

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 572/GT/2020**

**Coram:**

**Shri I. S. Jha, Member  
Shri Arun Goyal, Member  
Shri Pravas Kumar Singh, Member**

**Date of Order: 16<sup>th</sup> March, 2023**

**In the matter of**

Petition for truing-up of tariff for the period 2014-19 and determination of tariff for the period 2019-24 in respect of Tilaiya Hydel Power Station, Units I & II (4 MW).

**And**

**In the matter of**

Damodar Valley Corporation,  
DVC Towers, VIP Road  
Kolkata

**...Petitioner**

**Vs**

1. West Bengal State Electricity Distribution Company Limited,  
Block 'DJ' Sector-11, Salt Lake City  
Kolkata – 700 091

2. Jharkhand Bijli Vitran Nigam Limited  
Engineering Building, HEC, Dhurwa,  
Ranchi- 834 004

**...Respondents**

3. Damodar Valley Power Consumers Association  
9, AJC Bose Road, 4<sup>th</sup> Floor, Kolkata – 700017

**...Objector**

**Parties Present:**

Shri M.G. Ramachandran, Senior Advocate, DVC  
Ms Anushree Bardhan, Advocate, DVC  
Ms. Srishti Khandaria, Advocate, DVC  
Shri Manik Rakshit, DVC  
Shri Sandip Pal, DVC  
Shri Samit Mandal, DVC  
Shri A R Sinha, DVC  
Shri Rajiv Yadav, Advocate, DVPCA



## **ORDER**

This petition has been filed by the Petitioner, Damodar Valley Corporation, for trueing-up of tariff of Tilaiya Hydel Power station Unit Nos. 1 & 2 (2 x 2 MW) (in short “the generating station”) for the period 2014-19, in terms of Regulation 8(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (in short ‘the 2014 Tariff Regulations’) and for determination of tariff of the generating station for the period 2019-24, in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short ‘the 2019 Tariff Regulations’).

2. The Petitioner is a statutory body established by the Central Government under the Damodar Valley Corporation Act, 1948 (hereinafter referred to as the 'DVC Act') for the development of the Damodar Valley, with three participating Governments, namely, the Central Government, the Government of West Bengal and the Government of Jharkhand. The dates of commercial operation of the different Units of the generating station are as under:

	<b>Actual COD</b>
Unit – I	February, 1953
Unit – II	August, 1953

### **Background**

3. Petition No. 66/2005 was filed by the Petitioner for approval of the revenue requirements and for determining the tariff for electricity related activities, that is, the generation, transmission and distribution of electricity, undertaken by it for the period from 1.4.2004 to 31.3.2009. The Commission by its order dated 3.10.2006 determined tariff in respect of the generating stations and inter-state transmission systems of the Petitioner, after allowing a special dispensation to the Petitioner to continue with the prevailing tariff till 31.3.2006. Against the Commission’s order dated 3.10.2006, the Petitioner filed Appeal No.



273/2006 before the Appellate Tribunal for Electricity (hereinafter referred to as 'APTEL') on various issues. Similarly, appeals were also filed before APTEL by some of the objectors/ consumers, namely, Maithon Alloys Ltd and others (Appeal No. 271/2006), Bhaskhar Shrachi Alloys Ltd. and others (Appeal No. 272/2006), State of Jharkhand (Appeal No. 275/2006) and the West Bengal State Electricity Regulatory Commission (Appeal No. 8/2007) challenging the order of the Commission dated 3.10.2006 on various grounds. APTEL by its judgment dated 23.11.2007 disposed of the said appeals ('Appeal Nos. 273/2006 & batch') as under:

*"113. In view of the above, the subject Appeal No. 273 of 2006 against the impugned order of Central Commission passed on October 3, 2006 is allowed to the extent described in this judgment and we remand the matter to Central Commission for denovo consideration of the tariff order dated October 3, 2006 in terms of our findings and observations made hereinabove and according to the law. Appeal No. 271, 272 and 275 of 2006 and No. 08 of 2007 are also disposed of, accordingly"*

4. Against the above judgment dated 23.11.2007, some of the parties namely, the Central Commission (Civil Appeal No.4289/2008), the West Bengal State Electricity Regulatory Commission (Civil Appeal No.804/2008), M/s Bhaskhar Shrachi Alloys Ltd & Ors (Civil Appeal No 971-973/2008), the State of Jharkhand (Civil Appeal No.45044508/2008) and the State of West Bengal (Civil Appeal No.1914/2008) filed Civil Appeals before the Hon'ble Supreme Court. Thereafter, in terms of the directions contained in the judgment of APTEL dated 23.11.2007 in Appeal No. 273/2006 and other connected appeals, for a denovo consideration of the order dated 3.10.2006, the Petition No. 66/2005 (with I.A. Nos.19/2009 and 23/2009) was heard by the Commission and tariff of the generation and inter-state transmission systems of the Petitioner for the period 2006-09 was re-determined by order dated 6.8.2009, subject to the final outcome of the said Civil Appeals pending before the Hon'ble Supreme Court. Against the Commission's order dated 6.8.2009, the Petitioner filed appeal (Appeal No.146/2009) before APTEL on various issues. However, APTEL by its judgment dated 10.5.2010, rejected the prayers of the



Petitioner and upheld the order of the Commission dated 6.8.2009. Against the judgment of APTEL dated 10.5.2010, the Petitioner filed appeal (Civil Appeal No.4881/2010) before the Hon'ble Supreme Court and the Hon'ble Court by interim order dated 9.7.2010 stayed the directions of APTEL for refund of excess amount billed, until further orders. However, on 17.8.2010 the Hon'ble Court had passed interim order in the said appeal. During the pendency of these appeals, the Commission, in terms of the judgment of APTEL, while notifying the 2014 Tariff Regulations, applicable for the period 2014-19, incorporated Regulation 53, containing special provisions related to the generating stations of the Petitioner. Accordingly, the tariff of the generating stations of the Petitioner for the period 2014-19, were determined by this Commission, subject to the final decision of the Hon'ble Supreme Court, in the said civil appeals. Similar provisions were made by the Commission under Regulation 72, while notifying the 2019 Tariff Regulations, applicable for the period 2019-24.

5. Meanwhile, the Hon'ble Supreme Court vide its common judgment dated 23.7.2018 in Civil Appeal No(s) 971-973/2008 (along with C.A Nos. 1914/2008, C.A No. 4504-4508/2008 and C.A No. 4289/2008) dismissed all the Civil Appeals thereby affirming the judgment of APTEL dated 23.11.2007 in Appeal Nos. 273/2006 & batch. Further, vide judgment dated 3.12.2018, the Hon'ble Supreme Court dismissed the Civil Appeal No. 4881/2010 filed by the Petitioner, against the judgment of APTEL dated 10.5.2010. In this background and in terms of the special provisions under the 2014 and 2019 Tariff Regulations, the tariff of the generating station of the Petitioner, is trued-up for the period 2014-19 and also determined for the period 2019-24, as stated in the subsequent paragraphs.

6. The Commission vide order dated 7.8.2013 in Petition No. 273/GT/2012 has determined the annual fixed charges of the generating station for the period 2009-14, based



on actual additional capital expenditure for the years 2009-10, 2010-11 and projected additional capital expenditure for the years 2011-12, 2012-13 and 2013-14. Thereafter, the Commission vide order dated 29.7.2016 in Petition No. 468/GT/2014 had revised the annual fixed charges of the generating station for the period 2009-14 after truing-up exercise. Subsequently, the Commission vide order dated 23.9.2016 in Petition No. 351/GT/2014 has determined the annual fixed charges of the generating station for the period 2014-19 in terms of Regulation 6(1) of the 2014 Tariff Regulations.

### **Truing-up of tariff for the period 2014-19**

7. The Commission vide order dated 23.9.2016 in Petition No. 351/GT/2014 had approved the tariff of the generating station for the period 2014-19. The capital cost and the annual fixed charges allowed vide order dated 23.9.2016 in Petition No. 351/GT/2014 are as follows:

#### **Capital cost allowed**

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost (A)	267.49	279.16	289.64	289.64	289.64
Add: Net Additions allowed (B)	11.67	10.48	-	-	-
Closing Capital Cost (C) = (A) + (B)	279.16	289.64	289.64	289.64	289.64
Average Capital Cost (D) = (A+B) / 2	273.32	284.40	289.64	289.64	289.64

#### **Annual fixed charges allowed**

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	6.89	7.16	7.30	7.30	7.30
Interest on loan	0.08	0.18	0.11	-	-
Return on Equity	21.90	22.44	22.70	22.70	22.70
Interest on Working Capital	39.28	41.87	44.61	47.52	50.64
O&M Expenses	698.99	745.43	794.95	847.77	904.10
<b>Sub-Total (A)</b>	<b>767.13</b>	<b>817.09</b>	<b>869.66</b>	<b>925.29</b>	<b>984.73</b>
<b>Additional Claims allowed</b>					
Share of Common Office Expenses	0.63	0.58	0.54	0.54	0.54
Additional O&M on account of Ash Evacuation, Mega Insurance, CISF Security and Share of	-	-	-	-	-



	2014-15	2015-16	2016-17	2017-18	2018-19
subsidiary activities					
Share of Pension & Gratuity Contribution	-	-	-	-	-
<b>Sub-Total (B)</b>	<b>0.63</b>	<b>0.58</b>	<b>0.54</b>	<b>0.54</b>	<b>0.54</b>
<b>Total Annual Fixed Charges (C = A+B)</b>	<b>767.76</b>	<b>817.67</b>	<b>870.21</b>	<b>925.84</b>	<b>985.27</b>

### **Present Petition**

8. Regulation 8(1) of the 2014 Tariff Regulations provides as follows:

*“(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 31.3.2019, 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, shall make an application for interim truing up of capital expenditure including additional capital expenditure in FY 2016-17.”*

9. In terms of the above Regulation, the Petitioner has filed the present petition for truing-up of tariff of the generating station, for the period 2014-19 and has claimed the capital cost (in Form 1(I) of the petition) and annual fixed charges as under:

#### **Capital Cost claimed**

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost (A)	267.49	267.49	278.87	278.87	278.85
Add: Addition during the year / period (B)	0.00	11.37	-	(-)0.02	1.52
Less: De-capitalization during the year / period (C)	0.00	0.00	0.00	0.00	0.00
<b>Closing Capital Cost (G)=(A+B-C-D-E+F)</b>	<b>267.49</b>	<b>278.87</b>	<b>278.87</b>	<b>278.85</b>	<b>280.36</b>
Average Capital Cost (H)=(A+G/2)	267.49	273.18	278.87	278.86	279.61

#### **Annual fixed charges claimed.**

*(Rs in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	18.48	18.87	10.14	-	0.67
Interest on loan	-	-	-	-	0.02
Return on Equity	27.34	27.83	28.18	28.18	28.31
Interest on Working Capital	40.52	43.41	46.49	49.76	51.71
O&M Expenses	698.99	745.43	794.95	847.77	904.10
<b>Sub-Total (A)</b>	<b>785.32</b>	<b>835.54</b>	<b>879.76</b>	<b>925.71</b>	<b>984.80</b>
<b>Additional Claims Allowed</b>					
Impact of Pay Revision due to recommendation of 7th Pay Commission	-	-	4.86	6.12	4.31
Impact of GST as 'change in law'	-	-	-	0.01	0.02



	2014-15	2015-16	2016-17	2017-18	2018-19
Interest & Contribution on Sinking Fund (As per section 40, Part IV of DVC Act)	11.12	11.94	13.71	-	-
Share of P&G contribution	5.85	15.02	16.54	37.26	7.13
Share of Common Office Expenditure	0.78	0.73	0.62	0.67	0.72
Expenses due to Mega insurance, CISF Security & expenditure for Subsidiary activity	19.25	22.48	37.94	54.78	35.39
<b>Sub-total: B</b>	<b>37.00</b>	<b>50.18</b>	<b>73.67</b>	<b>98.84</b>	<b>47.57</b>
<b>Grand Total (A + B)</b>	<b>822.33</b>	<b>885.71</b>	<b>953.43</b>	<b>1,024.55</b>	<b>1,032.37</b>

10. As stated, the Petitioner has filed this petition vide affidavit dated 28.1.2020. Subsequently, vide affidavits dated 20.9.2021, 19.10.2021 and 16.11.2021, the Petitioner has furnished certain additional information. The matter was heard through video conferencing on 25.1.2022 and the Commission, after permitting the Respondents and Objector to file reply/additional submissions, reserved its order in the matter. In compliance to the said directions, the Petitioner has filed the additional information vide its affidavit dated 14.2.2022, after serving copies to the Respondents/Objector, DVPCA. The Objector, has filed its response, vide affidavit dated 27.4.2021 and the Petitioner has filed its rejoinder to the same, vide affidavit dated 2.11.2021. Taking into consideration the submissions of the parties and the documents available on record, we proceed to examine the claims of the Petitioner, in this petition, on prudence check, as stated in the subsequent paragraphs.

### **Capital Cost**

11. Regulation 9 (3) of the 2014 Tariff Regulations provides as follows:

*“9. Capital Cost:*

*(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) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and*
- (c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.*

*xxx...”*

12. The Commission vide its order dated 29.7.2016 in Petition No. 468/GT/2014, had allowed the closing capital cost of Rs. 267.49 lakh, as on 31.3.2014. The same has been



considered as the opening capital cost, as on 1.4.2014, in accordance with Regulation 9(3)(a) of the 2014 Tariff Regulations.

### **Additional Capital Expenditure**

13. Regulation 14 of the 2014 Tariff Regulations, provides as under:

*“14. Additional Capitalization and De-capitalization:*

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

*(i) Un-discharged liabilities recognized to be payable at a future date;*

*(ii) Works deferred for execution;*

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

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

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

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

*(2) The capital expenditure incurred or projected to be incurred in respect of the new project on the following counts within the original scope of work 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) Deferred works relating to ash pond or ash handling system in the original scope of work; and*

*(iv) 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.*

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

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

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

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

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

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



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

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

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

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

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

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

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

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

14. The details of the additional capital expenditure allowed vide order dated 23.9.2016 in Petition No. 351/GT/2014 is as under:



(Rs. in lakh)

	Capital cost as on 31.3.2014	Additional Capital Expenditure (2014-19)						Capital cost as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	Total	
Approved order vide dated 23.9.2016	267.49	11.67	10.48	0.00	0.00	0.00	22.15	289.64
Claimed	267.49	0.00	11.37	0.00	(-)0.02	1.52	12.87	280.36

15. The Petitioner, in Form-9A of the petition, has claimed the additional capital expenditure incurred for the period 2014-19. The Petitioner has submitted that IDC and undischarged liabilities, were maintained on consolidated year to year basis, but not item wise, and therefore, the additional capital expenditure claimed for each item is on accrual basis. It is observed that the Petitioner, apart from additional capital expenses of generating station, has claimed, expenses towards Tilaiya Dam and Konar dam which are to be considered only for power generation, named as 'Power Component' excluding expenses towards irrigation component and flood control component towards these Dams of this multi-purpose project. Thereafter, it is noticed that the apportioned cost with respect to Tilaiya and Konar Dam, has been arrived at, after factoring 33% of total expenses, on account of power Component. As regards, Power Component of Konar dam (after factoring 33% of total expenses), the expenses have been further apportioned towards Maithon hydel station, along with Panchet and Tilaiya Hydel station, applicable at the rate of 54.13%, 43.58% and 2.28% respectively. Since the generating station and appurtenant works (works towards Tilaiya Dam & Konar Dam) contribute for power generation, as well as for irrigation and flood control purpose, its cost has been apportioned for power generation, Irrigation system and Flood control, depending upon the proportion of water utilization for systems. Also, the revised claim of the Petitioner vide affidavit dated 13.7.2022 in Petition No. 578/GT/2020 for Konnar dam, has ben considered. Accordingly, the additional capital expenditure claimed by the Petitioner is as under:



(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
<b>Generating Station</b>						
Computer and IT Assets	0.00	0.00	0.00	0.00	1.50	1.50
<b>Subtotal Additional capital expenditure claimed (A)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1.50</b>	<b>1.50</b>
<b>Tilaiya Dam</b>						
Buildings	0.00	34.23	0.00	0.00	0.00	34.23
Land & Land Rights	0.00	0.00	0.00	0.00	(-) 0.02	(-) 0.02
Subtotal Additional capital expenditure claimed	0.00	34.23	0.00	0.00	(-) 0.02	34.21
<b>Power Component in total Additional capital expenditure claimed (B)</b>	<b>0.00</b>	<b>11.30</b>	<b>0.00</b>	<b>0.00</b>	<b>(-) 0.01</b>	<b>11.29</b>
<b>Konar Dam (Revised considering revised claim as per affidavit dated 13.7.2022)</b>						
Buildings	0.00	10.03	0.00	0.00	0.00	10.03
Sub Station Equipment	0.00	0.00	0.00	0.00	2.80	2.80
Computer IT assets	0.59	0.00	0.00	0.00	0.00	0.59
Other Assets	0.00	0.00	0.00	0.00	0.38	0.38
Subtotal Additional capital expenditure claimed	0.59	10.03	0.00	0.00	3.18	13.80
Power Component in total Additional capital expenditure claimed	0.19	3.31	0.00	0.00	1.05	4.55
Power Component allocated to generating station (@2.28%) (C)	0.00	0.08	0.00	0.00	0.02	0.10
<b>Total Additional capital expenditure (A)+(B)+(C)</b>	<b>0.00</b>	<b>11.37</b>	<b>0.00</b>	<b>0.00</b>	<b>1.52</b>	<b>12.89</b>

16. Accordingly, based on the submissions of the parties, and the documents available on record, we now proceed to examine the claim of the Petitioner, as under:

### **Additional Capital Expenditure pertaining to the generating station**

#### **a) Computer and IT Assets**

(Rs. in lakh)

Sl. No.	Assets/Works	Amount Claimed	Regulation	Justification and Reasons of Admissibility	Amount Allowed
	<b>2018-19</b>				
1	Personal Computer (PC) FIXED ASSET	1.50	14(3)(viii)	Considering the fact that the expenditure incurred is for assets which are minor in nature, the same is <b>not allowed</b> , in terms of the first proviso to Regulation 14(3) of the 2014 Tariff Regulations.	0.00
	<b>Amount claimed</b>	<b>1.50</b>			
	<b>Amount allowed</b>				<b>0.00</b>



17. Accordingly, no additional capital expenditure has been allowed for the period 2018-19.

**Additional Capital Expenditure pertaining to Tilaiya Dam**

**a) Buildings**

**b)**

(Rs. in lakh)

Sl. No.	Assets/Works	Amount Claimed	Regulation	Justification and Reasons of Admissibility	Amount Allowed
	<b>2015-16</b>				
1	Buildings	34.23	14(3)(viii)	The Petitioner has claimed this expenditure for construction of various capital works of buildings and associated facilities for the convenience of office activities. However, the Petitioner has not indicated any details of asset/works. In our view, the additional capital expenditure claimed by the petitioner is in the nature of O&M expenses. Hence, the claim of the Petitioner is <b>not allowed</b> .	0.00
	<b>Amount claimed</b>	<b>34.23</b>			
	<b>Amount allowed</b>				<b>0.00</b>

**c) Land & Land Rights**

(Rs. in lakh)

Sl. No.	Assets/Works	Amount Claimed	Regulation	Justification	Amount Allowed
	<b>2018-19</b>				
1	Land & Land Rights	(-) 0.02		Rectification entry. Reversal of excess amount earlier booked under this head.	(-) 0.02
	<b>Amount claimed</b>	<b>(-) 0.02</b>			
	<b>Amount allowed</b>				<b>(-) 0.02</b>

18. As regards Power component, it is noticed that the apportioned cost with respect to Tilaiya Dam is to be arrived at, after factoring 33% of total expenses, on account of power Component respectively. As such, the total additional capital expenditure on account of Power Component towards Tilaiya Dam, is allowed as under:



