and firming up the technical specification. The petitioner has further submitted that against this, the total amount of ₹152.71 lakh have been capitalized in 2014-15.	The submissions have been examined. It is observed that the asset/ work was allowed by the Commission for 2009-14 vide order dated 30.5.2011 in Petition No. 60/2010. Since the expenditure is for the benefit of the employees working in remote areas of the project which in turn will facilitate the successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	145.00
5	Hill slope stabilization at both bank of	100.00	The petitioner has submitted that an amount of	Since the projected expenditure is	0.00

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	Dam.		₹150.00 lakh was approved by Commission for additional capitalization during 2009-14. It has also submitted that till 2013-14 the expenditure incurred on this account is ₹155.07 lakh and the same has been capitalized. It has however submitted that complete area could not be covered and there are still some places where security wall is required for which ₹ 27.04	recurring in nature the claim of petitioner is not allowed. The expenditure shall be met from the O&M expenses allowed to the generating station. However, in case the petitioner is not able to meet the expenses from the admissible O&M expenses, it is at liberty to approach the Commission with proper justification at the time of truing-up of tariff.	
6	Treatment of sinking zone at Dam and regarding of approach road leading to Dam	120.00	lakh has been proposed. The petitioner has submitted that, an amount of ₹1000.00 lakh was approved by Commission for 2009-14 for treatment of sinking zone. Detailed studies do not reveal any clear cut methodologies for treatment & it is advised to take corrective measure from time to time depending upon subsidence. Till March 2014 an amount of ₹475.00 lakh had been capitalized. The area remains		0.00

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7	Pickup van-2 nos	20.00	prone to sinking and further treatment during next five years would be required. The petitioner has submitted that this is a new purchase against de-capitalization of one 10.0 MT truck whose acquisition cost of ₹6.22 lakh. It is proposed to keep ₹20.00 lakh for purchase of 2 nos pick up van as these vans have been approved by competent authority in the sanctioned strength of power	Since the asset/ work is considered necessary for successful and efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	13.78 (20.00-6.22)
8	Car	8.50	The petitioner has submitted that two nos. of car is proposed to be capitalized one each in 2016-17 and 2018-19 against the replacement of bullet proof car having gross block of ₹10 lakh. The decapitalized value of ₹10 lakh has been apportioned during 2016-17 (₹5 lakh) and 2018-19 (₹5 lakh).	work is considered necessary for successful and efficient operation of the generating station, the	3.50 (8.50-5.00)
9	Purchase of TRT gate in single piece with dedicated hoist	400.00	The petitioner has submitted that, the existing TRT stop logs	Since the asset/ work is considered necessary for successful and	400.00

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			are in 4 segments and it would take minimum 4 hrs to place the gate. This arrangement cannot isolate the power house from downstream in case of an emergency flooding situation. Further, draft tube isolation is also through stop logs. To protect the power house from risk, it is proposed to convert these four stop logs in to a single gate with higher size gantry so that it can be lowered in minimum time period in emergency. In case conversion is not possible, the new gate shall be	efficient operation of the generating station, the expenditure is allowed under Regulation 14(3)(viii) of the 2014 Tariff Regulations.	
			shall be purchased and stop logs shall be de-capitalized.		
10	Installation of CCTV system	20.00	The petitioner has submitted that installation of CCTV system is proposed in and around colonies wherein sensitive installations like filtration plant, storage tanks 132 KV substation and all security outposts and entrance gates is required for proper record of entries in view	Based on the submissions of the petitioner for capitalization of this work in 2014-15 above, the expenditure claimed during this year is allowed .	20.00

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		of the power station being in militancy prone areas.	
Total Claimed (after de-capitalization)			1354.62
Total allowed (after de-capitalization)			1134.62

<u>2017-18</u>

(₹in lakh)