*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
<b>Tilaiya Dam</b>						
Buildings	0.00	0.00	0.00	0.00	0.00	0.00
Land & Land Right	0.00	0.00	0.00	0.00	(-)0.02	(-)0.02
Total Additional capital expenditure claimed	0.00	0.00	0.00	0.00	(-)0.02	(-)0.02
Power Component in total Additional capital expenditure claimed	0.00	0.00	0.00	0.00	(-)0.01	(-)0.01
<b>Power Component allocated to the generating station (@100.00%)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>(-)0.01</b>	<b>(-)0.01</b>

### **Additional Capital Expenditure pertaining to Konar Dam**

19. As discussed above, the allowable expenditure pertaining to Konar Dam has been arrived at, after factoring 33% of total expenses, on account of Power Component. This expense is further apportioned to the generating station, along with Maithon, Panchet and Tilaiya Hydel stations at the rate of 54.13%, 43.58% and 2.28% respectively. In this regard it is noticed that the Petitioner has revised the additional capital expenditure for Konar Dam in Petition No. 578/GT/2020 related to Maithon Dam. Since, the Petitioner has submitted the revised additional capital expenditure pertaining to Konar dam in this petition, we have considered the approved additional capital expenditure for Konar Dam as claimed, as approved in Petition No. 578/GT/2020. Accordingly, the total additional capital expenditure of Rs. 10.03 lakh for the period 2014-19, pertaining to Konar Dam, towards the generating station is considered. Accordingly, the total additional capital expenditure on account of Power Component, towards Konar Dam, allocated to this generating station is allowed as under:

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
<b>Konar Dam</b>						
Buildings	0.00	10.03	0.00	0.00	0.00	10.03
Sub Station Equipment	0.00	0.00	0.00	0.00	0.00	0.00
Computer IT assets	0.00	0.00	0.00	0.00	0.00	0.00
Other Assets	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous Asset	0.00	0.00	0.00	0.00	0.00	0.00



	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Subtotal Additional capital expenditure claimed	0.00	10.03	0.00	0.00	0.00	10.03
Power Component in total Additional capital expenditure allowed (@33.00%)	0.00	3.31	0.00	0.00	0.00	3.31
<b>Power Component allocated to the generating station (@2.28%)</b>	<b>0.00</b>	<b>0.08</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.08</b>

20. Based on the above discussion, the additional capital expenditure (for Power Component) allowed for the period 2014-19, excluding liabilities, is as under:

	<i>(Rs. in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19	Total
<b>Tilaiya Generating Station</b>						
Computer and IT Assets	0.00	0.00	0.00	0.00	0.00	0.00
<b>Subtotal Additional capital expenditure allowed - A</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Tilaiya Dam</b>						
Buildings	0.00	0.00	0.00	0.00	0.00	0.00
Land & Land Rights	0.00	0.00	0.00	0.00	(-)0.02	(-)0.02
Subtotal Additional capital expenditure allowed - B	0.00	0.00	0.00	0.00	(-)0.02	(-)0.02
Power Component in total Additional capital expenditure allowed C= 33% of B	0.00	0.00	0.00	0.00	(-)0.01	(-)0.01
<b>Power Component in total Additional capital expenditure allowed D=100% of above C</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>(-)0.01</b>	<b>(-)0.01</b>
<b>Konar Dam</b>						
Buildings	0.00	10.03	0.00	0.00	0.00	10.03
Sub Station Equipment	0.00	0.00	0.00	0.00	0.00	0.00
Computer IT assets	0.00	0.00	0.00	0.00	0.00	0.00
Other Assets	0.00	0.00	0.00	0.00	0.00	0.00
Office Equipment's	0.00	0.00	0.00	0.00	0.00	0.00
Sub-total additional capital expenditure allowed - E	0.00	10.03	0.00	0.00	0.00	10.03
<b>Power Component in total Additional capital expenditure allowed F=33% of E</b>	<b>0.00</b>	<b>3.31</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.31</b>
<b>Power Component allocated to generating station G =2.28% of F</b>	<b>0.00</b>	<b>0.08</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.08</b>



	2014-15	2015-16	2016-17	2017-18	2018-19	Total
<b>Total Additional capital expenditure allowed for the period A+D+G</b>	0.00	0.08	0.00	0.00	(-)0.01	0.07

### **De-capitalization**

21. The Petitioner has not claimed any de-capitalization for assets/works such as, Computer in Form 9Bi of the petition. Accordingly, the de-capitalization considered is 'nil'.

### **Capital cost allowed for the period 2014-19**

22. Accordingly, the capital cost approved for the generating station for the period 2014-19 is as under:

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	267.49	267.49	267.57	267.57	267.57
Net Addition during the year / period	-	0.08	-	-	(-)0.01
<b>Closing Capital Cost</b>	<b>267.49</b>	<b>267.57</b>	<b>267.57</b>	<b>267.57</b>	<b>267.56</b>
Average Capital Cost	267.49	267.53	267.57	267.57	267.56

### **Debt-Equity Ratio**

23. Regulation 19 of the 2014 Tariff Regulations provides as follows:

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

*Provided that*

- (i) where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:*
- (ii) the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*
- (iii) any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.*

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

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

*(3) In case of the generating station and the transmission system including*



communication system declared under commercial operation prior to 1.4.2014, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered:

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

24. The gross normative loan and equity amounting to Rs. 136.54 lakh and Rs. 130.95 lakh, as considered in the Commission's order dated 23.9.2016 in Petition No. 351/GT/2014 has been retained for the purpose of tariff. Further, the additional capital expenditure admitted as above has been allocated in the debt-equity ratio of 70:30. The opening and closing debt and equity is as under:

	<b>As on 31.3.2014</b>	<b>in %</b>	<b>Additional Capital Expenditure in 2014-19</b>	<b>in %</b>	<b>As on 31.3.2019</b>	<b>in %</b>
Debt	136.54	51.04%	0.05	70%	136.59	51.05%
Equity	130.95	48.96%	0.02	30%	130.97	48.95%
<b>Total</b>	<b>267.49</b>	<b>100.00%</b>	<b>0.07</b>	<b>100%</b>	<b>267.56</b>	<b>100.00%</b>

### **Return on Equity**

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

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

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

*Provided that:*

- (i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:*
- (ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:*
- (iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:*
- (iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/*



*Free Governor Mode*

- (v) Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:
- (vi) 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:
- (vii) additional RoE shall not be admissible for transmission line having length of less than 50 kilometer.”

26. Regulation 25 of the 2014 Tariff Regulations provides as follows:

*“25. 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.*

*Illustration.*

(i) *In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess: Rate of return on equity = 15.50/(1-0.2096) = 19.610%*

(ii) *In case of generating company or the transmission licensee paying normal corporate tax including surcharge and cess:*

(a) *Estimated Gross Income from generation or transmission business for FY 2014-15 is Rs 1000 crore.*

(b) *Estimated Advance Tax for the year on above is Rs 240 crore.*

(c) *Effective Tax Rate for the year 2014-15 = Rs 240 Crore/Rs 1000 Crore = 24%*

(d) *Rate of return on equity = 15.50/ (1-0.24) = 20.395%*

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



27. The base rate of Return on Equity (ROE) as allowed under Regulation 24 of the 2014 Tariff Regulations is to be grossed up with the effective tax rate of the respective financial years. Also, in term of Regulation 25(3) of the 2014 Tariff Regulations, the generating company, shall true up the grossed up rate of ROE, 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 period 2014-15 to 2018-19, on actual gross income of any financial year.

28. DVPCA has submitted that though the Petitioner has considered effective tax rate of 20.9605%, 21.3416%, 21.3416%, 21.3416% and 21.548% for computation of ROE for the period 2014-19, the Audited accounts reveal that the Petitioner has not paid any actual tax during the period from 2014-15 to 2017-18. It has also submitted that for 2018-19, it is apparent that the deferred tax liability which gets materialised in the year, pertains to the year 2012-13. DVPCA has referred to Regulation 49 of the 2014 Tariff Regulations and submitted that the claim is in contravention to the 2014 Tariff Regulations and the ROE is to be allowed at a rate of 16.50% only, without considering any effective tax rate. In response, the Petitioner, has clarified that there is no income tax liability on the Petitioner for the period 2014-19. However, it has sought leave of the Commission, to claim income tax liability, if any, which may arise in future.

29. The matter has been considered. Since the Petitioner has not been paying any income tax in any of the financial year of the period 2014-19, 'Nil' rate has been considered as the effective tax rate for the purpose of grossing up of ROE, in terms of the 2014 Tariff Regulations. Accordingly, ROE has been worked out as under:

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Normative Equity-Opening (A)	130.95	130.95	130.97	130.97	130.97
Addition of Equity due to additional capital expenditure (B)	0.00	0.02	0.00	0.00	0.00
Normative Equity-Closing (C) =	130.95	130.97	130.97	130.97	130.97



	2014-15	2015-16	2016-17	2017-18	2018-19
(A) + (B)					
Average Normative Equity (D) = (A+C)/2	130.95	130.96	130.97	130.97	130.97
Return on Equity (Base Rate) (E)	16.50%	16.50%	16.50%	16.50%	16.50%
Effective Tax Rate (F)	0.00%	0.00%	0.00%	0.00%	0.00%
Rate of Return on Equity (Pre-Tax) (G) = (E)/(1-F)	16.50%	16.50%	16.50%	16.50%	16.50%
<b>Return on Equity (Pre-Tax) annualised (H) = (D)*(G)</b>	<b>21.61</b>	<b>21.61</b>	<b>21.61</b>	<b>21.61</b>	<b>21.61</b>

### Interest on Loan

30. Regulation 26 of the 2014 Tariff Regulations provides as follows:

*“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 Decapitalization 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 de-capitalization of such asset*

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

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

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

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

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

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

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

*(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business)*



*Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:*

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

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

- (a) The gross normative loan of Rs. 136.54 lakh has been considered on 1.4.2014, in line with the gross normative loan balance as on 31.3.2014, in order dated 29.7.2016 in Petition No. 468/GT/2014. In addition to this, the loan component towards additional capitalization has been considered as per the approved debt equity ratio.
- (b) Cumulative repayment of loan of Rs 136.54 lakh as on 31.3.2014 has been considered as cumulative repayment as on 1.4.2014.
- (c) Addition to normative loan on account of additional capital expenditure approved above has been considered on year to year basis.
- (d) Depreciation allowed has been considered as repayment of normative loan, if any during the respective years of the period 2014-19.

32. In line with the Regulations, the Weighted Average Rate of Interest (WAROI) has been calculated by applying the actual loan portfolio, existing as on 1.4.2014, along with subsequent additions, during the period 2014-19, if any, for the generating station. Further, actual loans have been considered, while computing WAROI, based on the clarifications furnished by the Petitioner in Petition No. 578/GT/2020. In case of loans carrying floating rate of interest, the rate of interest as provided by the Petitioner, has been considered for the purpose of tariff. Necessary calculation for interest on loan is as follows:

*(Rs in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross opening loan <b>(A)</b>	136.54	136.54	136.59	136.59	136.59
Cumulative repayment of loan upto previous year <b>(B)</b>	136.54	136.54	136.59	136.59	136.59
Net Loan Opening <b>(C)=(A)-(B)</b>	0.00	0.00	0.00	0.00	0.00
Addition due to additional capital expenditure <b>(D)</b>	0.00	0.05	0.00	0.00	(-)0.01
Repayment during the year <b>(E)</b>	0.00	0.05	0.00	0.00	(-)0.01



	2014-15	2015-16	2016-17	2017-18	2018-19
Cumulative repayment adjustment on a/c of de-capitalization (F)	0.00	0.00	0.00	0.00	0.00
Net Repayment (G)=(E)-(F)	0.00	0.05	0.00	0.00	(-)0.01
Net Loan Closing (H)= (C+D-G)	0.00	0.00	0.00	0.00	0.00
Average Loan(I)=(C+H)/2	0.00	0.00	0.00	0.00	0.00
Weighted Average Rate of Interest of loan (J)	8.940%	8.942%	8.945%	6.314%	6.912%
<b>Interest on Loan (K=I*J)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## Depreciation

33. Regulation 27 of the 2014 Tariff Regulations provides as follows:

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

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

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

*(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset: Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:*

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

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

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

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



station and transmission system:

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

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

*(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) alongwith justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.*

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

34. Regulation 53(2)(iii) of the 2014 Tariff Regulations provides as follows:

*“53. Special Provisions relating to Damodar Valley Corporation. (1) Subject to clause (2), these regulations shall apply to determination of tariff of the projects owned by Damodar Valley Corporation (DVC).*

*(2) The following special provisions shall apply for determination of tariff of the projects owned by DVC:*

*(i)xx....*

*(ii)xx*

*(iii) Depreciation: The depreciation rate stipulated by the Comptroller and Auditor General of India in terms of section 40 of the Damodar Valley Corporation Act, 1948 shall be applied for computation of depreciation of projects of DVC.”*

35. The cumulative depreciation for Rs. 202.90 lakh is considered as on 1.4.2014, in line with the cumulative depreciation as on 31.3.2014, as allowed in order dated 29.7.2016 in Petition No. 468/GT/2014. The weighted average rate of depreciation calculated in terms of the Regulation 53(2)(iii) read with Regulation 27 of the 2014 Tariff Regulations has been considered for the calculation of depreciation. Accordingly, depreciation worked out and allowed is shown in the table as follows:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block <b>(A)</b>	267.49	267.49	267.57	267.57	267.57
Net Additional capital expenditure during 2014-19 <b>(B)</b>	-	0.08	-	-	(-)0.01
Closing gross block <b>(C=A+B)</b>	267.49	267.57	267.57	267.57	267.56
Average gross block <b>(D)=(A+C)/2</b>	267.49	267.53	267.57	267.57	267.56
Value of Freehold land	1.00	1.00	1.00	1.00	1.00



	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciable Value (after adjusting 'Value of Freehold land') <b>(E=(D-Value of Freehold land)*90%)</b>	239.84	239.88	239.91	239.91	239.91
Remaining Depreciable Value at the beginning of the year <b>(F=E-Cum Dep at 'L' at the end of previous year)</b>	36.94	18.50	0.06	0.00	0.00
Rate of Depreciation <b>G)</b>	6.91%	6.91%	6.91%	6.91%	6.96%
Balance useful Life <b>(H)</b>					
<b>Depreciation (I=Min(D*G,F)</b>	<b>18.48</b>	<b>18.48</b>	<b>0.06</b>	<b>0.00</b>	<b>0.00</b>
Cumulative Depreciation at the end of the year <b>(J=I+ Cum Dep at 'L' at the end of previous year)</b>	221.38	239.85	239.91	239.91	239.91
Less: Depreciation adjustment on account of de-capitalization <b>(K)</b>	0.00	0.00	0.00	0.00	0.00
Cumulative Depreciation at the end of the year <b>(L)</b>	<b>221.38</b>	<b>239.85</b>	<b>239.91</b>	<b>239.91</b>	<b>239.91</b>

### **Operation and Maintenance Expenses**

36. Regulation 29(3)(a) of the 2014 Tariff Regulations provides for O&M expenses of hydro generating station as under:

*"29. Operation and Maintenance Expenses:*

*(3) Hydro generating stations*

*(a) Following operations and maintenance expense norms shall be applicable for hydro generating stations which have been operational for three or more years as on 01.04.2014:*

*(Rs. in lakh)*

Tilaiya Hydel Station	2014-15	2015-16	2016-17	2017-18	2018-19
	698.99	745.43	794.95	847.77	904.10

37. The O&M expenses claimed by the Petitioner for the period 2014-19, are in terms of Regulation 29(3)(a) of the 2014 Tariff Regulations and hence, allowed.

### **Interest on Working Capital**

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

*"28 (1) (c) Hydro generating station including pumped storage hydroelectric generating station and transmission system including communication system:*

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

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

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



### **Working capital for Receivables**

39. Accordingly, Receivable's component of working capital has been worked out on the basis of two months of fixed cost as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
129.77	137.94	143.50	152.79	162.69

### **Working capital for Maintenance spares**

40. Maintenance spares @ 15% of O&M expenses are worked out and allowed as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
104.85	111.81	119.24	127.17	135.62

### **Working capital for O&M expenses (one month)**

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

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
58.25	62.12	66.25	70.65	75.34

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

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

43. 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. Accordingly, interest on working capital is allowed as under:

<i>(Rs. in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19
Working capital for O&M expenses (one month)	58.25	62.12	66.25	70.65	75.34
Working capital for Maintenance Spares (15% of O&M expenses)	104.85	111.81	119.24	127.17	135.62



	2014-15	2015-16	2016-17	2017-18	2018-19
Working capital for Receivables (two months of fixed cost)	129.77	137.94	143.50	152.79	162.69
<b>Total Working Capital</b>	<b>292.87</b>	<b>311.87</b>	<b>328.99</b>	<b>350.60</b>	<b>373.65</b>
Working capital for Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Total Interest on Working capital</b>	<b>39.54</b>	<b>42.10</b>	<b>44.41</b>	<b>47.33</b>	<b>50.44</b>

### Additional O&M Expenses

44. The Petitioner has also claimed additional O&M expenses over and above the normative O&M expenses, allowable to the generating station, in accordance with the provisions of the 2014 Tariff Regulations. These expenditure heads include Mega Insurance, Expenses for CISF Security, Impact of GST, Impact of Pay Revision, Share of Pension & Gratuity (P&G) and Share of Subsidiary Activities:

		<i>(Rs. In lakh)</i>				
S. No.		2014-15	2015-16	2016-17	2017-18	2018-19
1	Impact of Pay Revision	-	-	4.86	6.12	4.31
2	Impact of GST as "Change in Law"	-	-	-	0.01	0.02
3	Interest & Contribution on Sinking Fund (As per section 40, Part IV of DVC Act)	11.12	11.94	13.71	-	-
4	Share of P&G	5.85	15.02	16.54	37.26	7.13
5	Share of Common Office Expenditure	0.78	0.73	0.62	0.67	0.72
6	Expenses due to Mega insurance, CISF Security & expenditure for Subsidiary activity	19.25	22.48	37.94	54.78	35.39
	<b>Total (1 to 6)</b>	<b>37.00</b>	<b>50.18</b>	<b>73.67</b>	<b>98.84</b>	<b>47.57</b>

45. In order to examine and decide as to whether the claims of the Petitioner for additional O&M expenses are over and above the normative O&M expenses allowed to the generating station, in terms of the 2014 Tariff Regulations, we rely on the duly audited financial statements of the Petitioner. In the Financial statements, all O&M expenses are covered in Notes to Financial Statements i.e., Note No. 29 under Operation & Maintenance and General administration charges and Note No. 27 of the Annual accounts under



Employee Benefit Expenses. Accordingly, we examine the head-wise claims of the Petitioner as detailed in the subsequent paragraphs;

#### ***A. Mega Insurance Expenses***

46. The Petitioner has claimed total of Rs. 169.85 lakh (Rs. 19.25 lakh in 2014-15, Rs. 22.48 lakh in 2015-16, Rs. 37.94 lakh in 2016-17, Rs. 54.78 lakh in 2017-18 and Rs. 35.39 lakh in 2018-19) towards Mega Insurance expenses, as additional O&M expenses for the generating station. In justification of the same, the Petitioner has submitted that the generating station is located in high alert security zone and therefore, the Petitioner has to ensure substantial safeguard measures through Mega Insurance, against damage or destruction of the assets.

47. DVPCA has submitted that the Commission in its earlier orders had disallowed the expenditure on Mega Insurance and the same was to be recovered as part of the normative O&M expenses. It has stated that the actual O&M expenses, including the mega insurance expenses for the period 2014-19, is lower than the normative O&M expenses specified under the 2014 Tariff Regulations, and thus, the normative O&M expenses are sufficient to cover such expenses. Accordingly, DVPCA has stated that the claim of the Petitioner may not be considered separately. In response, the Petitioner has submitted that the subject expenditure is necessitated due to 'substantial increase in the risk profile of power plants' on account of various issues (including lenders covenants), natural calamities, law and order etc, and it protects the customers from any tariff shock, in the event of any substantial loss, arising out of damage or destruction of the power plant. Accordingly, it shall be allowed as an additional pass-through, over and above, the norms. The Petitioner has further submitted, that the Commission in its various orders (i.e. order dated 13.12.2005 in Petition No. 163/2004, order dated 9.7.2013 in Petition No. 269/GT/2012, order dated 29.7.2016 in Petition No. 465/GT/2014, order dated 7.8.2013 in Petition No. 275/GT/2012 and order



dated 29.7.2016 in Petition No. 470/GT/2014) while determining tariff had allowed expenses towards Mega Insurance.

48. The matter has been considered. As regards, the submission of the Petitioner that the Commission had allowed expenses towards Mega insurance to Mejia 1, 2 & 3, CTPS 1, 2 & 3 etc, over and above the O&M expenses norms, it is noticed that the grant of Mega insurance was for the period prior to the 2014–19 tariff period and in exercise of its Power to Relax, but, the same was not allowed for other projects of the Petitioner. It is pertinent to mention that the Commission, while specifying the O&M norms for the period 2014-19, had considered insurance expenses as part of the O&M expense calculations and had factored the same in the said norms. Considering the above, we are not inclined to allow the expenses towards Mega Insurance over and above the O&M expense norms.

***B. Impact of Goods and Service Tax (GST)***

49. The Petitioner has claimed additional O&M expenses of Rs. 0.01 lakh for 2017-18 and Rs. 0.02 lakh for 2018-19 as impact of Goods and Service Tax (GST), including the apportioned impact with regard to DVC Head Quarters, during the period 2014-19. DVPCA has submitted that the Petitioner's claim is extraneous to the provisions of 2014 Tariff Regulations and various orders of the Commission. The Petitioner in its rejoinder has submitted that the Commission in order dated 14.3.2018 in Petition No. 13/SM/2017 and order dated 17.12.2018 in Petition No. 01/SM/2018 had considered the implementation of GST as 'change in law'.

50. The submissions have been considered. It is observed that the Commission while specifying the O&M expense norms for the period 2014-19 had considered taxes to form part of the O&M expense calculations and accordingly, had factored the same in the said norms. This is evident from paragraph 49.6 of the SOR (Statement of Objects and Reasons) issued with the 2014 Tariff Regulations, which is extracted hereunder:



*“49.6 With regards to suggestion received on other taxes to be allowed, the Commission while approving the norms of O&M expenses has considered the taxes as part of O&M expenses while working out the norms and therefore the same has already been factored in...”*

51. Further, the escalation rates considered in the O&M expense norms is only after accounting for the variations during the past five years of the 2014-19 tariff period, which in our view, takes care of any variation in taxes also. It is pertinent to mention that in case of reduction of taxes or duties; no reimbursement is ordered. In this background, we find no reason to grant additional O&M expenses towards impact of GST.

### **C. CISF Security Expenses**

52. The Petitioner has claimed total Rs. 157.09 lakh (Rs. 17.01 lakh in 2014-15, Rs. 19.75 lakh in 2015-16, Rs. 35.65 lakh in 2016-17, Rs. 51.57 lakh in 2017-18 and Rs. 33.11 lakh in 2018-19) towards CISF security expenses, as additional O&M expenses for the generating station. In justification of the same, the Petitioner has made the following submissions:

- (a) The generating station is located in high alert security zone and any untoward situation arising due to the terrorist attack or theft, may cause loss of property and prolonged interruption of generation. The concerned Ministry, from time to time has directed the Petitioner, to take appropriate security arrangements at hydro generating stations, dams etc. and to strengthen the physical security of various generating stations and tighten personal security.
- (b) The Ministry of Home Affairs, GOI, had granted approval for creation of additional security personnel posts to be stationed at the generating station. Thus, accordingly, the Petitioner has deployed CISF personnel in its plants, to ensure adequate security at the plants, as well as to comply with the directives, on security measures. Accordingly, the Petitioner has been incurring expenses towards CISF security for deployment of CISF personnel and associated CISF activities.
- (c) The expenses for CISF Security for the project have been booked in the annual accounts in a consolidated manner. Therefore, the accounted CISF Security expenses for the project for the 2014-19 period has been apportioned among Unit- 1 to 8 of the projects, based on the installed capacity of the units. Accordingly, the apportioned CISF Security expenses for Units- 1 to 3 (the generating station) has been claimed.
- (d) The Commission had allowed the CISF expenses in case of this generating



station *vide* order dated 9.7.2013 in Petition No. 269/GT/2012 and order dated 29.7.2016 in Petition No. 465/GT/2014 and for Chandrapura TPS (Units 1 to 3) *vide* dated 7.8.2013 in Petition No. 275/GT/2012 and order dated 29.7.2016 In Petition No. 470/GT/2014. Accordingly, the Commission may allow the CISF expenses as incurred by and apportioned to the generating station during the 2014-19 tariff period to be recovered in full, in exercise of the 'Power to Relax' under the 2014 Tariff Regulations, similar to the Commission's treatment in the aforesaid orders.

53. DVPCA has submitted that the actual O&M expenses, including the security expenses, for the period 2014-19 have been lower than the normative O&M expenses specified under the 2014 Tariff Regulations. It has further submitted that the provisions of the 2014 Tariff Regulations, does not allow security expenses over and above the O & M norms. Accordingly, the claim may not be allowed separately.

54. The matter has been considered. As regards the submission of the Petitioner that the Commission had allowed expenses towards CISF security *vide* its order dated 29.7.2016 in Petition No. 465/GT/2014 and order dated 29.7.2016 in Petition No. 470/GT/2014, it is observed that the CISF expenses, over and above the O&M expenses norms was allowed only for Mejia Therma Power Station (Units 1-3) and Chandrapura Thermal Power Station (Units-1 to 3) projects of the Petitioner during the period 2009-14 in exercise of its Power to Relax, but was not allowed for other projects of the Petitioner. Further, the Commission while specifying the O&M expense norms for the period 2014-19, had considered security expenses for the generating station, as part of the O&M expenses and had factored the same in the said norms. Considering the above, we do not find any reason to allow additional O&M expenses towards CISF security.

#### ***D. Share of Subsidiary Activities***

55. The Petitioner has claimed total amount for Rs. 11.02 lakh (Rs. 2.24 lakh in 2014-15, Rs. 2.74 lakh in 2015-16, Rs. 2.28 lakh in 2016-17, Rs. 2.20 lakh in 2017-18 and Rs. 1.55 lakh in 2018-19) towards 'Share of Subsidiary activities' as additional O&M expenses. In justification of the same, the Petitioner has submitted that it has been undertaking various



subsidiary activities in terms of Section 12 of the DVC Act, 1948. It has also submitted that in terms APTEL judgment dated 23.11.2007 in Appeal No. 273 of 2006 and batch, the expenses with regard to subsidiary activities, are to be allowed as a pass-through element, in tariff. It has submitted that the APTEL's judgment was affirmed by the Hon'ble Supreme Court vide in its judgment dated 23.7.2018 in C.A No. 971-973 of 2008 along with C.A Nos. 4289 of 2008 (BSAL v DVC) [(2018) 8 SCC 281]. The Petitioner has further stated that the expenses toward share of subsidiary activities was allowed in case of this generating stations by Commission's order dated 9.7.2013 in Petition No.269/GT/2012, Order dated 29.7.2016 in Petition No. 465/GT/2014, Order dated 7.8.2013 in Petition No. 275/GT/2012 and order dated 29.7.2016 in Petition No. 470/GT/2014, in relaxation of the provisions of the Tariff Regulations. Accordingly, the Petitioner has prayed that the Commission may allow the expenses toward share of subsidiary activities, as incurred and apportioned to the generating station during the period 2014-19 for recovery in full, in exercise of the power to relax' under the 2014 Tariff Regulations.

56. DVPCA has submitted that the Petitioner has also claimed expenses towards subsidiary activities including additional capital, O&M, Return on Equity, Interest on loan and Depreciation. It has submitted that the contribution to subsidiary fund is not allowable as the Return on Equity, Interest on loan and Depreciation, on common assets, have been claimed separately. DVPCA has further submitted that the Commission had dealt with the issue of expenditure of subsidiary activities, while framing the 2014 Tariff Regulations and had specifically disallowed such expenses to be charged as additional O&M expenses, vide order dated 31.8.2016 in Petition No. 347/GT/2014. It has stated that the actual O&M expenses including the share of subsidiary expenses are lower than the normative O&M expenses and thus, there is no requirement of allowing the share of subsidiary expenses additionally.



57. In response, the Petitioner has clarified as under:

(a) DVC has been undertaking multifarious functions in the Damodar Valley area in terms of Section 12 of the DVC Act, 1948 with the obligation to undertake development of Damodar Valley, which falls in the provinces of West Bengal and Jharkhand. The activities of DVC are not restricted to generation and sale/supply of electricity. The functions of the DVC include promotion and operation of schemes for irrigation, water supply and drainage, flood control and improvement of flow conditions in the Hooghly River, navigation in the Damodar River and its tributaries and channels, afforestation and control of soil erosion and promotion of public health and agricultural, industrial, economic and general well-being in the Damodar Valley under its areas of operation. Thus, DVC is engaged in number of activities which are not commercial in nature and where no significant revenue accrues to DVC.

(b) DVC cannot generate required revenue from the users of service in regard to schemes such as drainage, flood control, improvement in the flow conditions, navigation, afforestation and control of soil erosion or the promotion of public health and general well-being in the Damodar Valley. The main revenue earning activity performed by DVC is generation and sale of power. DVC is undertaking various activities in a comprehensive manner for the betterment of Damodar Valley and using the revenues earned from various sources including generation and sale of electricity for the above varied purposes for which DVC has been established. In the facts and circumstances mentioned herein above, DVC occupies a special position.

(c) The activities of DVC are akin to the activities undertaken by the Governments, Central, State or Municipalities. Therefore, it is critical that the expenses incurred by DVC in undertaking the various subsidiary activities be recovered in suitable manner so as to not create financial burden on DVC.

(d) Section 32 of the DVC Act 1948 allows DVC to incur expenditure on activities other than power, irrigation and flood control. The APTEL's judgment dated 23.11.2007 in Appeal No. 271, 272, 273 and 275 of 2006, had allowed the recovery of these expenses through tariff. The said judgment was upheld by the Hon'ble Supreme Court vide order dated 23.7.2018 in Bhaskar Shraichi Alloys Ltd. vs. Damodar Valley Corporation (2018) 8 SCC 281, whereupon, the Hon'ble Supreme Court has reiterated the fact that the other activities undertaken by DVC are statutory in nature and provided for recovery of related expenses.

58. The submissions have been considered. The expenses of subsidiary activities include multipurpose dams and other heads. In this regard, the Regulation 53 of the 2014 Tariff Regulations provides as under:

*"53. Special Provisions relating to Damodar Valley Corporation:*

*(1) Subject to clause (2), this regulation shall apply to determination of tariff of the projects owned by Damodar Valley Corporation (DVC).*



(2) *The following special provisions shall apply for determination of tariff of the projects owned by DVC:*

(i) **Capital Cost:** *The expenditure allocated to the object 'power', in terms of sections 32 and 33 of the Damodar Valley Corporation Act, 1948, to the extent of its apportionment to generation and inter-state transmission, shall form the basis of capital cost for the purpose of determination of tariff:*

*Provided that the capital expenditure incurred on head office, regional offices, administrative and technical centers of DVC, after due prudence check, shall also form part of the capital cost.*

xxxx

(iv) **Funds under section 40 of the Damodar Valley Corporation Act, 1948:** *The Fund(s) established in terms of section 40 of the Damodar Valley Corporation Act, 1948 shall be considered as items of expenditure to be recovered through tariff.*

(3) *The provisions in clause (2) of this regulation shall be subject to the decision of the Hon'ble Supreme Court in Civil Appeal No 4289 of 2008 and other related appeals pending in the Hon'ble Court and shall stand modified to the extent they are inconsistent with the decision.*

59. It is noticed that the Commission in its various tariff orders of the Petitioner for the period 2014-19 has observed that as per Statement of Objects and Reasons to the 2014 Tariff Regulations, the site specific norms in case of thermal generating stations may not serve much purpose as there is a set of advantages and disadvantages associated with every site, which average out, and the proposed norms are also based on multiple stations with wide geographical spread and therefore, such aspects are already factored in the norms and accordingly, the additional O&M expenses claimed by the Petitioner, including share of subsidiary activities was not allowed. In this regard the relevant sections of DVC Act 1948 are as follows:

*“32. Expenditure on objects other than irrigation, power and flood control: The Corporation shall have power to spend such sums as it thinks fit on objects authorised under this Act other than irrigation, power and flood control and such sums shall be treated as common expenditure payable out of the Fund of the Corporation before allocation under Section 33.*

*33. Allocation of expenditure chargeable to project on main objects: The total capital expenditure chargeable to a project shall be allocated between the three main objects, namely, irrigation, power and flood control as follows, namely:*

- 1) expenditure solely attributable to any of these objects, including a proportionate share of overhead and general charges, shall be charged to that object, and*
- 2) expenditure common to two or more of the said objects, including a proportionate share of overhead and general charges shall be allocated to each of such objects in proportion to the expenditure which, according to the estimate of the Corporation, would have been incurred in constructing a separate structure solely for that object,*



less any amount determined under clause (1) in respect of that object.

**37. Disposal of profits and deficits. —**

(1) Subject to the provisions of sub-section (2) of section 40, the net profit, if any, attributable to each of the three main objects, namely, irrigation, power and flood control, shall be credited to the participating Governments in proportion to their respective shares in the total capital cost attributed to that object.

(2) The net deficit, if any, in respect of any of the objects shall be made good by the Governments concerned in the proportion specified in sub-section (1):

Provided that the net deficit in respect of flood control shall be made good entirely by the Government of West Bengal and the Central Government shall have no share in such deficit.”

60. It is noticed that APTEL vide its judgement dated 23.11.2007 had observed that the expenditure incurred by the Petitioner, on objects other than irrigation, power and flood control, are non-commercial in nature and accrue little or no revenue and is not likely to subserve the objectives of Section 41 and 51 of the Act and therefore, can be allocated to these three heads as per section 32 and 33 of DVC Act, 1948 and the expenditure so allocated to power object, should be allowed to be recovered through the electricity tariff. Subsequently, the Hon'ble Supreme Court vide its judgment dated 23.7.2018 in Civil Appeal No. 4289 of 2008 and batch thereof, upheld the decision of APTEL as under:

*“55. In so far as the issue of allowance of cost relating to ‘other activities’ of the Corporation to be recovered through tariff on electricity is concerned, we have taken note of the objection(s) raised in this regard which in sum and substance is that Sections 32 and 33 of the Act of 1948 are in direct conflict with Sections 41 and 51 of the 2003 Act and, therefore, recovery of cost incurred in “other works” undertaken by the Corporation through power tariff is wholly untenable. Apart from reiterating the basis on which we have thought it proper to affirm the findings of the learned Appellate Tribunal on the purport and scope of the fourth proviso to Section 14 of the 2003 Act and the continued operation of the provisions of the Act of 1948 which are not inconsistent with the provisions of the 2003 Act, we have also taken note of the specific provisions contained in Sections 41 and 51 of the 2003 Act which, inter alia, require maintenance of separate accounts of the other business undertaken by transmission/distribution licensees so as to ensure that the returns from the transmission/distribution business of electricity do not subsidize any other such business. Not only Sections 41 and 51 of the 2003 Act contemplate prior approval of the Appropriate Commission before a licensee can engage in any other business other than that of a licensee under the 2003 Act, what is contemplated by the aforesaid provisions of the 2003 Act is some return or earning of revenue from such business. In the instant case, the “other activities” of the Corporation are not optional as contemplated under Sections 41/51 of the 2003 Act but are mandatorily cast by the statute i.e. Act of 1948 which, being in the nature of socially beneficial measures, per se, do not entail earning of any revenue so as to require maintenance of separate accounts. The allowance of recovery of cost incurred in connection with “other activities” of the Corporation from the common fund generated by tariff chargeable from the consumers/customers of electricity as contemplated by the provisions of the Act of 1948, therefore, do not collide or is, in any manner, inconsistent*



61. Accordingly, the expenses of 'Other activities' as claimed by the Petitioner during the period 2014-19 is allowed.

**Impact of Pay Revision and Share of P&G contribution**

62. The Petitioner has claimed additional expenses towards impact of Pay Revision on account of 7th Central Pay Commission and Share of Pension & Gratuity (P&G) contribution, over and above, the normative O&M expenses allowable to the generating station.

63. It is noticed that the Petitioner, in its tariff petitions for trueing-up up of tariff, for the period 2009-14, had made additional claims towards P&G liability, based on actuarial valuation. This prayer was, however, rejected by the Commission by its various orders, on the ground that the P&G liability, formed part of the O&M expense norms, specified under the 2009 Tariff Regulations. Aggrieved by this decision, the Petitioner filed Appeal No.268-275 of 2016 before APTEL and the same is pending. The Petitioner, as made similar prayers in tariff petitions for the period 2014-19, which was also rejected by the Commission, on the ground that the Petitioner's contribution to P&G fund, is required to be met through the normative O&M expenses, allowed to the generating stations. However, the Commission in order dated 20.9.2016 in PetitionNo.353/GT/2014 (approval of tariff for Panchet Hydel Power Station, Units-I &II for the period 2014-19), had granted liberty to the Petitioner to claim the said relief through a separate application along with all relevant details, so that a holistic view can be taken inthe matter, in accordance with law. Accordingly, the Petitioner had filed Petition No.197/MP/2016, wherein P&G contribution of Rs.3228.86 crore and impact of pay revision from January 2016 as Rs.420.27 crore for the period 2014–19 was claimed over and above the normative O&M expenses specified under Regulation 29 of the 2014 Tariff Regulations. The Commission, *vide* its order dated 4.9.2019, while holding that the said petition was maintainable, disposed of the same as under:



*“25.....The employee expenses, in general, form a considerable part of O&M expenses and includes all types of employee related expenses like Salary, contribution to CPF, gratuity, pension, etc., However, the submission of the Petitioner that no part of P&G contribution related to power business were factored in the O&M expenses during the base years cannot be appreciated in the absence of any supporting details/data being furnished by the Petitioner. As stated, the normative O&M expenses were specified under Regulation 29 of the 2014 Tariff Regulations after giving due consideration of the requirements of various generating companies. The Petitioner DVC has argued that in so far as the liability of pension for its employees is concerned, it is unique and different from those prevalent in other central generating stations regulated by this Commission since the revision of pension from time to time, is based on the decision of the Central Govt. However, the information/details available on record do not support the aforesaid submission of the Petitioner that it incurs extra expenditure on terminal benefits to the employees over and above the normative O&M expenses under the 2014 Tariff Regulations. In the above background and in the absence of any supporting details/data, the prayer of the Petitioner cannot be granted in this order. However, the Petitioner is at liberty to claim the said relief with all relevant information/ documents including the (a) actuarial valuation; (b) actual data duly audited and certified by the auditor and (c) annual accounts of the pension fund, at the time of truing up of tariff in terms of Regulation 8 of the 2014 Tariff Regulations*

26.xxxxx

*27. We notice that subsequently, the Petitioner has implemented the recommendations of the 7th Pay Commission for its employees with effect from 1.1.2016. In view of this, the impact of pay revision, after implementation of the 7th Pay Commission, is required to be examined on actual basis, on prudence check of the information/ details to be submitted by the Petitioner. Accordingly, we direct the Petitioner to furnish the actual impact of pay revision based on the recommendations of the 7th CPC, effective from 1.1.2016, along with details of HRA and transport allowance from July, 2017. The aforesaid details/information shall be furnished by the Petitioner at the time of truing up of tariff and the same will be considered in accordance with law.”*

64. Based on the above, the Petitioner, in respect of its petitions for truing-up of tariff for the period 2014-19, has submitted its claim towards the share of P&G contribution and towards impact of pay revision, as additional O&M expenses, which are examined below:

**(i) Impact of Pay revision**

65. The Petitioner has claimed total amount of Rs. 15.28 lakh (Rs. 4.86 lakh during 2016-17, Rs. 6.12 lakh during 2017-18 and Rs. 4.31 lakh during 2018-19) as impact of Pay revision due to recommendations of 7<sup>th</sup> Pay Commission. Further, the Petitioner has submitted that the Commission, while specifying the 2014 Tariff Regulations, has in the Statement of Objects and Reasons (SOR) to the said regulations, observed that the increase in employee expenses on account of pay revision shall be considered appropriately on case-to-case basis, balancing the interest of generating stations and



consumers.