SI. No.	Assets/works	Projected expenditure	Submissions of petitioner	Reasons for admissibility	Amount allowed
1	Treatment of sinking zone at Dam and regarding of approach road leading to Dam	100.00	The petitioner has submitted that an amount of ₹1000.00 lakh was approved by Commission for 2009-14 for treatment of sinking zone. Detailed studies do not reveal any clear cut methodologies for treatment & it is advised to take corrective measure from time to time depending upon subsidence. Till March 2014 an amount of ₹475.00 lakh had been capitalized. The area remains prone to sinking and further treatment during next five years would be required.	is of a recurring nature, the same is not allowed. The expenditure shall be met from the O&M expenses allowed to the generating station. However, in case the petitioner is not able to meet the expenses from the admissible O&M expenses, it is at liberty to approach the Commission with proper justification at the time of truing-up of tariff.	0.00
2	Purchase of TRT gate in single piece with dedicated hoist	80.00	The petitioner has submitted that, the existing TRT stop logs are in 4 segments and it would take		80.00

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			minimum 4 hrs to place the gate. This arrangement cannot isolate the power house from downstream in case of an emergency flooding situation. Further, draft tube isolation is also through stop logs. To protect the power house from risk, it is proposed to convert these four stop logs in to a single gate with higher size gantry so that it can be lowered in minimum time period in emergency. In case conversion is not possible, the new gate		
3	Payment of land compensation	100.00	purchased and stop logs shall be de-capitalized. The petitioner has submitted that: i) Land acquisition case for acquisition of land measuring 213 Kanal 13 marlas falling in Village Kawar Tanji for reservoir is under process wherein tentative compensation to the tune of ₹258.00 lakh has been assessed. Accordingly provision for payment of actual	Considering the fact that the expenditure is on account of payment of compensation, as stated, the same is allowed.	100.00

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	compensation	
	has been made.	
	ii) Compensation	
	of land	
	measuring 20	
	kanal 01 marlas	
	transferred from	
	Horticulture	
	Department is yet	
	to be paid.	
	Accordingly	
	provision of	
	tentative	
	compensation of	
	₹60.00 lakh has	
	been made. iii)	
	An amount of	
	₹24.60 lakh is	
	unpaid on	
	account of cost of	
	Government/	
	Shamlat land	
	(Un-claimed/	
	disputed cases)	
	Accordingly,	
	provision for	
	payment of	
	compensation of	
	unpaid amount	
	has been made.	
	In addition to	
	above provision	
	for payment of	
	compensation in	
	unforeseen cases	
	has also been	
Total Claims of (after the control of)	made.	200.00
Total Claimed (after de-capitalization)		280.00
Total allowed (after de-capitalization)		180.00

<u>2018-19</u>

(₹in lakh)

SI. No.	Assets/works	Projected expenditure	Submissions of petitioner	Reasons for admissibility	Amount allowed
1	Construction of sewerage treatment plant	320.00	The petitioner has submitted that, an	Based on the	320.00
	at Semna & Shalimar colony		amount of ₹150.00 lakh was kept in the add cap of	expenditure claimed	

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1			1
	2009-14 for	allowed.	
	this purpose.		
	However		
	during		
	preparation of		
	detailed		
	estimate it was		
	observed that		
	since the		
	present		
	system is		
	septic		
	tanks/soak pit		
	based and an		
	extensive		
	network of		
	• •		
	required for		
	collection of		
	sewage at		
	various STP		
	points and the		
	amount is not		
	sufficient. As		
	per guidelines		
	by State		
	pollution		
	board, the		
	sewage		
	generated		
	from colonies		
	and other		
	establishments		
	are necessarily		
	to be treated to		
	specified		
	extent before		
	discharging to		
	surfaces water		
	sources. So		
	keeping in		
	view of this as		
	per available		
	elevation of		
	different		
	buildings		
	STP's shall be		
	required at		
	various		
	deepest		
	points. At		
	Dulhasti five		

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2	Construction of	100.00	STP's could be set up at places-for DSB and Semna colony, Shalimar and Hasti, Admin building and offices, school and Project hospital. For collecting and transferring sewage at respective location a sewage network consist of RCC pipes, manholes and other appurtenances are required. The petitioner		100.00
	Treatment plant for drinking water and distribution system in Semna and Shalimar		has submitted that an amount of ₹250.00 lakh was approved by Commission for additional capitalization during 2009-14. It has also submitted that the delay in execution is due to the time taken for testing of water samples and firming up the technical specification. The petitioner has further submitted that against this, the total amount of ₹152.71 lakh	petitioner for capitalization of this work in 2014-15 above, the	