66. The Commission *vide* ROP of the hearing dated 25.5.2021, directed the Petitioner to furnish the following information:

***“True-up for the 2014-19 tariff period***

*“i. Break-up of the actual O&M expenses of the generating station under various subheads (as per Annexure-A enclosed) after including the pay revision impact (employees, CISF and Corporate Centre) and wage revision impact (minimum wages), if applicable. (in both MS Excel and PDF format).*

*ii. Break-up of the actual O&M expenses of Corporate Centre/other offices including pay revision impact (as per Annexure-B enclosed) for the generating station along with the allocation of the total O&M expenses to the various generating stations under construction, operational stations and any other offices/business activity, along with basis of allocating such expenditure (in both MS Excel and PDF format).*

*iii. Breakup of the pay revision impact claimed in respect of employees of the Petitioner Company, Security personnel stationed at the generating station and Corporate Centre/other offices employee cost allocated to the generating station. (as per Annexure-C enclosed in both MS Excel and PDF format).”*

67. In compliance to the aforesaid directions, the Petitioner *vide* affidavit dated 19.10.2021, has furnished the information and submitted that additional O&M expenses including P&G liability claimed as elements of Part B of the total annual fixed charges and the same were not considered, while preparing the data as per Annexure-A, i.e. in pay revision. Accordingly, the total O&M expenses claimed as per Annexure-A, for the period 2014-19 is as under:

***(Rs. in lakh)***

<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
9872.33	11315.38	13178.98	15044.52	12421.31

68. The Petitioner has further submitted that in line with the methodology adopted by the Commission, while approving the Common office expenditure for the period 2014-19, in order dated 27.9.2016 in Petition No.350/GT/2014, the actual O&M expenses of Corporate Centre/ other offices has already been apportioned between the O&M expenses of DVC's Transmission business & Generating stations and is further apportioned to O&M expenses of various generating stations in operation. The O&M expenses of Corporate Centre / other offices are also apportioned in above manner as considered in Annexure-A of the Petition.



The Petitioner has also stated that it has claimed total Security expenses including the impact of pay revision of the security personnel, however, as per direction of the Commission vide ROP for hearing dated 25.5.2021, the breakup of the impact of pay revision claimed in respect of the Security personnel stationed at the generating station and the apportioned cost of security expenses at Corporate Centre / other offices allocated to the generating station, as per Annexure-C to the Petition. The Petitioner has further submitted that due to frequent transfer of employees from one generation station to other generating station / T&D wing, on same post or to the higher post, due to promotion, during the period from 1.1.2016 to 31.3.2019 and due to the delayed implementation of pay revision in DVC, it is difficult to find out the station-wise impact of pay revision. Accordingly, the impact of pay revision of DVC employees has been determined in totality towards Power business and thereafter apportioned to transmission and generation based on the capital cost and further apportioned to various generators, based on their installed capacity, as per methodology adopted by the Commission, while approving the common office expenditure vide order dated 20.9.2016 in Petition No. 352/GT/2014. DVPCA has submitted that the impact of pay revision claimed by the Petitioner shall not be allowed as the same is to be considered within the normative O&M expenses and also actual O&M expenses, including pay revision expenses, are well within the limit of normative O&M expenses. Further, DVPCA has compared the overall claimed O&M expenses by the Petitioner, in its various generation tariff petitions with the overall actual O&M expenses and submitted that the actual O&M expenses are lower than the normative O&M expenses and thus, there is no requirement of allowing pay revision expenses additionally.

69. The Petitioner, in its rejoinder, has reiterated the submissions and has stated that the recovery of impact of pay revision is to be considered and allowed in line with tariff principles enshrined under Section 61(d) of the Act. It has also mentioned that the norms for O&M expenses under the 2014 Tariff Regulations, were determined on the basis of the



actual O&M expenses for the years 2008-09 to 2012-13 and the 2014 Tariff Regulations, were notified by the Commission on 21.2.2014 i.e., prior to the implementation of the pay revision (7th CPC). Accordingly, it has submitted that while arriving at the O&M norms for the period 2014-19, the Commission had no occasion to consider the impact of pay revision w.e.f. 1.1.2016. The Petitioner has further submitted that the Commission while specifying the 2014 Tariff Regulations, was of the view that the increase in employee expenses on account of pay revision, in case of central generating stations and private generating stations are to be considered appropriately and therefore, the Commission decided that the said costs shall be examined on case-to-case basis so that the interest of generating stations and consumers remains balanced. Accordingly, the Commission vide its order dated 4.9.2019 in Petition No. 197/MP/2016 had directed the Petitioner to furnish the actual impact of pay revision at the time of truing up of tariff.

**(ii) Share of P&G Contribution**

70. The Petitioner has claimed share of P&G contribution for the period 2014-19 as under:

<i>(Rs. in lakh)</i>				
<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
5.85	15.02	16.54	37.26	7.13

71. The Petitioner, in terms of the directions contained in order dated 4.9.2019 in Petition No.197/MP/2016, has furnished the following data, duly certified by auditor:

- (a) actuarial valuation of pension and gratuity;*
- (b) actual data as per books of accounts on terminal benefits; and*
- (c) annual accounts of pension funds for the period 2014-19.*

72. The Petitioner has further submitted that as per recommendations of the 7<sup>th</sup> Pay Commission, the Cabinet on 12.9.2017, had cleared the Payment of Gratuity (Amendment Bill 2017), wherein, the upper ceiling of gratuity has been enhanced from the present value of Rs.10 lakh to Rs.20 lakh, effective from 1.1.2016. It has submitted, that since the impact due to enhancement of upper ceiling of gratuity has not been considered / factored by the



Commission, while fixing the normative O&M expenses for the period 2014-19, the Commission may consider the impact while considering the P&G contribution for the period 2014-19.

73. DVPCA has submitted that the Petitioner has claimed normative O&M expenses, in accordance with the 2014 Tariff Regulations and the same is being allowed, the additional expenses claimed by the Petitioner, over and above the normative O&M expenses, under the heads, P&G, Pay revision, Ash Evacuation expenses, CISF Security expenses, Expenditure for subsidiary activities, Mega Insurance expenses, impact of GST on O&M may be disallowed.

74. In response, the Petitioner in its response has clarified as follows:

- (a) DVC as a statutory body is required to maintain appropriate scheme for meeting the Terminal Benefits of the employees i.e., Pension (wherever the appointment of employees is on pension basis), Gratuity, Contributory Provident Fund i.e., CPF (wherever the employment of the employees is on Provident Fund contribution basis instead of pension). The CPF scheme being an alternative to the pension scheme, is for those who have not opted or otherwise not eligible for pension scheme and DVC makes contribution to the CPF. In addition to the above, there is also a General Provident Fund (GPF), wherein, fund is contributed only by the employees but not by DVC. Thus, Provident Fund schemes are of two types, namely, the CPF and the GPF.
- (b) The article 16 and 17 of Employees Provident Funds and Miscellaneous Provisions Act, 1952 provides for administration of Provident Fund Scheme. Accordingly, DVC is maintaining Provident Fund, both CPF and GPF, in respect of each of the employees with individual account of the employees duly reflecting (a) the contribution apportioned to such employees or the contribution made by DVC, wherever applicable, (b) apportionment to such employees, apportionment of the interest earned on the money invested from the Provident Fund Scheme in approved securities and (c) contribution made by the employees to the GPF. Such contributions are maintained in a separate account of each of the employees as per the applicable scheme.
- (c) The Pension & Gratuity Fund accounts are maintained separately by the Trust. The contributions to the Pension and Gratuity Trust are made based on actuarial valuation undertaken from time to time by actuaries appointed for the purpose. The actuarial valuation is in regard to all the employees and workmen of DVC.
- (d) No part of the amount related to Pension or Gratuity Fund contribution is used by DVC for its business activities in any of the years commencing from 01.4.2006 i.e. for the period in which the tariff is being determined by this Hon'ble Commission, upon coming into force of the Electricity Act, 2003. The contribution to the Pension & Gratuity Fund made by DVC is considered in the



audited accounts of the DVC for the respective financial years.

- (e) In regard to the Provident Fund, the amount contributed is maintained by DVC but is dedicated to the benefit of DVC's employees and workmen. As in the case of Pension & Gratuity Fund, no part of the Provident Fund amount is to the account of DVC or to be utilised for the business activities of DVC. In line with the Employees Provident Funds and Miscellaneous Act, 1952, DVC is investing CPF and GPF amount in approved securities and the interest thereof is apportioned to employees. This has been reflected in Schedule 27 with two corresponding entries, namely, interest payable and interest recoverable on investment. DVC is required to duly account for all such interest.
- (f) The amount contributed by DVC to the Pension & Gratuity Fund is invested by the Trust in the name of the trust and not in the name of DVC. The interest accrued on this investment is considered as the income of the Trust. No part of the interest income is realized by DVC or appropriated by DVC in any manner and nowhere it is reflected in the audited accounts of DVC.
- (g) In view of the above, there is a difference between the Pension & Gratuity Contribution of DVC as compared to the Contributory Provident Fund.

75. The Petitioner also submitted that the O&M expenses inclusive of employees cost and Contributory Provident Fund will not cover the revenue requirements of the DVC on account of the P&G contribution on following grounds:

- (a) The Contributory Provident Fund is in respect of the actual amount of contribution during the relevant year, and does not involve adjustments for that year in future years, however, the Pension and Gratuity Contribution is to be constantly adjusted for past period of services also and is dependent on actuary valuation to be undertaken from time to time. The period of past services rendered by the employees of DVC including the deficit amount of contribution in the past in order to meet the pension payment to the employees upon their retirement need to be necessarily considered. Similarly, in case the contribution already made is in excess of the requirement, suitable adjustment is made through actuary valuation. Thus, the contribution to P&G cannot be restricted to current year.
- (b) The amount of Pension & Gratuity contribution in the case of DVC is significantly more in the recent past i.e., from 1.1.2006 onwards, on account of the following factors:
  - (i) Earlier, as there was no fund maintained for receiving the Pension and Gratuity Contribution, the same was being discharged by DVC on revenue basis pay as you go as in the case of any other Government Department. However, as per the mandate of the Comptroller and Auditor General and in accordance with the directions given by the Central Government, now, DVC has to maintain the Pension and Gratuity Fund. Accordingly, the contributions are being made not only for the present year working of the employees but also for all the past years of services including for persons who have retired from DVC in the past;
  - (ii) There has been a substantial increase in Pension and Gratuity payment to the employees on account of wage revision pursuant to the decision taken by the Central Government, firstly, in the year 2006 and secondly in the year 2016. These higher contributions to be made are not confined to the current year but also relates to the payment for the past services including the



services rendered by the retired employees;

(iii) The liability under Contributory Provident Fund ceases with the year in which it is contributed. There is no actuary valuation or adjustment for upward revision on account of any wage revision etc. however, the pension payment is payable by DVC after the retirement of the employees on a continuous basis along with the revision to the pension from time to time as per the decision of the Central Government applicable to all retired employees; further the pension payment liability continues even after the death of the employee. The family pension needs to be given to the widows and other eligible members under the pension scheme.

(c) Thus, the matter relating to Pension & Gratuity Contribution and other aspects of Terminal Benefit liabilities to the employees including the increase in such Pension and Gratuity contribution on account of actuarial valuation undertaken from time to time cannot be inter-mixed with the normative O&M expenditure provided for in the Tariff Regulations.

(d) The normative O&M expenses determined by the Commission is based on the normalized actual quantum of expenditure incurred by the Utilities in the past period and escalation of thereof on account of inflation and other factors. Such normative expenditure would consider matters such as contribution to the Provident Fund etc. where the amount of contribution is duly factored as a percentage of the salaries and wages paid to the employees and is adopted by Central Power Sector Utilities who do not maintain a Pension scheme such as NTPC, NHPC etc, however, it cannot be ipso facto adopted for DVC, wherein, some of its employees are under Pension Scheme, as admissible to the Government departments.

(e) The contribution which DVC has to make towards the Pension and Gratuity Fund from time to time based on the actuarial valuation including for increase in the Pension and Gratuity Contribution related to the past period on account of pay revision, is not factored into in the determination of the employees cost as part of the normative O&M cost decided by this Hon'ble Commission from time to time. These are also not part of any specific tariff elements given in the Regulation 21 and 14 of the 2009 and 2014 Tariff Regulations, respectively.

(f) APTEL and the Hon'ble Supreme Court in the orders dated 23.11.2007 and 23.7.2018 respectively have directed in favour of full recovery of the P&G contribution. Further, the Commission *vide* order dated 04.09.2019 in Petition no. 197/MP/2016 granted liberty to DVC to claim the Pension and Gratuity contribution along with relevant details at the time of truing up.

(g) The principle for apportionment of the contribution towards Pension & Gratuity fund to the different generating stations and T&D system of DVC, based on capital cost and installed capacity has been already approved by the Commission for the 2006-09 period and the same principle has been followed by DVC in its true-up petitions for the period 2014-19.

(h) As regards linking the recovery of Pension & Gratuity contribution to Plant Availability Factor (PAF), the APTEL in its judgment dated 23.11.2007 had directed for recovery of the entire amount of the Pension & Gratuity contribution from the consumers through tariff. The said judgment of APTEL dated 23.11.2007 was upheld by the Hon'ble Supreme Court *vide* its order dated 23.7.2018. The State Commissions of West Bengal and Jharkhand in their different orders, had also allowed the full recovery of the Pension & Gratuity contribution of the Petitioner.

(i) The Respondent's contentions may be rejected and the amount claimed towards contribution to Pension & Gratuity for the period 2014-19 may be allowed to be recovered in full, on sharing basis.



## **Analysis and Decision**

76. The submissions have been considered. As regards pay revision, it is noticed that the Petitioner has claimed the impact of pay revision on account of 7<sup>th</sup> Pay Commission. However, in respect of P&G contribution, it is noted that the Petitioner has pleaded for impact of pay revision on P&G, but claimed the actual P&G contribution. It is observed that the normative O&M expenses includes a gratuity and CPF of PSUs. Accordingly, the O&M norms under the regulations, account for gratuity and a part of pension, pertaining to the serving employees of Petitioner. However, the Petitioner has the liability of Pension for retired employees as well. Thus, the actual impact of pension needs to be assessed to examine the additional O&M claim by the Petitioner. It is observed that the Petitioner is maintaining the audited accounts of its entire power vertical, which consists of 15 generating stations, transmission system and distribution system, on consolidated basis. In this regard, the Petitioner has submitted that due to frequent transfer of employees from one generation station to other generating station / T&D wing, on same post, or to the higher post, due to promotion during the period from 1.1.2016 to 31.3.2019, delayed implementation of pay revision etc., the Petitioner has expressed its difficulty to provide the station-wise impact of pay revision separately but determined it in totality for Power business and thereafter, apportioned as per methodology adopted by the Commission, while approving the common office expenditure *vide* order dated 20.9.2016 in Petition No.352/GT/2014.

77. In view of the above, to assess the impact of Pay revision on O&M expenses and share of P&G contribution, it is decided to adopt a holistic approach i.e. to compare the actual normalised O&M expenses of power vertical of the Petitioner, as per audited accounts, with the normative O&M expenses specified under the 2014 Tariff Regulations. In case, the normative O&M expenses are in excess to the actual normalised



O&M expenses associated with power vertical, the additional expenditure claimed by the Petitioner shall not be allowed, and in case of any, under-recovery, to the extent of impact of pay revision and expenses on account of P&G contribution shall be allowed, in relaxation of O&M norms under the 2014 Tariff Regulations.

78. In order to ascertain the justification for additional O&M expenses, over and above the normative O&M expenses allowed, a comparative analysis of the actual O&M expenses, was undertaken, including the additional normalised claims and the normative O&M expenses allowable under the various tariff petitions for truing up filed by the Petitioner. It is observed that during the 2014-19 tariff period, the total normative O&M expenses allowed as per the Tariff Regulations for the various tariff petition (both Generation and Transmission) is Rs.1044745.04 lakh. Further, as per audited financial statements water charges for Rs.38226.00 lakh (in terms of Regulation 29(2) of the 2014 Tariff Regulations) and Ash Evacuation expenses of Rs. 61182.00 lakh (as change in law) has been incurred by the Petitioner, during the 2014-19 tariff period. However, in line with the MoEF&CC notification dated 25.1.2016, the ash transportation charges have been allowed from 26.1.2016 to 31.3.2019 which works out to Rs.39334.64 lakh. Since the Petitioner maintains separate accounts for each generating station and the Petitioner is granted liberty to claim the ash evacuation expenses separately, the total amount allowable to the Petitioner against O&M, Water charges and allowable Ash Evacuation charges is Rs.1122305.68 lakh (Rs.1044745.04 lakh + Rs.38226.00 lakh+Rs.39334.64 lakh) whereas, the actual O&M expenses, as per DVC Financial statements for the period 2014-19 is Rs.1219786.00 lakh (including subsidiary activities), which indicates that the actual O&M expenses exceeds the normative O&M expenses, by Rs.97480.32 lakh. However, we note that the actual O&M expenses of Rs.1219786 lakh also includes Provisions for Loss, Doubtful claims & Advances, Doubtful debts, and Shortage/Obsolescence in stores etc. amounting to Rs.77573 lakh, and Rebates & Discount allowed to consumers for Rs.49937



lakh, out of which rebate of Rs.40820 lakh pertain to firm consumers (breakup submitted by the Petitioner vide ROP dated 22.4.2022). When the actual O&M expenses are normalised, by excluding the provisions amounting to Rs.77573 lakh (being a non-cash expenditure and Rebates & Discounts for Rs.40820 lakh pertaining to firm consumers, as stated above, the actual O&M expenses work out to Rs.1101392.70 lakh (i.e., Rs.1219786 - Rs.77573 - Rs.40820.30 lakh). The computation of the normalised actual O&M expenses is as under:

<i>(Rs. in lakh)</i>						
	2014-15	2015-16	2016-17	2017-18	2018-19	TOTAL
<b>A. ACTUAL O&amp;M AS PER DVC AUDITED FINANCIAL STATEMENTS</b>						
Note No.27-Employee Benefit Expenses-Power Segment	81960.00	96738.00	126691.00	159010.00	109249.00	573648.00
Note No.29-O&M and General Administration Charges-Power Segment	93447.00	117668.00	132286.00	169568.00	133169.00	646138.00
<b>TOTAL (A)</b>	<b>175407.00</b>	<b>214406.00</b>	<b>258977.00</b>	<b>328578.00</b>	<b>242418.00</b>	<b>1219786.00</b>
<b>B. PROVISIONS-NOTE NO 29-POWER SEGMENT</b>						
Provision for Loss on Fixed Assets	446.00	191.00	6544.00	4293.00	0.00	11474.00
Provision for Doubtful Claims and Advances	4586.00	1308.00	0.00	0.00	0.00	5894.00
Provision for Doubtful Debts	205.00	733.00	9126.00	41657.00	8299.00	60020.00
Provision for Shortage /Obsolescence in Stores	12.00	8.00	13.00	128.00	24.00	185.00
<b>TOTAL (B)</b>	<b>5249.00</b>	<b>2240.00</b>	<b>15683.00</b>	<b>46078.00</b>	<b>8323.00</b>	<b>77573.00</b>
<b>C. REBATE &amp; DISCOUNT ALLOWED TO FIRM CUSTOMERS (as per Petitioner submission)</b>						
Rebate & Discount Allowed	3821.32	8983.93	8766.85	8393.73	10854.47	40820.30
<b>TOTAL (C)</b>	<b>3821.32</b>	<b>8983.93</b>	<b>8766.85</b>	<b>8393.73</b>	<b>10854.47</b>	<b>40820.30</b>
<b>NORMALISED ACTUAL O&amp;M AS PER AUDITED STATEMENT OF ACCOUNTS (A-B-C):-</b>	<b>166336.68</b>	<b>203182.07</b>	<b>234527.15</b>	<b>274106.27</b>	<b>223240.53</b>	<b>1101392.70</b>

79. A comparison of the normative O&M expenses (including allowable water charges) with the normalized actual O&M expenses in respect of the various truing-up of generation and transmission tariff petitions, filed by the Petitioner, for the period 2014-19 and those allowed for the period 2014-19 (in this petition) is as under:



(Rs. in lakh)

Petition No.	Generating Station / Transmission Petitions	Normative O&M expenses claimed
574/GT/2020	Bokaro Thermal Power Station-A	20741.38
569/GT/2020	Bokaro Thermal Power Station-1-3	64499.08
565/GT/2020	Chandrapur Thermal Power Station 1-3	56979.30
570/GT/2020	Chandrapur Thermal Power Station 7-8	67755.00
573/GT/2020	Durgapur Steel Thermal Power Station 1-2	90740.00
567/GT/2020	Durgapur Steel Thermal Power Station 3-4	38527.32
564/GT/2020	Koderma Thermal Power Station 1-2	89118.08
577/GT/2020	Mejia Thermal Power Station 1-3	85371.30
205/GT/2020	Mejia Thermal Power Station 4	28457.10
571/GT/2020	Mejia Thermal Power Station 5-6	67755.00
568/GT/2020	Mejia Thermal Power Station 7-8	90740.00
575/GT/2020	Raghunathpur Thermal Power Station	62340.00
578/GT/2020	Maithon Hydel Station 1-3	10931.64
566/GT/2020	Panchet Hydel Station 1-2	8830.12
572/GT/2020	Tilaiya Hydel Station 1-2	3991.24
713/TT/2020	New elements of Transmission and Distribution (T&D) System	1154.65
466/TT/2020	Non-ISTS 400 kV Transmission Lines of Transmission and Distribution (T&D) System	1724.30
482/TT/2020	Existing Transmission & Distribution (T&D) system (allowed)	255089.53
<b>(A) Total Normative O&amp;M Expenses allowable</b>		<b>1044745.04</b>
(B) Water charges as per DVC audited accounts to be considered separately under Regulation 29(2) of 2014 Tariff Regulations		<b>38226.00</b>
(C) Ash Evacuation expenses allowed under change in law (w.e.f. 26.1.2016 till 31.3.2019)		<b>39334.64</b>
<b>(D) TOTAL (A+B+C):</b>		<b>1122305.68</b>
<b>(E) Normalized actual O&amp;M expenses as per audited financial statement of accounts</b>		<b>1101392.70</b>
<b>(F) Excess of normative O&amp;M expenses, Water Charges &amp; Ash Evacuation charges over the normalized actual O&amp;M Expenses (D-E):</b>		<b>20912.98</b>

80. It is evident from the above, that the total normative O&M expenses allowable in respect of all the generation and transmission tariff petitions of the Petitioner, for the period 2014-19 is Rs.1044745.04 lakh, in terms of the 2014 Tariff Regulations. Also, considering the actual water charges of Rs.38226.00 lakh and Ash Evacuation Charges w.e.f. 26.1.2016 of Rs. 39334.64 lakh, the total works out to Rs.1122305.68 lakh, which is higher than the normalised actual O&M expenses of Rs.1101392.70 lakh, as per audited financial statements pertaining to Power segment. Further, as per Regulation 29(2) of the 2014 Tariff Regulations, capital spares are allowable separately. Since the normative O&M expenses



including the actual Water charges and Ash Evacuation charges allowed separately, are in excess of the actual O&M expenses in the case of the Petitioner, we are not inclined to allow the impact of pay revision and the contribution towards P&G, Mega Insurance, CISF expenditure etc., during the period 2014-19, as sought by the Petitioner, in this petition.

### **OTHER ADDITIONAL CLAIMS**

#### **(A) Interest & Contribution on Sinking Fund (As per section 40, Part IV of DVC Act)**

81. The Petitioner has claimed additional expenditure towards Interest & Contribution on Sinking fund as under:

<i>(Rs. in lakh)</i>				
<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
11.12	11.94	13.71	0.00	0.00

82. The Petitioner has allocated sinking fund contribution and interest for 13<sup>th</sup> Series (10.2.2010) 8.95 % DVC Bonds of Rs. 640 crore amongst its generating stations as follows:

<i>(Rs. in lakh)</i>					
	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Total share of Interest & Contribution on Sinking Fund for DVC generating stations	6554.84	7013.43	7504.45	0.00	0.00
TPS	1751.89	1880.57	2159.04	0.00	0.00
CTPS	1084.50	1164.16	1242.56	0.00	0.00
DTPS	973.27	1021.86	719.68	0.00	0.00
MTPS (1-3)	1751.89	1880.57	2159.04	0.00	0.00
MTPS-4	583.96	626.86	719.68	0.00	0.00
MHS	175.74	188.65	216.59	0.00	0.00
PHS	222.46	238.80	274.16	0.00	0.00
<b>Tilaiya Hydel Station</b>	<b>11.12</b>	<b>11.94</b>	<b>13.71</b>	<b>0.00</b>	<b>0.00</b>

83. In justification of the claim, the Petitioner has submitted that APTEL vide its judgment dated 23.11.2007 in Appeal No. 273 of 2006 & batch, had allowed the recovery of sinking funds and this judgment has also been affirmed by the Hon'ble Supreme Court vide its judgement dated 23.7.2018 in Civil Appeal Nos. 971-973 of 2008 & batch matters.

84. DVPCA has also submitted that under the 2014 Tariff Regulations, the Petitioner is allowed all expenses related to energy charges and fixed charges and also allows the funding of approved capital cost and interest/ returns on the debt/ equity components on



actual / normative basis, as the case may be. It has further submitted that the loan repayment is provided through higher depreciation for initial 12 years and interest on working capital is allowed on normative basis. DVPCA has stated that the creation of funds, without any specific purpose, cannot be allowed to be recovered as an expenditure in tariff, even if it is mentioned in DVC Act and the 2014 Tariff Regulations. It also submitted that the Commission may seek details on the purpose of borrowing such funds, when all expenses related to capital funding and working capital funding are allowed. Accordingly, DVPCA has prayed that the claim of the Petitioner may be disallowed. In response, the Petitioner has reiterated the submissions made in the petition. Further, it has also relied upon the APTEL's judgment dated 17.5.2019 in Appeal No.17/2014 & batch (Maithon Alloys Ltd V CERC & Ors) and submitted that, APTEL while rejecting the submissions, observed that there was no double allowance of bonds. The Petitioner also pointed out that the Objector herein has preferred review (Review Petition No. 4 of 2019) against the judgment dated 17.5.2019, before APTEL and the same is pending and since there is no stay of operation of the said order the same is binding on the parties. Accordingly, the Petitioner has prayed that the submissions of DVPCA may be rejected.

85. The matter has been examined. Section 40 of the DVC Act, 1948 provides that the Petitioner shall make provision for depreciation and for reserve and other funds at such rates and on such terms as may be specified by the C&AG in consultation with the Central Government. APTEL in its judgment dated 23.11.2007 in Appeal No.271/ 2006 & batch cases, decided as under:

*“E.15 As regards sinking funds which is established with the approval of Comptroller and Accountant General of India vide letter dated December 29, 1992 under the provision of Section 40 of the DVC Act is to be taken as an item of expenditure to be recovered through tariff,*

86. Regulation 53(2)(iv) of the 2014 Tariff Regulations provides as under:



*(iv) Funds under section 40 of the Damodar Valley Corporation Act, 1948: The Fund(s) established in terms of section 40 of the Damodar Valley Corporation Act, 1948 shall be considered as items of expenditure to be recovered through tariff.*

87. DVPCA has objected to the claim of the Petitioner and has submitted that neither the provisions of the Electricity Act, 2003 nor the 2014 Tariff Regulations sanction the recovery of cost of generation assets twice over, through (a) allowance of Contribution to Sinking Fund; and (b) Depreciation and allowance of Interest on loan, by treating the amount realized through bonds, as normative debt. Per contra, the Petitioner has, however pointed out that in Appeal No.17/2014 (MAL v CERC & ors.) & batch cases, filed by HT consumers before APTEL, similar submissions raised by the appellants therein, were rejected by APTEL vide its judgment dated 17.5.2019. It is noticed from the said judgment dated 17.5.2019 that similar contention of the Objector herein, have been rejected by APTEL vide its judgement dated 17.5.2019 as under:

*“8.5 We have carefully considered the submissions of learned counsel for the Appellants and learned counsel for Respondent Nos.1 & 2 and also took note of the various judgments relied upon by the parties. While the main contentions of the learned counsel for the Appellants are against the allowance of contribution to sinking fund to DVC and its utilisation, on the other hand, learned counsel for the Respondents contend that the Central Commission is allowing the same as per settled position of law and its relevant regulations relating to the subject. Learned counsel for the Appellants contended that this Tribunal did not lay down that DVC could be allowed with both interest on loan as well as contribution to sinking fund which tantamount to a particular cost component being allowed twice to a generating company.*

*8.6. It is relevant to note that as per Section 40 of DVC Act, 1948, DVC is entitled for provision for depreciation, reserve and other fund. This Tribunal in its judgment dated 23.11.2007 in Appeal No.271 of 2006 & batch has held the admissibility of sinking fund in favour of DVC which has also been upheld by the Hon'ble Supreme Court in its judgment dated 23.7.2018 reported as 2018 (8) SCC 281. Regarding the contention of alleged double counting of learned counsel for the Appellant, we find no such duplication in the considerations and findings of the Central Commission.*

*8.7 Further, from the Tariff Regulation of the Central Commission, it is noticed that interest on loan and interest on working capital are distinct elements of the tariff and at no point of time, the repayment of loan capital is considered as a tariff element to be serviced in the tariff. The redemption of bonds from contribution to sinking fund is a special tariff element provided for DVC under Section 40 of the DVC Act, 1948 in addition to tariff elements provided in the Tariff Regulations. This aspect has already been upheld by the Apex court vide its judgment dated 23.7.2018 (stated supra). It is also noted from the tariff regulations that*



depreciation and interest on loan payable are two different aspects while sinking fund contribution is an additional tariff element admissible only to DVC under the DVC Act. We, therefore, find no force in the contentions of the learned counsel for the Appellants that by allowing depreciation, interests on loan and sinking fund altogether, results into double counting and in turn yields into undue burden on consumers.

8.8 In view of above facts, we hold that the Central Commission has passed the impugned order in accordance with settled position of law and its Regulations. Thus, the instant case does not give in any manner rise to substantial question of law requiring our intervention / interference”

88. Though DVPCA has sought review of the said judgment before APTEL, there is no stay of operation of the said judgement. Regulation 53(2)(iv) of the 2014 Tariff Regulations categorically provides that the funds created under Section 40 of the DVC Act, 1948 shall be considered as item of expenditure to be recovered through tariff. It is observed that the sinking funds have been created only for redemption of bonds. Accordingly, the amount claimed by the Petitioner for this generating station is allowed as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
11.12	11.94	13.71	0.00	0.00

**(B) Share of Common Office Expenditure**

89. The Petitioner has submitted that the expenditure pertaining to common offices such as Direction Office, Central Office, Other Offices, Subsidiary activities, IT centre and R&D caters services to all generating stations as well as composite transmission and distribution systems. In this regard, it is noted that the Petitioner vide affidavit dated 9.9.2022 in Petition No. 567/GT/2020 (DTPS 3 & 4) has updated the additional capital expenditure pertaining to common offices. The revised additional capital expenditure claimed by the Petitioner towards various offices under Common offices is summarised as below:

<i>(Rs. in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19
Central Office	50.86	94.73	43.26	1,263.95	393.86
R & D	2.72	38.31	0.00	(-)550.49	0.00
Direction Office	26.85	9.17	68.62	50.07	(-)255.83
Subsidiary Activities	0.20	1.66	7.37	3.29	0.13
IT Cell	37.69	0.00	0.00	0.00	185.62
Other Offices	1.49	30.17	44.63	406.40	62.70
<b>Total</b>	<b>119.82</b>	<b>174.04</b>	<b>163.88</b>	<b>1173.22</b>	<b>386.48</b>



90. The head-wise additional capital expenditure claimed by the Petitioner towards common offices is summarised as below:

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Land and Land Rights	2.72	0.00	0.00	508.33	70.80
Buildings	1.49	38.31	0.00	34.91	130.47
Power House	0.00	0.00	38.84	0.00	5.42
Sub Station equipment	0.00	8.01	1.15	431.94	52.08
Other assets, Office Furniture and Personalcomputer	77.91	128.60	124.77	198.34	29.09
Cyber Security	0.00	0.00	0.00	0.00	97.85
EBA	37.69	0.00	0.00	0.00	0.00
Machinery & equipment	0.00	(-)0.88	(-)0.88	(-)0.01	0.00
Tower Pole & Fixtures	0.00	0.00	0.00	(-)0.28	0.00
Assets Held for Disposal	0.00	0.00	0.00	0.00	0.76
<b>Total</b>	<b>119.82</b>	<b>174.04</b>	<b>163.88</b>	<b>1173.23</b>	<b>386.48</b>

91. The Petitioner has computed the Return on Equity, Interest on Loan and Depreciation on the Common Assets for the period 2014-19 based on the opening capital cost as on 1.4.2014 for different offices and has apportioned them to each generating stations and T&D system in proportion to the capital cost approved as on 31.3.2014. Further, the Petitioner has allocated the cost of common offices among generating stations of the Petitioner on the basis of installed capacity. The annual fixed charges claimed towards assets of common offices are as under:

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Direction Office	146.09	85.91	107.01	128.92	68.70
Subsidiary Activities	113.33	113.94	114.21	114.52	114.92
Other Offices	129.97	132.58	115.82	171.39	207.12
R&D	319.84	315.43	308.45	248.10	190.53
IT	43.87	46.34	44.98	43.46	58.84
Central Office	570.62	562.94	561.83	645.87	771.37
<b>Total</b>	<b>1323.73</b>	<b>1257.14</b>	<b>1252.29</b>	<b>1352.25</b>	<b>1411.48</b>

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Common Office Expenditure apportioned to all generating Stations of DVC	1218.63	1157.33	1152.86	1244.88	1299.41
Common Office Expenditure apportioned to T&D	105.10	99.82	99.43	107.37	112.07
<b>Total</b>	<b>1323.73</b>	<b>1257.14</b>	<b>1252.29</b>	<b>1352.25</b>	<b>1411.48</b>



92. The Petitioner claimed apportioned common office expenses for this generating station are as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
0.78	0.73	0.62	0.67	0.72

93. The matter has been considered. It is observed that the Petitioner's claim for common office expenditure is in line with the Commission's methodology and decision in the previous tariff orders in respect of the generating stations of the Petitioner. Accordingly, in order to work out the common office expenditure to be allowed as a part of trueing-up of tariff, we have examined the additional capital expenditure claimed by the Petitioner, as under:

#### **Land and Land Rights**

94. The Petitioner has claimed an additional capital expenditure of Rs.2.72 lakh in 2014-15 and (-) Rs.550.49 lakh in 2017-18 in R&D Centre; & Rs.1058.82 lakh in 2017-18 and Rs.70.80 lakh in 2018-19 for Central Office under this head. However, the Petitioner has not furnished any justification for the same. Subsequently, in response to the ROP for the hearing dated 10.8.2022 in Petition No. 567/GT/2020 (tariff of DTPS, Units 3 & 4), the Petitioner has submitted that these expenses were incurred for transfer of land from R & D to Central Office as per the Govt. of West Bengal (change in the type of land from educational to business), capitalization of land in Ranchi and Kolkata, decapitalization of asset from R & D etc., considering the nature of expenses, the expenditure claimed as additional capitalization and decapitalization is allowed.

#### **Buildings**

95. The Petitioner has claimed total additional capital expenditure of Rs.165.38 lakh during 2017-19 (i.e., Rs 34.91 lakh in 2017-18 and Rs.130.47 lakh in 2018-19) for Central Office; Also, an amount of Rs.1.49 lakh in 2014-15 has been claimed for Other Offices



[including Central Relay & Instrumentation Testing Laboratory (CRITL), CMFS, Central Relay & Instrumentation Testing Mobile (CRITM), Central Service Organization (CSO) and Central Load Despatch (CLD)]; and Rs.38.31 lakh in 2015-16 for R&D Centre under this head. The Petitioner vide its affidavit dated 9.9.2022 in revised submissions mentioned that Rs. 165.38 lakh pertains to transfer of asset from DAM to central office, stamp paper & registration of a property in Delhi; Rs. 38.31 lakh pertains to expansion of R & D building and Rs.1.49 lakh towards extension of Central Testing Laboratory building; Considering the nature of expenses, the claimed expenditure as additional capitalization is allowed under the 2014 Tariff Regulations.

### **Powerhouse, Plant & Machinery**

96. The Petitioner has claimed additional capital expenditure of Rs.38.84 lakh in 2016-17 and Rs.5.42 lakh in 2018-19 for Direction Office, towards installation of Rooftop solar power plant at DVC Head Quarters for consumption of solar power for own usage. It is observed that the Petitioner has not justified the need for the work being undertaken and as to how the same would benefit the operations of the Petitioner in general and generating stations in particular. Accordingly, the additional capital expenditure of Rs.38.84 lakh in 2016-17 and Rs.5.42 lakh in 2018-19 for Direction Office is not allowed.

### **Machinery & Equipment – Workshop**

97. The Petitioner has claimed an additional capital expenditure of (-) Rs.0.88 lakh in 2015-16, (-) Rs.0.88 lakh in 2016-17 and (-) Rs. 0.01 lakh in 2017-18 in Other Offices [including Central Relay & Instrumentation Testing Laboratory (CRITL), CMFS, Central Relay & Instrumentation Testing Mobile (CRITM), Central Service Organization (CSO) and Central Load Despatch (CLD)], as rectification entry under this head. In view of this, the claims are allowed.



### **Sub-Station Equipment**

98. The Petitioner has claimed additional capital expenditure of Rs.8.01 lakh in 2015-16, Rs.1.15 lakh in 2016-17, Rs. 431.94 lakh in 2017-18 and Rs. 52.08 lakh in 2018-19 for Other Offices [including Central Relay & Instrumentation Testing Laboratory (CRITL), CMFS, Central Relay & Instrumentation Testing Mobile (CRITM), Central Service Organization (CSO) and Central Load Despatch (CLD)] and (-) Rs. 5.70 lakh in 2017-18 for Direction Office under this head. As regards the additional capital expenditure pertaining to Other Offices, the Petitioner has submitted that the expenditure was incurred to upgrade and equip the existing relay testing laboratory for accreditation by the National Accreditation Board for Testing and Calibration. As the additional capital expenditure incurred for NABL accreditation is not covered under the provisions of the 2014 Tariff Regulations, the additional capitalization and decapitalization claimed are not allowed.