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			have been		
			capitalized in 2014-15.		
3	Payment of land compensation	250.00	capitalized in 2014-15. The petitioner has submitted that: i) Land acquisition case for acquisition of land measuring 213 Kanal 13 marlas falling in Village Kawar Tanji for reservoir is under process wherein tentative compensation to the tune of ₹258.00 lakh has been assessed. Accordingly provision for payment of actual compensation has been made. ii) Compensation of land measuring 20 kanal 01 marlas transferred from Horticulture Department is yet to be paid. Accordingly provision of tentative compensation of ₹60.00 lakh has been made. iii) An amount of	submissions of the petitioner for capitalization of this work in 2017-18 above, the expenditure claimed	250.00
			₹24.60 lakh is unpaid on		

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Additional capital expenditure allowed for 2014-19

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

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Additional Capital Expenditure	370.76	727.08	1161.50	180.00	678.50
allowed					
De-capitalization considered	40.64	267.34	26.88	0.00	5.00
Net Additional Capital	330.12	459.74	1134.62	180.00	673.50
Expenditure allowed for the					
purpose of tariff					

51. The discharge of liabilities of liabilities considered the petitioner is as under:

				(₹in lakh)
2014-15	2015-16	2016-17	2017-18	2018-19
3836.04	0.00	0.00	0.00	0.00

52. Considering the above discharges, the net projected additional capitalize expenditure allowed is as under:

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Net additional capital expenditure	330.12	459.74	1134.62	180.00	673.50
allowed					
Discharges of liabilities	3836.04	0.00	0.00	0.00	0.00
Additional capital expenditure	4166.16	459.74	1134.62	180.00	673.50
allowed					

Capital Cost for 2014-19

53. As stated, the closing capital cost of ₹515959.43 lakh as on 31.3.2014 has been considered in this order. 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	515959.43	520125.59	520585.33	521719.95	521899.95
Additional Cap expenditure allowed	vital 4166.16	459.74	1134.62	180.00	673.50
Capital Cost as on 3 March of the year	520125.59	520585.33	521719.95	521899.95	522573.45

Debt-Equity Ratio

- 54. 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."
- 55. In its order dated 9.3.2010 in Petition No. 204/2009 pertaining to revision of tariff based on additional capital expenditure for the period 2007-09, had observed as under:
 - "24. The petitioner has stated that the additional capital expenditure has been financed through internal resources. As per the approved revised cost estimate (RCE-II) of the Govt. of India letter dated 22.8.2008, corresponding to an approved capital cost of ₹522849.00 lakh, the equity was frozen at ₹198668.67 lakh. The Commission in its order dated 30.11.2009 in Petition No. 72/2009 had allowed the equity of ₹198668.67 lakh on the date of commercial operation for the purpose of tariff. Accordingly, any additional capital expenditure incurred after the date of commercial operation, till the admitted capital cost becomes ₹522849.00 lakh, is to be considered as debt. After consideration of the admitted additional capital expenditure of ₹3188.55 lakh and ₹567.58 lakh during the year 2007-08 and 2008-09 respectively, the admitted capital cost for works out to ₹511037.92 lakh and ₹511605.50 lakh for the year 2007-08 and 2008-09 respectively, which is below the admitted capital cost of ₹522849.00 lakh. Accordingly, the admitted additional capital expenditure has been considered as debt for the purpose of tariff."
- 56. In line with the above decision, the entire additional capital expenditure has been considered as debt, since the total estimated cost of completion is less than the approved Revised Cost Estimate of ₹522849.00 lakh.

Return on Equity

- 57. 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,

, Å,

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% has been 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.
- 58. Regulation 25 of the 2014 Tariff Regulations provides as under:

"Tax on Return on Equity

- (1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income stream (i.e., income of non generation or non transmission business, as the case may be) shall not be considered for the calculation of "effective tax rate".
- (2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

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

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

(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-

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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."