### **Tower Poles and Fixtures**

99. The Petitioner has claimed additional capital expenditure of (-) Rs.0.28 lakh in 2017-18 for Other Offices [including Central Relay & Instrumentation Testing Laboratory (CRITL), CMFS, Central Relay & Instrumentation Testing Mobile (CRITM), Central Service Organization (CSO) and Central Load Despatch (CLD)] under this head as a rectification entry. Accordingly, the claim of the Petitioner is allowed.

### **Cyber Security Devices**

100. The Petitioner has claimed additional capital expenditure of Rs.97.85 lakh in 2018-19 for IT Cell– HQ towards strengthening the IT Cell to safeguard the IT equipment against any cyber threat, with the overall aim to protect data, and network secrecy to ensure smooth functioning of the system. The Petitioner has submitted that the said work is in compliance to the directives of the MOP, GOI dated 12.4.2010 and 2.8.2017, with regard to the steps to be taken to prevent cyber-attacks. As the work is in compliance to the directives of MOP,



GOI to prevent cyber-attacks, the additional capital expenditure of Rs.97.85 lakh claimed towards procurement of cyber security devices for the period 2014-19 is allowed.

### **EBA – Integrated Software**

101. The Petitioner has claimed additional capital expenditure of Rs.37.69 lakh in 2014-15 for IT Cell – HQ for supporting system of the integrated software used to facilitate various functions including material management, finance & accounting. It is noticed that the said work is related to ERP implementation at Head Office and hence, the additional capital expenditure claimed under this head is allowed.

### **Other Assets, Office Furniture and Personal Computers**

102. The Petitioner has claimed following additional capital expenditure under the head ‘Other Assets’, ‘Office Furniture’ and ‘Personal computer’ towards procurement of like personal computer, software, hardware, office equipment etc.

*(Rs. in lakh)*

	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Direction Office	26.85	9.17	29.77	55.79	(-)291.94
Subsidiary Activities	0.20	1.66	7.37	3.29	0.13
Other Offices	0.00	23.04	44.36	(-)30.96	10.62
R&D	0.00	0.00	0.00	0.00	0.00
IT	0.00	0.00	0.00	0.00	87.77
Central Office	50.86	94.73	43.26	170.21	222.52
<b>Total</b>	<b>77.91</b>	<b>128.60</b>	<b>124.77</b>	<b>198.34</b>	<b>29.09</b>

103. In justification for the same, the Petitioner has submitted that to fulfil the demand of valley area as well as other state utilities and distribution licensees, these items had to be additionally procured for capacity addition during the period 2014-19. The Petitioner has also submitted that the expenditure was essential to cope up with the extra volume of works associated with the huge capacity augmentation program taken up by the Petitioner and for smooth functioning of the offices. Considering the nature of these items, the additional capitalization and decapitalization is not allowed, in terms of first proviso to Regulation 14(3) of the 2014 Tariff Regulations.



## Assets Held for Disposal

104. The Petitioner has claimed total of Rs. 0.76 lakh (negative entry of Rs. 29.93 lakh in Central office and positive entry of Rs. 30.68 lakh in Direction office) under Asset held for disposal, however, has not furnished any justification for the same. Accordingly, the additional capitalization and decapitalization under subject head is not allowed.

105. Accordingly, the item-wise additional capital expenditure allowed towards various offices is summarised below:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Land and Land Rights	2.72	0.00	0.00	508.33	70.80
Buildings	1.49	38.31	0.00	34.91	130.47
Road Culverts & Rly. Sidings	0.00	0.00	0.00	(-)0.01	0.00
Power House Plant & Machinery	0.00	0.00	0.00	0.00	0.00
Machinery & Equipment-Workshop	0.00	(-)0.88	(-)0.88	(-)0.01	0.00
Sub Station Equipment	0.00	0.00	0.00	0.00	0.00
Tower Poles & Fixtures	0.00	0.00	0.00	(-)0.28	0.00
Cyber Security Assets	0.00	0.00	0.00	0.00	97.85
EBA - Integrated Software	37.69	0.00	0.00	0.00	0.00
Other Assets	0.00	0.00	0.00	0.00	0.00
Assets Held for Disposal	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>41.90</b>	<b>37.43</b>	<b>(-)0.88</b>	<b>542.94</b>	<b>299.13</b>

106. Based on the above, the additional capitalization allowed for various offices under common offices during the period 2014-19 is summarised as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Direction Office	0.00	0.00	0.00	(-)0.01	0.00
Subsidiary Activities	0.00	0.00	0.00	0.00	0.00
Other Offices	1.49	(-)0.88	(-)0.88	(-)0.29	0.00
R&D	2.72	38.31	0.00	(-)550.49	0.00
IT	37.69	0.00	0.00	0.00	97.85
Central Office	0.00	0.00	0.00	1093.73	201.27
<b>Total</b>	<b>41.90</b>	<b>37.43</b>	<b>(-)0.88</b>	<b>542.94</b>	<b>299.13</b>

107. It is observed, that the Petitioner has worked out ROE by grossing up the rate of ROE with MAT rate. However, as the Petitioner has not been paying any income tax in any of the financial year of 2014-19 tariff period, 'Nil' rate has been considered as effective tax rate for respective financial year for the purpose of grossing up of ROE in terms of the



provisions of the 2014 Tariff Regulations, and the rate of ROE is considered as 15.50% for the period 2014-19.

108. The annual fixed charges for Common offices have been worked out by considering the closing capital cost as on 31.3.2014 as the admitted opening capital cost as on 1.4.2014. The annual fixed charges of Common Offices, as worked out for the period 2014-19, have been apportioned to generating stations / T&D systems, based on the approved capital cost as on 31.3.2014 of each generating stations/T&D systems. Accordingly, in line with the decision of the Commission order dated 29.7.2016 in Petition No. 468/GT/2014, the fixed charges have been computed and has been allocated to various generating stations as under:

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	471.40	407.64	343.93	348.25	368.72
Interest on Loan	140.86	111.83	99.77	67.56	58.18
Return on Equity	548.59	550.43	551.28	563.88	583.46
<b>Total</b>	<b>1160.85</b>	<b>1069.90</b>	<b>994.98</b>	<b>979.69</b>	<b>1010.37</b>

*(Rs. in lakh)*

	Capital Cost as on 1.4.2014	Year wise share of common office expenses for all DVC Generating stations and T&D systems				
		2014-15	2015-16	2016-17	2017-18	2018-19
All DVC Generating Stations	2036943.91	1068.68	984.95	915.98	901.90	930.14
T&D	175678.95	92.17	84.95	79.00	77.79	80.22
<b>Total</b>	<b>2212622.86</b>	<b>1160.85</b>	<b>1069.90</b>	<b>994.98</b>	<b>979.69</b>	<b>1010.37</b>

*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Common Office Expenditure apportioned to Tilaiya HPS</b>	0.68	0.62	0.49	0.49	0.51

109. Accordingly, the annual fixed charges approved for the generating station for the period 2014-19 is summarized as under:

*(Rs. in lakh)*

S. No.		2014-15	2015-16	2016-17	2017-18	2018-19
1	Depreciation	18.48	18.48	0.06	0.00	0.00
2	Interest on Loan	0.00	0.00	0.00	0.00	0.00
3	Return on Equity	21.61	21.61	21.61	21.61	21.61



S. No.		2014-15	2015-16	2016-17	2017-18	2018-19
4	Interest on Working Capital	39.54	42.10	44.41	47.33	50.44
5	O&M Expenses	698.99	745.43	794.95	847.77	904.10
	<b>Sub Total (A)</b>	<b>778.61</b>	<b>827.62</b>	<b>861.03</b>	<b>916.71</b>	<b>976.15</b>
7	Interest & Contribution on Sinking Fund	11.12	11.94	13.71	0.00	0.00
8	Expenditure for Subsidiary activity	0.68	0.62	0.49	0.49	0.51
9	Share of Common Office Expenditure	2.24	2.74	2.28	2.20	1.55
	<b>Sub Total (B)</b>	<b>14.05</b>	<b>15.30</b>	<b>16.48</b>	<b>2.68</b>	<b>2.07</b>
	<b>Total (A) + (B)</b>	<b>792.66</b>	<b>842.92</b>	<b>877.51</b>	<b>919.40</b>	<b>978.22</b>

Note: (1) All figures are on annualized basis. (2) All figures under each head have been rounded. The figure in total column in each year is also rounded. As such the sum of individual items may not be equal to the arithmetic total of the column

110. The difference between the annual fixed charges already recovered by the Petitioner and the annual fixed charges determined by this order, shall be adjusted in terms of the provisions of Regulation 8(13) of the 2014 Tariff Regulations.

### **Normative Annual Plant Availability Factor**

111. The Petitioner has claimed Normative Annual Plant Availability Factor (NAPAF) of 80% for the period 2014-19. As regards NAPAF, Clause (4) of Regulation 37 of the 2014 Tariff Regulations provides for the NAPAF of 80% for the generating station. Accordingly, the NAPAF of 80% is considered for the generating station for the period 2014-19.

### **Design Energy**

112. The Petitioner has claimed the design energy as 0.125MU. Considering the above design energy of .125 MU, the normative auxiliary energy consumption of 0.70% and approved annual fixed charges of Rs. 978.22 lakh for 2018-19, the composite tariff for 2018-19 works out to Rs. 788.70 per Kwh, which is abnormally high and not acceptable. Accordingly we have examined the matter and it is noted that inadvertently the Commission vide order dated 23.9.2016 in Petition No. 351/GT/2014, had approved annual design energy of 0.125 MU. In order to allow reasonable tariff, we have considered the average of the actual energy generation (in MU) for the generating station for the period 2014-19, as



under:

2014 - 15	2015 - 16	2016 - 17	2017-18	2018-19	Average
9.46	10.54	13.94	10.72	5.18	9.97

113. Considering the above average annual energy generation of 9.97 MU as design energy, the normative auxiliary energy consumption of 0.70% and approved annual fixed charges of Rs. 978.22 lakh for 2018-19, the composite tariff for 2018-19 works out as Rs. 9.882 per Kwh.

114. In view of the above, we allow the average energy generation of 5 years, as design energy. However, the Petitioner is directed to review the design energy i.e. energy which can be generated in a 90% dependable year with 95% installed capacity of the generating station. For this purpose, 90% dependable year shall be determined by considering the hydrological data available for past years since COD of the generating station, and submit the same for a final decision on the design energy for the generating station.

### **Summary**

115. The total annual fixed charges claimed and those allowed (after truing-up) for the period 2014-19 is summarised below as follows:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Annual fixed charges claimed	822.33	885.71	953.43	1024.55	1032.37
<b>Annual fixed charges allowed</b>	<b>792.66</b>	<b>842.92</b>	<b>877.51</b>	<b>919.40</b>	<b>978.22</b>

### **DETERMINATION OF TARIFF FOR THE PERIOD 2019-24**

116. The Petitioner, in this petition, has also sought the determination of tariff of the generating station for the period 2019-24, in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short "the 2019 Tariff Regulations"). Accordingly, the capital cost and the annual fixed charges claimed by the Petitioner for the period 2019-24 are as under:



### Capital Cost claimed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost (A)	280.36	280.36	706.35	706.35	706.35
Add: Additional Capital Expenditure (B)	0.00	440.93	0.00	0.00	0.00
Less: De-Capitalization during the year / period (C)	0.00	14.95	0.00	0.00	0.00
Less: Reversal during the year / period (D)	0.00	0.00	0.00	0.00	0.00
Less: Undischarged liabilities (E)	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year / period (F)	0.00	0.00	0.00	0.00	0.00
Closing Capital Cost (G) = (A+B-C-D-E+F)	280.36	706.35	706.35	706.35	706.35
Average Capital Cost (H) = (A+G)/2	280.36	493.36	706.35	706.35	706.35

### Annual Fixed Charges claimed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	0.68	34.34	49.16	49.16	49.16
Interest on loan	0.02	13.78	25.07	20.08	15.09
Return on Equity	28.35	41.41	54.46	54.46	54.46
Interest on Working Capital	41.76	44.64	47.30	49.35	51.52
O&M Expenses	900.17	943.08	988.03	1,035.13	1,084.47
Security Expenses	34.34	35.61	36.93	38.30	39.72
<b>Sub-Total (A)</b>	<b>1,005.32</b>	<b>1,112.86</b>	<b>1,200.94</b>	<b>1,246.48</b>	<b>1,294.41</b>
DVC's share of savings in interest cost due to loan restructuring	0.001	0.64	1.16	0.93	0.70
Impact of Pay Revision due to recommendation of 7th Pay Commission	4.47	4.63	4.80	4.98	5.17
Impact of GST as "Change in Law"	0.02	0.02	0.02	0.02	0.02
Share of P&G	14.91	15.61	16.34	17.11	17.91
Share of Common Office Expenditure	0.79	0.84	0.85	0.74	0.67
Expenses due to Mega insurance and Expenditure for Subsidiary activity	2.37	2.45	2.54	2.64	2.74
<b>Sub-Total (B)</b>	<b>22.54</b>	<b>24.19</b>	<b>25.72</b>	<b>26.41</b>	<b>27.20</b>
<b>Total Annual Fixed Charges (A+B)</b>	<b>1,027.87</b>	<b>1,137.05</b>	<b>1,226.66</b>	<b>1,272.89</b>	<b>1,321.61</b>

### Capital Cost

117. Clauses (1), (3) and (5) of Regulation 19 of the 2019 Tariff Regulations provide as under:

**“19. Capital Cost:**

(1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.



....  
(3) *The Capital cost of an existing project shall include the following:*  
(a) *Capital cost admitted by the Commission prior to 1.4.2019 duly tried up by excluding liability, if any, as on 1.4.2019;*  
(b) *Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*  
(c) *Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;*  
(d) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*  
(e) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*  
(f) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

....  
(5) *The following shall be excluded from the capital cost of the existing and new projects:*  
(a) *The assets forming part of the project, but not in use, as declared in the tariff petition;*  
(b) *De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*  
*Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be decapitalised only after its redeployment.*

118. The opening capital cost claimed by the Petitioner as on 1.4.2019 is Rs. 280.36 lakh. However, the closing capital cost of Rs. 267.56 lakh as on 31.3.2019, as approved in this order, for the period 2014-19, has been considered as the opening capital cost, as on 1.4.2019, for the purpose of determination of tariff for the period 2019-24, in accordance with the 2019 Tariff Regulations.

### **Additional Capital Expenditure**

119. Clauses (1) and (2) of Regulations 25 and Regulation 26 of the 2019 Tariff Regulations, provides as under:

*“25. Additional Capitalization within the original scope and after the cut-off date:*  
(1) *The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:*  
a) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*



- b) *Change in law or compliance of any existing law;*
- c) *Deferred works relating to ash pond or ash handling system in the original scope of work;*
- d) *Liability for works executed prior to the cut-off date;*
- e) *Force Majeure events;*
- f) *Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and*
- g) *Raising of ash dyke as a part of ash disposal system.*

(2) *In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:*

- a) *The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;*
- b) *The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;*
- c) *The replacement of such asset or equipment is necessary on account of obsolescence of technology; and*
- d) *The replacement of such asset or equipment has otherwise been allowed by the Commission.*

**26. Additional Capitalization beyond the original scope**

(1) *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 beyond the original scope, may be admitted by the Commission, subject to prudence check:*

- a) *Liabilities to meet award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;*
- b) *Change in law or compliance of any existing law;*
- c) *Force Majeure events.*
- d) *Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security;*
- e) *Deferred works relating to ash pond or ash handling system in additional to the original scope of work, on case to case basis:  
Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M) or repairs and maintenance under O&M expenses, the same shall not be claimed under this Regulation;*
- f) *Usage of water from sewage treatment plant in thermal generating station.*

(2) *In case of de-capitalization of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of de-capitalization shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalization takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalized."*

120. The Petitioner has claimed projected additional capital expenditure for 2020-21 and the same is examined on prudence check, as stated below.



Sl. No.	Assets/Works	Amount Claimed	Regulation	Justification and Reasons of Admissibility	Amount allowed
1	Air compressor for powerhouse	8.00	25 (2) (a)	The Petitioner has submitted that the projected additional capital expenditure is for replacement of existing air compressor for ensuring smooth O&M activities. Considering the submissions of the Petitioner and since the claim is towards replacement of asset/work due to completion of useful life of the asset, the claim of the Petitioner is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations. The Petitioner has also claimed decapitalization of the old assets. The gross value of de-capitalized assets has been considered under the head 'De-capitalization'.	8.00
2	33 KV CT	20.00	25 (2) (a)	The Petitioner has submitted that the projected additional capital expenditure is for replacement of Replacement of 12 nos old CTs as there are currently two nos of bay at the station, out of which one is out since long and along with 06 no's of CTs effecting reliability of switch yard. Considering the submissions of the Petitioner and since the claim is towards the replacement of asset/work due to completion of useful life of the asset, the claim of the Petitioner, is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations. The Petitioner has also claimed decapitalization of the old assets. The gross value of de-capitalized assets has been considered under the head 'De-capitalization'.	20.00
3	33 KV Vacuum type breaker	30.00	25 (2) (a)	The Petitioner has submitted that the projected additional capital expenditure is for replacement of Two CBs to replace old oil type CBs with new Vacuum Type, and another CB for bay which is out of order along with all the 9 CTs. The Petitioner has claimed the expenditure under Regulation 25(2)(a) of the 2019 Tariff Regulations. However,	30.00



Sl. No.	Assets/Works	Amount Claimed	Regulation	Justification and Reasons of Admissibility	Amount allowed
				considering the submissions of the Petitioner and since the claim pertains to replacement of asset/work due to obsolescence of technology and on account of completion of useful life of the asset, the same is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations in exercise of the power to relax, under Regulation 76 of the 2019 Tariff Regulations. The Petitioner has also claimed decapitalization of the old assets. The gross value of de-capitalized assets has been considered under the head 'De-capitalization'.	
4	33 kV PT	5.00	25 (2) (a)	The Petitioner has submitted that the projected additional capital expenditure is for replacement of 2 no. of 33 kV PT. Considering the submissions of the Petitioner and since the claim of the Petitioner, is towards the replacement of asset/work due to completion of useful life of the asset, the same is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations. The Petitioner has also claimed decapitalization of the old assets. The gross value of de-capitalized assets has been considered under the head 'De-capitalization'.	5.00
5	Transformer oil filter machine	12.00	76 & 77	The Petitioner has submitted that the projected additional capital expenditure is for transformer oil filter machine. Considering the submissions of the Petitioner and since the expenditure is necessary for ensuring the reliable operation and for facilitating the maintenance activities, the claim of the Petitioner, is allowed.	12.00
6	Compressor for powerhouse	10.00	25 (2) (a)	The Petitioner has submitted that the projected additional capital expenditure claimed is towards the replacement of existing old compressor for facilitation of O&M activities. Considering the submissions of the Petitioner and since the claim of the Petitioner pertains to replacement of	10.00



Sl. No.	Assets/Works	Amount Claimed	Regulation	Justification and Reasons of Admissibility	Amount allowed
				asset/work due to completion of useful life of the asset, the same is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations. The Petitioner has also claimed decapitalization of the old assets. The gross value of de-capitalized assets has been considered under the head 'De-capitalization'.	
7	Centrifuge machine	8.00	76 & 77	The Petitioner has submitted that the projected additional capital expenditure is for centrifuge machine which is required for smooth running of units. Considering the submissions of the Petitioner and since the expenditure is necessary for ensuring the reliable operation and for facilitating maintenance activities, the claim of the Petitioner, is allowed.	8.00
8	10 Hp Pump for filter house	8.00	25 (2) (a)	The Petitioner has submitted that the projected additional capital expenditure is towards the replacement of existing pumps that have complete their useful lives. Considering the submissions of the Petitioner and since the claim of the Petitioner is towards the replacement of asset/work due to completion of useful life of the asset, the same is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations. The Petitioner has also claimed decapitalization of the old assets. The gross value of de-capitalized assets has been considered under the head 'De-capitalization'.	8.00
9	Procurement of 2.5 MVA Transformer	200.00	25 (2) (a)	The Petitioner has submitted that the projected additional capital expenditure is towards the replacement of existing transformers that have completed their useful lives. Considering the submissions of the Petitioner and since the claim of the Petitioner is towards the replacement of the asset/work due to completion of useful life of the asset, the same is allowed under Regulation 25(2)(a) of the	200.00



Sl. No.	Assets/Works	Amount Claimed	Regulation	Justification and Reasons of Admissibility	Amount allowed
				2019 Tariff. The Petitioner has also claimed decapitalization of the old assets. The gross value of de-capitalized assets has been considered under the head 'De-capitalization'.	
10	Replacement of MOCB breakers of powerhouse	100.00	25 (2) (a)	<p>The Petitioner has submitted that the projected additional capital expenditure is towards the replacement of Two CBs to replace old oil type CBs with new Vacuum Type, and another CB for bay, which is out of order, along with all the 9 CTs.</p> <p>The Petitioner has claimed the expenditure under Regulation 25(2)(a) of the 2019 Tariff Regulations. However, considering the submission of the Petitioner and since of the Petitioner is for replacement of asset/work due to obsolescence of technology and on completion of useful life of the asset, the same is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations, in exercise of the power to relax, under Regulation 76 of the 2019 Tariff Regulations. The Petitioner has also claimed decapitalization of the old assets. The gross value of de-capitalized assets has been considered under the head 'De-capitalization'.</p>	100.00
11	CCTV camera For Power house and Dam	5.00	26 (1) (d)	<p>The Petitioner has submitted that the projected additional capital expenditure is for ensuring security of dam and Powerhouse by installation of CCTV which is inline with suggestions of IB New Delhi.</p> <p>Considering the fact that the expenditure incurred is for assets which are for higher security and safety of the plant as advised or directed by appropriate authority, the additional capital expenditure claimed is allowed in terms of the first proviso to Regulation 26(1)(d) of the 2019 Tariff Regulations.</p>	5.00
12	Battery Bank	9.00	25 (2) (a)	The Petitioner has submitted that the projected additional capital	9.00



Sl. No.	Assets/Works	Amount Claimed	Regulation	Justification and Reasons of Admissibility	Amount allowed
				expenditure is for replacement of age-old battery bank of powerhouse. Considering the submissions of the Petitioner and since the claim is towards the replacement of asset/work due to completion of useful life of the asset, the same is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations. The Petitioner has also claimed decapitalization of the old assets. The gross value of de-capitalized assets has been considered under the head 'De-capitalization'.	
13	Battery Chargers	10.00	25 (2) (a)	The Petitioner has submitted that the projected additional capital expenditure is for replacement of to replace the existing age-old colony breaker. Considering the submissions of the Petitioner and since the claim is towards the replacement of asset/work due to completion of useful life of the asset, the same is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations. The Petitioner has also claimed decapitalization of the old assets. The gross value of de-capitalized assets has been considered under the head 'De-capitalization'.	10.00
14	Colony Breaker	9.00	25 (2) (a)	The Petitioner has submitted that the projected additional capital expenditure is for replacement of to replace the existing age-old colony breaker. Considering the submissions of the Petitioner and since the claim is towards the replacement of asset/work due to completion of useful life of the asset, the same is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations. The Petitioner has also claimed decapitalization of the old assets. The gross value of de-capitalized assets has been considered under the head 'De-capitalization'.	9.00
15	Computers and Laptops	4.20	26 (1) (d)	The Petitioner has submitted that the projected additional capital expenditure is for ensuring	4.20



Sl. No.	Assets/Works	Amount Claimed	Regulation	Justification and Reasons of Admissibility	Amount allowed
				security against cyber threat. This purchase is in compliance with the directives of the Ministry of Power, GOI dt. 12.04.2010 and dt. 02.08.2017, with regard to the steps to be taken to prevent cyber-attacks. Considering the fact that the expenditure incurred is for assets which are for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality responsible for national or internal security, the additional capital expenditure claimed is allowed under the first proviso to Regulation 26(1)(d) of the 2019 Tariff Regulations.	
16	Other assets	2.73	76 & 77	The Petitioner has submitted that the projected additional capital expenditure is for procurement of different office equipment's for office use at the generating station. Considering the fact that the expenditure incurred is for assets which are in the nature of minor assets, the additional capital expenditure claimed is not allowed. .	0.00
	<b>Amount claimed</b>	<b>440.93</b>			
	<b>Amount allowed</b>				<b>438.20</b>

121. As such, the total projected additional capital expenditure of Rs.438.20 lakh is allowed in 2020-21.

122. The Petitioner has not claimed any additional capital expenditure for Tilaiya dam and Konnar dam for the period 2019-24.

123. Based on the above, the additional capital expenditure allowed for the period 2019-24 is as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
0.00	438.20	0.00	0.00	0.00



## De-capitalization

124. The Petitioner has claimed de-capitalization (as per Form 9Bi) for assets/ works such as, Air Compressor for powerhouse, 33 kV CT, 33 kV Vacuum Type breaker, etc which are summarized as under:

(Rs. in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
0.00	14.95	0.00	0.00	0.00

125. Regulation 26(2) of the 2019 Tariff Regulations states as under:

*“In case of de-capitalization of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of de-capitalization shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalization takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalized..”*

126. Since, these assets are not in use, the de-capitalization claimed by the Petitioner as above, is allowed.

## Capital cost allowed for the period 2019-24

127. Accordingly, the capital cost approved for the period 2019-24 is shown in the table as follows:

(Rs. in lakh)					
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital cost	267.56	267.56	690.81	690.81	690.81
Add: Addition during the year / period	0.00	438.20	0.00	0.00	0.00
Less: De-capitalization	0.00	14.95	0.00	0.00	0.00
<b>Closing Capital cost</b>	<b>267.56</b>	<b>690.81</b>	<b>690.81</b>	<b>690.81</b>	<b>690.81</b>
Average capital cost	267.56	479.19	690.81	690.81	690.81

## Debt Equity Ratio

128. Regulations 18 and 72 of the 2019 Tariff Regulations provides as follows:

*“18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:*

*Provided that:*

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



- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

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

(2) *The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.*

(3) *In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:*

*Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;*

*Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.*

(4) *In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.*

(5) *Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.”*

xxxx

**72. Special Provisions relating to Damodar Valley Corporation:** (1) *Subject to clause (2), this Regulation shall apply to determination of tariff of the projects owned by Damodar Valley Corporation (DVC).*

(2) *The following special provisions shall apply for determination of tariff of the projects owned by DVC:*

.....

**(ii) Debt Equity Ratio:** *The debt equity ratio of all projects of DVC commissioned prior to 01.01.1992 shall be 50:50 and that of the projects commissioned thereafter shall be 70:30.”*

129. The debt-equity ratio of 50:50 has been considered for assets de-capitalised during the period 2014-19, as these assets were originally allocated to debt and equity in the ratio



of 50:50 in the respective tariff orders. Accordingly, the details of debt-equity ratio in respect of the generating station as on 1.4.2014 and as on 31.3.2019. Accordingly, the details of the debt and equity in respect of the generating station is as follows:

**(Rs. In lakh)**

	<b>As on 31.3.2019</b>	<b>in %</b>	<b>ACE in 2019- 24</b>	<b>in %</b>	<b>De- capitaliza tion in 2019-24</b>	<b>in %</b>	<b>As on 31.3.2024</b>	<b>in %</b>
Debt	136.59	51.05%	306.74	70%	7.47	50%	435.86	63.09%
Equity	130.97	48.95%	131.46	30%	7.47	50%	254.96	36.91%
<b>Total</b>	<b>267.56</b>	<b>100%</b>	<b>438.20</b>	<b>100%</b>	<b>14.95</b>	<b>100%</b>	<b>690.81</b>	<b>100%</b>

130. In terms of Regulation 18 of 2019 Tariff Regulations, the debt-equity ratio of 70:30 has been applied on year-wise admitted additional capital expenditure for arriving at the additions to loan and equity during each year of the period 2019-24.

### **Return on Equity**

131. Regulations 30 of the 2019 Tariff Regulations provide as follows:

*“30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.*

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

*Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system*

*Provided further that:*

*i. In case of a new project, the rate of return on equity shall be reduced by 1.00% 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) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*

*ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;*

*iii. in case of a thermal generating station, with effect from 1.4.2020:*

*a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*

*b) an additional rate of return on equity of 0.25% shall be allowed for every*



incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019.”

132. Regulation 30 of the 2019 Tariff Regulations provide as follows:

“31. Tax on Return on Equity. (1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations 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 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 paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded 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.

**Illustration-**

(i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

Rate of return on equity =  $15.50/(1-0.2155) = 19.758\%$

(ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

(b) Estimated Advance Tax for the year on above is Rs 240 crore;

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;

(d) Rate of return on equity =  $15.50/(1-0.24) = 20.395\%$ .

(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 2019-24 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 customers, as the case may be, on year to year basis.”

133. DVPCA has submitted that though the Petitioner has considered effective tax rate of



21.032% for the computation of Return on Equity for the period 2019-24, the same is premature and needs to be claimed under true-up based on actual tax paid in terms of Regulation 31 of the 2019 Tariff Regulations. Regarding the Petitioner's claim w.r.t the RoE at weighted average rate of interest on actual loan portfolio as per submission in the Form-1(I) of the tariff formats for additional capitalisation, the Objector, DVPCA has submitted that the Petitioner has neither submitted any details of assets nor any justification for claiming the additional capitalisation after cut-of date and beyond the original scope of work. In response, the Petitioner in its rejoinder has prayed for computation of ROE without considering the income tax rates for the period 2019-24. However, the Petitioner has craved leave of the Commission to claim the income tax liability, if any, during any year of the period 2019-24 in future. The Petitioner has submitted that it has furnished details of assets along with justification in Form-9 of the petition, for the period 2019-24.

134. The matter has been considered. The Petitioner has not been paying any income tax in any of the financial year of the period 2014-19. Also, considering the submissions of the Petitioner above, the effective tax rate has been considered as 'Nil' for the purpose of grossing up of ROE and the rate of ROE has been considered as 16.50% for the period 2019-24. Further based on the additional capital expenditure which are beyond the original scope and allowed in this order, ROE has been calculated considering the weighted average rate of interest of the relevant year. Accordingly, ROE is worked out and allowed as follows:

*(Rs. in lakh)*

	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Return on Equity on capital cost within the original scope of work</b>					
Gross Notional Equity(A)	130.97	130.97	252.20	252.20	252.20
Addition due to additional capitalization within the original scope of work(B)	0.00	128.70	0.00	0.00	0.00
Less De-Capitalization allowed(C)	0.00	(-)7.47	0.00	0.00	0.00
Closing Notional Equity D=(A+B+C)	130.97	252.20	252.20	252.20	252.20



	2019-20	2020-21	2021-22	2022-23	2023-24
Average Equity (E) =(A+D)/2	130.97	191.58	252.20	252.20	252.20
Return on Equity (Base Rate) (F)	16.50%	16.50%	16.50%	16.50%	16.50%
Effective Tax rate for the year (G)	0.00%	0.00%	0.00%	0.00%	0.00%
Rate of Return on Equity (H)	16.50%	16.50%	16.50%	16.50%	16.50%
<b>Return on Equity within the original scope of work (I)</b>	<b>21.61</b>	<b>31.61</b>	<b>41.61</b>	<b>41.61</b>	<b>41.61</b>
<b>Addition due to additional capitalization beyond original scope of work</b>					
Opening Equity(J)	0.00	0.00	2.76	2.76	2.76
Addition due to Capitalization beyond scope of work (K)	0.00	2.76	0.00	0.00	0.00
Closing Equity L=(J+K)	0.00	2.76	2.76	2.76	2.76
Average Equity M=(J+L)/2	0.00	1.38	2.76	2.76	2.76
Rate of return for additional capitalization beyond original scope (i.e., weighted average rate of interest approved by the Commission) (%) (N)	6.912%	6.912%	6.912%	6.912%	6.912%
Return on equity for additional capitalization beyond original scope(O)	0.00	0.10	0.19	0.19	0.19
<b>Total Return on Equity P=(I+O)</b>	<b>21.61</b>	<b>31.71</b>	<b>41.80</b>	<b>41.80</b>	<b>41.80</b>

### Interest on Loan

135. Regulation 32 of the 2019 Tariff Regulations provides as follows:

*“32. Interest on loan capital: (1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.*

*(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.*

*(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.*

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

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

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

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



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

(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.”

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

- Gross normative loan amounting to Rs. 136.59 lakh on 31.3.2019 as considered in this order for the period 2014-19, has been considered as on 1.4.2019.
- Cumulative repayment of Rs. 136.59 lakh as on 31.3.2019 as considered in this order for the period 2014-19, has been considered as on 1.4.2019.
- Accordingly, the net normative opening loan as on 1.4.2019 works out as ‘nil’.
- Weighted average rate of interest on loan for the period 2019-24 has been considered as approved for 2018-19.
- Depreciation allowed has been considered as repayment of normative loan, if any during the respective years of the period 2019-24.
- Interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest, considered as above.

137. Interest on loan has been worked out as follows:

		<i>(Rs. in lakh)</i>				
		2019-20	2020-21	2021-22	2022-23	2023-24
Gross opening loan	A	136.59	136.59	435.86	435.86	435.86
Cumulative repayment of loan up to previous year	B	136.59	136.59	162.47	210.55	258.63
Net Loan Opening	C=(A-B)	0.00	0.00	273.39	225.31	177.22
Net Addition due to additional capital expenditure	D	0.00	299.27	0.00	0.00	0.00
Repayment of loan during the year	E	0.00	33.35	48.08	48.08	48.08
Repayment adjustment on account of de-capitalization	F	0.00	7.47	0.00	0.00	0.00
Net repayment of the loan during the year	G=(E-F)	0.00	25.88	48.08	48.08	48.08
Net Loan Closing	H=(C+D-G)	0.00	273.39	225.31	177.22	129.14
Average Loan	I=Average (C, H)	0.00	136.69	249.35	201.26	153.18
Weighted Average Rate of Interest of loan	J	6.912%	6.912%	6.912%	6.912%	6.912%
<b>Interest on Loan</b>	<b>K=(IxJ)</b>	<b>0.00</b>	<b>9.45</b>	<b>17.24</b>	<b>13.91</b>	<b>10.59</b>

## Depreciation



138. Regulations 33 and 72 (2) (iii) of the 2019 Tariff Regulations provides as follows:

*“33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. 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:*

*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 a 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 the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;*

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

*Provided also 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 unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or 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-I** to these regulations for the assets of the generating station and transmission system:*

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

*(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.*

*(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the*



depreciation on capital expenditure.

(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.

.....

**72. Special Provisions relating to Damodar Valley Corporation:** (1) Subject to clause (2), this Regulation shall apply to determination of tariff of the projects owned by Damodar Valley Corporation (DVC).

(2) The following special provisions shall apply for determination of tariff of the projects owned by DVC:

.....

**(iii) Depreciation:** The depreciation rate stipulated by the Comptroller and Auditor General of India in terms of section 40 of the Damodar Valley Corporation Act, 1948 shall be applied for computation of depreciation of projects of DVC.”

139. The cumulative depreciation of Rs 239.91 lakh as on 31.3.2019, as determined in the ‘Truing-up for 2014-19 tariff period’ section of this order has been considered. Accordingly, in terms of Regulations 33 and 72 (2) (iii) of the 2019 Tariff Regulations, depreciation has been worked out and allowed as under:

		<b>(Rs. in lakh)</b>				
		<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Average Capital Cost	A	267.56	479.19	690.81	690.81	690.81
Value of freehold land	B	1.00	1.00	1.00	1.00	1.00
Aggregated Depreciable Value	C= [(A-B) x90%]	239.90	430.37	620.83	620.83	620.83
Remaining Aggregate Depreciable value at the beginning of the year	D=[(C)-(Cumulative Depreciation of Previous year)]	0.00	190.46	361.02	312.94	264.86
Balance useful life at the beginning of the year	E	-	-	-	-	-
Weighted Average Rate of Depreciation (WAROD)	F	6.960%	6.960%	6.960%	6.960%	6.960%
Depreciation (annualized)	G+ Min(AxF,D)	0.00	33.35	48.08	48.08	48.08
<b>Cumulative depreciation (at the end of the year)</b>	<b>H= [(Cumulative Depreciation of Previous year)+(G)]</b>	<b>239.91</b>	<b>273.26</b>	<b>307.89</b>	<b>355.98</b>	<b>404.06</b>
Less: Depreciation adjustment on account of de-capitalization	I	0.00	13.45	0.00	0.00	0.00
Cumulative depreciation at the end of the year	J=(H-I)	239.91	259.81	307.89	355.98	404.06



## **Operation & Maintenance Expenses**

140. Regulation 35(2)(a) of the 2019 Tariff Regulations provides for O&M expenses for this generating station as under:

*“34(3) Following operations and maintenance expense norms shall be applicable for hydro generating stations which have been operational for three or more years as on 1.4.2019:*

*(Rs. in lakh)*

	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Tilaiya</b>	900.17	943.08	988.03	1035.13	1084.47

*Note: The impact in respect of revision of minimum wage and GST, if any, will be considered at the time of determination of tariff.”*

141. The Petitioner has claimed total O&M expenses in terms of the above regulations, as under:

*(Rs. in lakh)*

<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
900.17	943.08	988.03	1035.13	1084.47

142. As the Petitioner has claimed normative O&M expenses in accordance with Regulation 35(2)(a) of the 2019 Tariff Regulations, the claim of the Petitioner is allowed.

## **Impact of Pay Revision**

143. The Petitioner has claimed additional O&M expenses on account of impact of pay revision of its as under:

*(Rs. in lakh)*

<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
4.47	4.63	4.80	4.98	5.17

144. The Petitioner has claimed expenditure of Rs. 24.05 lakh in 2019-20 as additional O&M expenses due pay revision of its staff, in 2018-19. The Petitioner has submitted that the actuarial assumption for future salary increase @ 3.71% has been considered to the impact of Pay revision in 2018-19 to arrive at projected impact of pay revision for the period 2019-24. It is pertinent to mention that the Commission, in this order, has not allowed the additional O&M expenses due to impact of wage/pay revision for the period 2017-19, as claimed by the Petitioner, on the ground that there was no under recovery, due to impact of pay revision of the Petitioner's staff and KV staff during the period 2014-19. Accordingly,



the claim of the Petitioner on account of impact due to pay revision of Petitioner's staff and KV staff has been disallowed during the period 2019-24. However, the Petitioner is granted liberty to approach the Commission for the same at the time of truing up of tariff along with relevant documents including auditor certified statement.

### **Security Expenses**

145. Regulation 35(2) (d) of the 2019 Tariff Regulations provides as under:

*"The Security Expenses and Capital Spares for hydro generating stations shall be allowed separately after prudence check:*

*Provided further that the generating station shall submit the assessment of the security requirement and estimated expenses, the details of year-wise actual capital spares consumed at the time of truing-up of tariff with appropriate justification."*

146. The Petitioner has claimed Security expenses as part of O&M expenses in terms of Regulation 35(2)(d) of the 2019 Tariff Regulations as under:

<i>(Rs. in lakh)</i>				
<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
34.34	35.61	36.93	38.30	39.72

147. It is observed that the Petitioner has escalated the actual Security expenses for the year 2018-19 at the rate of 3.71% per annum, to claim the projected security expenses for the period 2019-24. The Petitioner has also submitted that escalation of Security expenses has been proposed to accommodate the year-on-year growth of salary expenditures and associated CISF activities, that are primarily governed by the CISF Rules. In view of the above, the projected security expenses claimed by the Petitioner, is allowed. The Petitioner shall, at the time of truing up, furnish the actual security expenses incurred along with the justification and the same shall be assessed in terms of the proviso to Regulation 35(2)(d) of the 2019 Tariff Regulations.