59. The base rate has been grossed up with the MAT rate for the year 2013-14. Accordingly, in terms of the above regulations, Return on Equity has been computed as under:

					(₹in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Notional Equity	198668.67	198668.67	198668.67	198668.67	198668.67
Addition due to	0.00	0.00	0.00	0.00	0.00
additional capitalization					
Closing Equity	198668.67	198668.67	198668.67	198668.67	198668.67
Average Equity	198668.67	198668.67	198668.67	198668.67	198668.67
Return on Equity (Base	16.500%	16.500%	16.500%	16.500%	16.500%
Rate)					
Tax rate for the year	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity	20.876%	20.876%	20.876%	20.876%	20.876%
Return on Equity	41474.07	41474.07	41474.07	41474.07	41474.07

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

Interest on Loan

- 61. 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 up to the date of decapitalization 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,

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

- (6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.
- (7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1
- (8) The changes to the terms and conditions of the loans shall be reflected from the date of such refinancing.
- (9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

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

62. The opening gross normative loan as on the COD of each unit has been arrived at in accordance with Regulation 26 of the 2014 Tariff Regulations. The weighted average rate of interest has been worked out on the basis of the actual loan portfolio of respective year applicable to the project. The repayment for the period 2014-19 has been considered equal to the depreciation allowed for that year. The interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest. The calculation of weighted average rate of interest is allowed as Annexure-I to this order. As such, interest on loan has been calculated as under:

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	317290.76	321456.92	321916.66	323051.28	323231.28
Cumulative Repayment up	172626.01	199514.48	226523.00	253572.90	280656.92
to Previous Year					
Net Loan-Opening	144664.76	121942.44	95393.66	69478.38	42574.36
Repayment during the year	26888.47	27008.52	27049.90	27084.02	27106.17
Addition due to Additional	4166.16	459.74	1134.62	180.00	673.50
Capitalization					
Net Loan-Closing	121942.44	95393.66	69478.38	42574.36	16141.70
Average Loan	133303.60	108668.05	82436.02	56026.37	29358.03
Weighted Average Rate of	8.027%	8.126%	8.242%	8.117%	7.458%
Interest on Loan					
Interest on loan	10700.04	8830.36	6794.34	4547.81	2189.49

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Depreciation

63. 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 on1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2014 from the gross depreciable value of the assets.
- (7) The generating company or the transmission license, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

A

- (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."
- 64. The weighted average rate of depreciation of 5.190% calculated in terms of the above regulation has been considered for the period 2014-19. Accordingly, depreciation has been computed as follows:

					(₹in lakh
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Block as on 31.3.2014	515959.43	520125.59	520585.33	521719.95	521899.95
Additional capital expenditure	4166.16	459.74	1134.62	180.00	673.50
during 2014-19					
Closing gross block	520125.59	520585.33	521719.95	521899.95	522573.45
Average gross block	518042.51	520355.46	521152.64	521809.95	522236.70
Rate of Depreciation	5.190%	5.190%	5.190%	5.190%	5.190%
Depreciable Value	466238.26	468319.92	469037.38	469628.96	470013.03
Remaining Depreciable	293613.25	268822.02	242647.22	216201.95	189502.01
Value					
Depreciation	26888.47	27008.52	27049.90	27084.02	27106.17

O&M Expenses

65. 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
13746.97	14660.32	15634.36	16673.10	17780.86

Interest on working capital

- 66. 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."

67. Accordingly, receivable component of working capital considering two months of fixed cost is worked out and allowed as under:

				(₹in lakh)
2014-15	2015-16	2016-17	2017-18	2018-19
15898.14	15760.46	15591.67	15397.14	15193.64

68. Maintenance spares @ 15% of operation and maintenance expenses are worked out and allowed as under:

				(₹in lakh)
2014-15	2015-16	2016-17	2017-18	2018-19
2062.05	2199.05	2345.15	2500.97	2667.13

69. O&M Expenses for one month are allowed as under:

				(₹in lakh)
2014-15	2015-16	2016-17	2017-18	2018-19
1145.58	1221.69	1302.86	1389.43	1481.74

Rate of interest on working capital

70. 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."

71. 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

72. 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	2062.05	2199.05	2345.15	2500.97	2667.13
O & M expenses	1145.58	1221.69	1302.86	1389.43	1481.74
Receivables	15898.14	15760.46	15591.67	15397.14	15193.64
Total	19105.77	19181.20	19239.69	19287.53	19342.51
Interest on working capital @ 13.50%	2579.28	2589.46	2597.36	2603.82	2611.24

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Annual Fixed Charges

73. Accordingly, the annual fixed charges approved for the generating station for the period 2014-19 are as under:

(₹in lakh) 2018-19 2014-15 2015-16 2016-17 2017-18 Return on Equity 41474.07 41474.07 41474.07 41474.07 41474.07 Interest on Loan 10700.04 8830.36 6794.34 4547.81 2189.49 26888.47 27008.52 27049.90 27084.02 27106.17 Depreciation Interest on Working 2579.28 2589.46 2597.36 2603.82 2611.24 Capital O & M Expenses 13746.97 14660.32 15634.36 16673.10 17780.86 Total 95388.84 94562.74 93550.03 92382.82 91161.83

Normative Annual Plant Availability Factor

74. 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 90% has been considered for this generating station, the same being a R.O.R Hydro Station with pondage.

Design Energy

75. The Commission in its order dated 30.5.2011 in Petition No.60/2010 had approved the annual Design Energy (DE) of 1907 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 as under:

Month	Design Energy
	(MUs)
April	110.7
May	230.3
June	266.7
July	275.6
August	275.6
September	261.3
October	134.5
November	84.0
December	73.4
January	64.3
February	55.6
March	74.6
Total	1907

Application Fee and Publication Expenses

- 76. 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 tariff filing fees of ₹1716000/- for the period 2014-15 in terms of the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012. The petitioner vide affidavit dated 05.12.2014 has submitted that it has incurred ₹374497/- as charges towards publication of the said tariff petition in the newspapers. Accordingly, in terms of Regulation 52 of the 2014 Tariff Regulations and in line with the decision in Commission's order dated 6.1.2016 in Petition No.232/GT/2014, the petitioner shall be entitled to recover the filing fees for the year 2014-15 and the expenses incurred on publication of notices for the period 2014-19 directly from the respondents. The filing fees for the remaining years of the tariff period 2015-19 shall be recovered pro rata after deposit of the same and production of documentary proof.
- 77. 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.
- 78. Petition No. 231/GT/2014 is disposed of in terms of the above.

Sd/-Sd/-Sd/-(Dr. M.K.lyer)(A.S Bakshi)(A.K.Singhal)(Gireesh B Pradhan)MemberMemberMemberChairperson

Annexure-1

Calculation of Weighted Average Rate of Interest on Ioan

(₹in lakh)

						(₹in lakh)
SI. no.		2014-15	2015-16	2016-17	2017-18	2018-19
1	2	3	4	5	6	7
	LIC Rs. 2500 crore					
	Gross Ioan - Opening	125800	125800	125800	125800	125800
	Cumulative repayments of Loans upto	52416.66	62899.99	73383.33	83866.66	94349.99
	previous year					
	Net loan - Opening	73383.34	62900.01	52416.67	41933.34	31450.01
	Add: Drawal (s) during the Year	0	0	0	0	0
	Less: Repayment (s) of Loans during	10483.33	10483.33	10483.33	10483.33	10483.33
	the year					
	Net loan - Closing	62900.00	52416.67	41933.33	31450.00	20966.67
	Average Net Loan	68141.67	57658.34	47175.00	36691.67	26208.34
	Rate of Interest on Loan	7.84%	7.81%	7.72%	7.61%	7.42%
	Interest on loan	5339.92	4502.47	3641.75	2792.67	1943.59
	CANARA BANK					
	Gross loan - Opening	20000	20000	20000	20000	20000
	Cumulative repayments of Loans upto	14000	16000	18000	20000	20000
	previous year					
	Net loan - Opening	6000	4000	2000	0	0
	Add: Drawal (s) during the Year	0	0	0	0	0
	Less: Repayment (s) of Loans during	2000	2000	2000	0	0
	the year					
	Net loan - Closing	4000	2000	0	0	0
	Average Net Loan	5000	3000	1000	0	0
	Rate of Interest on Loan	7.16%	7.37%	8.34%	0.00%	0.00%
	Interest on loan	357.85	221.02	83.45	0	0
	SYNDICATE BANK					
	Gross loan - Opening	18300	18300	18300	18300	18300
	Cumulative repayments of Loans upto	12810	14640	16470	18300	18300
	previous year					
	Net loan - Opening	5490	3660	1830	0	0
	Add: Drawal (s) during the Year	0	0	0	0	0
	Less: Repayment (s) of Loans during	1830	1830	1830	0	0
	the year					
	Net loan - Closing	3660	1830	0	0	0
	Average Net Loan	4575	2745	915	0	0
	Rate of Interest on Loan	8.36%	9.14%	12.95%	0.00%	0.00%
	Interest on loan	382.29	250.77	118.52	0	0
	ORIENTAL BANK OF COMMERCE					
	Gross loan - Opening	20000	20000	20000	20000	20000
	Cumulative repayments of Loans upto	14000	16000	18000	20000	20000
	previous year	14000	10000	10000	20000	20000
	Net loan - Opening	6000	4000	2000	0	0
	Add: Drawal (s) during the year	0000	4000	2000	0	0
	Less: Repayment (s) of loan during	2000	2000	2000	0	0
	Less. Nepayment (s) or loan duning		_ ∠000	∠000	ı	1

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the year					
Net loan - Closing	4000	2000	0	0	0
Average Net Loan	5000	3000	1000	0	0
Rate of Interest on Loan	8.64%	9.62%	14.37%	0.00%	0.00%
Interest on loan	432.03	288.67	143.75	0	0
					_
ORIENTAL BANK OF COMMERCE					
Gross loan - Opening	10000	10000	10000	10000	10000
Cumulative repayments of Loans upto	3000	4000	5000	6000	7000
previous year					
Net loan - Opening	7000	6000	5000	4000	3000
Add: Drawal(s) during the Year	0	0	0	0	0
Less: Repayment (s) of Loans during	1000	1000	1000	1000	1000
the year					
Net loan - Closing	6000	5000	4000	3000	2000
Average Net Loan	6500	5500	4500	3500	2500
Rate of Interest on Loan	7.47%	7.54%	7.59%	7.70%	7.90%
Interest on loan	485.73	414.65	341.59	269.52	197.45
State Bank of Patiala					
Gross loan - Opening	4000	4000	4000	4000	4000
Cumulative repayments of Loans upto	2800	3200	3600	4000	4000
previous year					
Net loan - Opening	1200	800	400	0	0
Add: Drawal(s) during the Year	0	0	0	0	0
Less: Repayment (s) of Loans during	400	400	400	0	0
the year					
Net loan - Closing	800	400	0	0	0
Average Net Loan	1000	600	200	0	0
Rate of Interest on Loan	9.49%	9.56%	9.84%	0.00%	0.00%
Interest on loan	94.88	57.38	19.68	0	0
O-SERIES BONDS	55000	55000	55000	55000	55000
Gross Ioan - Opening	55000	55000	55000	55000	55000
Cumulative repayments of loans upto	33000	38500	44000	49500	55000
previous year	00000	40500	44000	5500	0
Net loan - Opening	22000	16500	11000	5500	0
Add: Drawal (s) during the Year	0	0	0	0	0
Less: Repayment (s) of Loans during	5500	5500	5500	5500	0
the year	16500	11000	FFOO	0	0
Net loan - Closing	16500	11000 13750	5500	0	0
Average Net Loan	19250		8250	2750	•
Rate of Interest on Loan	8.80%	9.27%	10.27%	15.40%	0.00%
Interest on loan	1694.00	1273.98	847.00	423.50	0
TOTAL LOANS					
Cross loss Opening	252400.00	252400.00	252400.00	252400.00	252400.00
Gross loan - Opening	253100.00	253100.00	253100.00	253100.00	253100.00
Cumulative repayments of loans upto	132026.66	155239.99	178453.33	201666.66	218649.99
Previous year Net loan - Opening	121073.34	97860.01	74646.67	51433.34	34450.01
· •					
Add: Drawal (s) during the year Less: Repayment (s) of Loans during	0.00 23213.33	0.00	0.00 23213.33	0.00	0.00
, , , ,	23213.33	23213.33	∠3∠13.33	16983.33	11483.33
the year					

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on loans	3.0370	0.1070	0.2470	0.1270	7.4070
Weighted average Rate of Interest	8.03%	8.13%	8.24%	8.12%	7.46%
Interest on loan	8786.70	7008.94	5195.73	3485.69	2141.04
Average Net Loan	109466.67	86253.34	63040.01	42941.67	28708.34
Net loan - Closing	97860.01	74646.67	51433.34	34450.01	22966.67

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