### **Interest on Working Capital**

148. Regulation 34(1)(a) of the 2019 Tariff Regulations provide as under:

*"34. Interest on Working Capital: (1) The working capital shall cover:  
(c) For Hydro Generating Station (including Pumped Storage Hydro Generating*



Station) and Transmission System:

(i) Receivables equivalent to 45 days of annual fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and

(iii) Operation and maintenance expenses, including security expenses for one month.”

149. Clause (3) and (4) of the Regulation 34 of the 2019 Tariff Regulations provide as under:

“(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1<sup>st</sup> April of the year during the tariff period 2019-24 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:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.

(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

**a) Working Capital for Maintenance Spares**

150. The Petitioner has claimed the maintenance spares in the working capital as under:

*(Rs. in lakh)*

2019-20	2020-2021	2021-22	2022-23	2023-24
140.18	146.80	153.74	161.01	168.63

151. Maintenance spares for the purpose of interest on working capital in accordance with Regulation 34(1)(c)(ii) of the 2019 Tariff Regulations, has been worked out as follows:

*(Rs. in lakh)*

2019-20	2020-2021	2021-22	2022-23	2023-24
140.18	146.80	153.74	161.01	168.63

**b) Working Capital for Receivables**

152. Receivable component of the working capital has been worked out on the basis of 45 days of fixed cost as follows:

*(Rs. in lakh)*

2019-20	2020-21	2021-22	2022-23	2023-24
122.60	134.88	144.54	150.33	155.97

**c) Working Capital for O&M Expenses**

153. The O&M expenses for 1 (one) month claimed by the Petitioner for the purpose of working capital is as under:



<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
77.88	81.56	85.41	89.45	93.68

154. Considering the O&M expenses allowed the O&M expenses for 1 (one) month allowed for the purpose of working capital is as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
77.88	81.56	85.41	89.45	93.68

**d) Rate of Interest for Working Capital**

155. Regulation 34(3) of the 2019 Tariff Regulations provides for the rate of interest on working capital considered on projection basis, for the period 2019-24 as 12.05% (i.e., 1-year SBI MCLR of 8.55% as on 1.4.2019 + 350 basis points). As the tariff of the generating station for the period 2019-24, is being determined during the year 2022-23, the SBI MCLR as on 1.4.2020 (7.75%), 1.4.21 (7.00%) and as on 1.4.2022 (7.00%) is also available. Since, the rate of interest on working capital is subject to revision at the time of truing-up of tariff, based on the bank rate as on 1st April of each financial year, we find it prudent to allow the rate of interest as on 1.4.2020, 1.4.2021 and 1.4.2022, for the subsequent financial years. Accordingly, the rate of interest for the year 2019-20 is 12.05%, 2020-21 is 11.25%, 2021-22 is 10.50% ,2022-23 is 10.50% and for the subsequent years the rate of interest of 10.50% has been considered (i.e., 1year SBI MCLR of 8.55% as on 1.4.2019 + 350 basis points, 1-year SBI MCLR of 7.75% as on 1.4.2020 + 350 basis points; 1-year SBI MCLR of 7.00% as on 1.4.2021 + 350 basis points; and 1year SBI MCLR of 7.00% as on 1.4.2022 + 350 basis points).

156. Accordingly, Interest on working capital is allowed as follows:

<i>(Rs. in lakh)</i>					
	2019-20	2020-21	2021-22	2022-23	2023-24
Working capital for O & M expenses (one month)	77.88	81.56	85.41	89.45	93.68
Working capital for Maintenance Spares (15% of O&M expenses)	140.18	146.80	153.74	161.01	168.63



	2019-20	2020-21	2021-22	2022-23	2023-24
Working capital for Receivables (45 days of fixed cost)	122.60	134.88	144.54	150.33	155.97
<b>Total Working Capital</b>	<b>340.65</b>	<b>363.25</b>	<b>383.70</b>	<b>400.79</b>	<b>418.28</b>
Rate of Interest	13.50%	11.25%	10.50%	10.50%	10.50%
<b>Total Interest on Working capital</b>	<b>41.05</b>	<b>40.87</b>	<b>40.29</b>	<b>42.08</b>	<b>43.92</b>

### **Other Claims**

157. In addition to the Depreciation, Interest on Loan, Return on Equity, O&M Expenses, Impact of pay revision, Security Expenses and Interest on Working Capital in accordance with the 2019 Tariff Regulations, the Petitioner has also claimed expenditure towards share of savings in interest cost due to loan restructuring, Share of P&G, Share of Common Office Expenditure, Mega Insurance Expenses and Expenditure for Subsidiary activity as given below:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
DVC's share of savings in interest cost due to loan restructuring	0.001	0.64	1.16	0.93	0.70
Share of P&G contribution	14.91	15.61	16.34	17.11	17.91
Share of Common Office expenses	0.79	0.84	0.85	0.74	0.67
Expenses Mega insurance & expenditure for Subsidiary activities	2.37	2.45	2.54	2.64	2.74
<b>Total</b>	<b>18.071</b>	<b>19.54</b>	<b>20.89</b>	<b>21.42</b>	<b>22.02</b>

### **DVC's share of savings in interest cost due to loan restructuring**

158. The Petitioner has claimed share of savings due to restructuring of loan from REC for the period 2019-24, on projection basis, as per Regulation 61(1) of the 2019 Tariff Regulations. In this regard, it is observed that REC loan specifically pertains to T&D system and is also not considered in the actual loan portfolio for the purpose of computation of WAROI in this order. Therefore, the claim for sharing of savings, due to loan restructuring of REC loan deserve no merit or consideration.

### **Share of P&G Contribution**

159. The Petitioner has claimed pension and gratuity contribution for the period 2019-24, over and above allowed O&M expense norms, on projection basis as follows:



<i>(Rs. in lakh)</i>				
<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
14.91	15.61	16.34	17.11	17.91

160. DVPCA has reiterated its submissions made on this issue for the period 2014-19. It has also pointed out that the projected P&G contribution for the period 2019-24, has been claimed by considering a yearly escalation of 4.70% on the Actuarial value, as on 31.3.2019 i.e., Rs.619420.12 lakh and the same has been apportioned to various stations, based on apportionment on Plant capacity basis. The Objector has also stated that the P&G contribution claimed in 2019-20 is higher by 108% than the P&G contribution claimed in 2018-19. It has further stated that the Petitioner has not furnished any justification for claiming such higher amount in 2019-20. DVPCA has further pointed out that during the process of framing the 2019 Tariff Regulations, all the generating companies including the Petitioner, had submitted the operational data for the past years, including O&M expenses, which also included the contribution towards P&G. It has added that the normative O&M expenses specified under Regulation 35 of the 2019 Tariff Regulations was only after giving due consideration to the requirement of the various generating companies including P&G contribution. In response, the Petitioner has reiterated its submissions in the matter of P&G fund in terms of its response to the objections raised in the period 2014-19.

161. The matter has been considered. It is observed that the normative O&M expenses includes a portion of contribution towards gratuity and pension, which is not separately quantifiable for the Petitioner. It is also noted that under the heading P&G contribution for the period 2014-19, the actual O&M expenses including P&G during the period 2014-19 are lower than the O&M expense norms allowable under the 2014-19 Tariff Regulations. Further, the normative O&M expenses determined by the Commission, while framing the 2019 Tariff Regulations, are based on the information furnished by various generating stations. In view of this, we are not inclined to allow P&G contribution for the period 2019-



24 at this stage.

### **Mega Insurance Expenses and Expenditure for Subsidiary activity**

162. The Petitioner has claimed the following projected expenditure during the period 2019-24 against the additional O&M expenses due to Mega Insurance and share of Subsidiary Activities.

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Mega Insurance Expenses	0.76	0.78	0.81	0.84	0.87
Share of Subsidiary Activities	1.61	1.67	1.73	1.80	1.86
<b>Total</b>	<b>2.37</b>	<b>2.45</b>	<b>2.54</b>	<b>2.64</b>	<b>2.74</b>

### **Mega Insurance Expenses**

163. The Petitioner has claimed total Rs. 4.07 lakh (Rs. 0.76 lakh in 2019-20, Rs. 0.78 lakh in 2020-21, Rs. 0.81 lakh in 2021-22, Rs. 0.84 lakh in 2022-23 and Rs. 0.87 lakh in 2023-24) in the period 2019-24 towards Mega Insurance expenses under Regulations 76 and 77 of the 2019 Tariff Regulations.

164. DVPCA has submitted that the Petitioner has not referred to any extraordinary factors that have necessitated additional insurance cover for its units. It has also submitted that any comprehensive insurance is always cost effective in comparison to individual insurance policies and hence, it is not clear as to how mega insurance could lead to additional O&M expenses. The Petitioner, in its rejoinder has reiterated its submissions made in its petition for the period 2014-19, on this issue.

165. The matter has been considered. It is observed that the Commission while specifying the O&M norms for the period 2019-24, had considered and factored the 'insurance expenses' as part of its calculations for O&M expense norms. Since the said regulations have been notified after extensive stakeholder consultations, we find no reason to exercise the power under Regulation 76 or Regulation 77 of the 2019 Tariff Regulations and grant relief to the Petitioner. In view of this, claim of the Petitioner under this head is not allowed.



### **Share of Subsidiary Activities**

166. The Petitioner has claimed total of Rs. 8.67 lakh (Rs. 1.61 lakh in 2019-20, Rs. 1.67 lakh in 2020-21, Rs. 1.73 lakh in 2021-22, Rs. 1.80 lakh in 2022-23 and Rs. 1.86 lakh in 2023-24) in the period 2019-24, towards Share of Subsidiary activities under Regulations 76 and 77 of the 2019 Tariff Regulations.

167. DVPCA has submitted that the Petitioner has also claimed contribution to subsidiary funds and has claimed the Return on Equity, Interest on Loan and Depreciation on the common assets namely Direction Office, Subsidiary Activities, Other Offices, R&D, IT Centre and Central Office for the period 2019-24 under the nomenclature “share of common office expenditures”. As such, the contribution to subsidiary fund is not allowable as the Return on Equity, Interest on Loan and Depreciation on the common assets have already been claimed separately. The Respondent has further submitted that the Commission, in its order dated 31.8.2016 in Petition No. 347/GT/2014, had disallowed the expenditure on subsidiary activity and the same was to be recovered as part of the normative O&M expenses. DVPCA, has also submitted that it has demonstrated that the actual O&M expenses, including the expenditure on subsidiary activity, for the period 2014-19, have been lower than the normative O&M expenses specified under the 2014 Tariff Regulations. Similarly, the normative O&M expenses provided under the 2019 Tariff Regulations would be sufficient to cover such expenses in the period 2019-24 tariff also. In response, the Petitioner has reiterated its submissions made during the period 2014-19.

168. The matter has been considered. It is noted that APTEL vide its judgement dated 23.11.2007 and Hon’ble Supreme Court judgement dated 23.7.2018, had observed that the apportioned expenditure associated with subsidiary activities can be recovered through electricity tariff. The Petitioner, may, at the time of truing up of tariff, for the period 2019-24, furnish the actual audited apportioned expenditure associated with subsidiary activities



along with detailed justification for consideration of the Commission. Accordingly, the claim of the Petitioner has not been considered at this stage.

### **Share of Common Office Expenditure**

169. The Petitioner has submitted that the projected expenditure pertaining to common office expenditure such as Direction Office, Central Office, Other Offices, Subsidiary activities, IT centre and R&D caters services to all generating stations as well as composite transmission and distribution systems. The Petitioner has stated that it has allocated the cost of common offices amongst its generating stations, on the basis of installed capacity and has claimed additional capital expenditure as under:

	<i>(Rs. in lakh)</i>				
	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Direction Office	60.21	60.21	60.21	60.21	60.21
Subsidiary Activities	114.93	114.93	114.93	114.93	114.93
Other Offices	219.28	231.91	250.29	265.43	151.45
R&D	183.01	175.44	167.87	165.66	165.66
IT	149.74	319.41	407.60	394.52	381.44
Central Office	809.38	747.16	668.93	435.29	435.29
<b>Total</b>	<b>1536.55</b>	<b>1649.04</b>	<b>1669.83</b>	<b>1436.05</b>	<b>1308.98</b>

170. The head-wise, additional capital expenditure claimed by the Petitioner towards various offices is as under:

	<i>(Rs. in lakh)</i>				
	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Sub Station equipment	132.00	66.39	222.42	15.52	0.00
Network Access Controller and Data Centre	960.00	1240.00	0.00	0.00	0.00
<b>Total</b>	<b>1092.00</b>	<b>1306.39</b>	<b>222.42</b>	<b>15.52</b>	<b>0.00</b>

171. The Petitioner has computed the Return on Equity, Interest on Loan and Depreciation on the Common Assets for the period 2019-24, based on the opening capital cost as on 1.4.2019, for different offices, and has apportioned them to each generating stations and T&D system, in proportion to the capital cost, claimed as on 31.3.2019. Further, the Petitioner has allocated the cost of common offices, amongst its generating stations, on the basis of installed capacity. Accordingly, the annual fixed charges claimed



for assets of common offices are as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Direction Office	60.21	60.21	60.21	60.21	60.21
Subsidiary Activities	114.93	114.93	114.93	114.93	114.93
Other Offices	219.28	231.91	250.29	265.43	151.45
R&D	183.01	175.44	167.87	165.66	165.66
IT	149.74	319.41	407.60	394.52	381.44
Central Office	809.38	747.16	668.93	435.29	435.29
<b>Total</b>	<b>1536.55</b>	<b>1649.04</b>	<b>1669.83</b>	<b>1436.05</b>	<b>1308.98</b>

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Common Office expenditure apportioned to all DVC generating stations	1423.20	1527.40	1546.65	1330.11	1212.42
Common Office expenditure apportioned to T&D	113.35	121.65	123.18	105.93	96.56
<b>Total</b>	<b>1536.55</b>	<b>1649.04</b>	<b>1669.83</b>	<b>1436.05</b>	<b>1308.98</b>

172. In line with the above, the Petitioner has claimed apportioned common office expenses, for this generating station as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Common Office Expenditure apportioned to THS	0.79	0.84	0.85	0.74	0.67

173. The matter has been considered. It is observed that the common office expenditures are associated with the various offices of the Petitioner, but not to subsidiary activities. In order to work out the common office expenses to be allowed as a part of determination of tariff for the period 2019-24, we have examined the additional capital expenditure claimed by the Petitioner. The Petitioner has claimed projected additional capital expenditure during the period 2019-24 as under:

(Rs. in lakh)

		2019-20	2020-21	2021-22	2022-23	2023-24
1	Fully automated microprocessor-based portable CT&PT Analyzer (CRITL)	35.00	0.00	0.00	0.00	0.00
2	10 kV Digital Insulation Tester (CRITM)	17.00	0.00	0.00	0.00	0.00
3	Relay Test Kit (CRITL)	80.00	0.00	0.00	0.00	0.00



4	Dielectric Frequency Response Analysis(DFRA) Test Kit (CRITL)	0.00	36.17	0.00	0.00	0.00
5	Flash Point of Transformer Oil Measurement Kit(CRITL)	0.00	4.70	0.00	0.00	0.00
6	3-Phase Portable Power Source (CRITM)	0.00	21.00	21.00	0.00	0.00
7	Laptop (CRITM)	0.00	4.52	4.52	0.00	0.00
8	Fully Automatic Three Phase Transformer TestKit (CRITM)	0.00	0.00	75.58	0.00	0.00
9	Swift Frequency Response Analysis (SFRA)Test Kit (CRITL)	0.00	0.00	21.72	0.00	0.00
10	Furan Test Kit (CRITL)	0.00	0.00	60.00	0.00	0.00
11	3-Phase Portable Reference Standard Meter (0.02 Class) (CRITM)	0.00	0.00	39.60	0.00	0.00
12	Line Impedance Measurement Kit	0.00	0.00	0.00	15.52	0.00
13	Network Access Controller, Next Generation Firewall (NGFW) and Networking Switches	160.00	40.00	0.00	0.00	0.00
14	Data Centre (Hardware & Licenses)	800.00	1200.00	0.00	0.00	0.00
	<b>Total</b>	<b>1092.00</b>	<b>1306.39</b>	<b>222.42</b>	<b>15.52</b>	<b>0.00</b>

174. As regards additional capital expenditure claimed for fully automated microprocessor-based portable CT&PT Analyser and 10 kV Digital Insulation Tester, the Petitioner has submitted that CT&PT analyser is required for replacement of the existing 220 KV & 132 KV CTs in DVC grid with 0.2 Accuracy Class CTs, as per CEA guidelines. As regards Relay Test Kit (CRITL); Dielectric Frequency Response Analysis (DFRA) Test Kit (CRITL); Flash Point of Transformer Oil Measurement Kit(CRITL); 3-Phase Portable Power Source (CRITM); Laptop (CRITM); Fully Automatic Three Phase Transformer Test Kit (CRITM); Swift Frequency Response Analysis (SFRA) Test Kit (CRITL); Furan Test Kit (CRITL); 3-Phase Portable Reference Standard Meter (0.02 Class) (CRITM); and Line Impedance Measurement Kit, the Petitioner has submitted that these items are required to facilitate testing, condition monitoring of various power equipment's and smart meters. As regards additional capital expenditure claimed for Network Access Controller, next generation Firewall (NGFW) and networking Switches, the Petitioner has submitted that in order to comply with cyber security guidelines, of MOP, GOI, NCIIPC network security layer are proposed to be established, so that access to the system is provided to authenticated



users only. As regard claim for Data centre, the Petitioner has submitted that the procurement of hardware and licenses for Oracle to host EBA and other DVC applications, website, Firewall, Managed Back-up services, Load Balancer, IPS and Log Servers, IT infrastructure servers like DHCP, Ex-Bus, DNS, Virtualization, Security Appliances and storage in a DRC at different seismic zone, has been planned to be completed during the years 2019-20 and 2020-21.

175. The matter has been considered. It is observed that the items mentioned under the head 'Substation Equipment's' are required for the efficient functioning of the substations (including generating stations' switchyards) and therefore, the claim is allowed. As regards Network Access Controller, next Generation Firewall (NGFW), Networking switches and Data Centre, it is observed that the proposed additional expenditure is for measures taken to strengthen cyber security, in terms of the MOP, GOI guidelines dated 12.4.2010 and therefore the claim is allowed. Further, considering the nature of works, additional capitalization claimed against the head 'IT Equipment' are allowed. Further, the Petitioner is directed to furnish additional information regarding the total expenditure incurred on this count, segregated claims during the periods 2014-19 and 2019-24, expenditure envisaged in future etc., along with supporting documents.

176. Based on the above, the total additional capital expenditure allowed under Common Office expenses for the period 2019-24 is summarised as follows:

*(Rs. in lakh)*

	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Sub Station Equipment	132.00	66.39	222.42	15.52	0.00
Network Access Controller and DataCentre	960.00	1240.00	0.00	0.00	0.00
<b>Total</b>	<b>1092.00</b>	<b>1306.39</b>	<b>222.42</b>	<b>15.52</b>	<b>0.00</b>



177. It is observed that that the Petitioner has worked out Common Office expenses for various offices, including Subsidiary activities. However, expenses of subsidiary activities will be dealt at the time of truing-up of tariff for the period 2019-24.

178. Accordingly, the annual fixed charges for Common offices have been worked out by considering the opening capital cost as on 1.4.2014. The annual fixed charges for Common Offices, as worked out has been apportioned to the generating stations / T&D systems of the Petitioner, based on the approved capital cost as on 31.3.2014 of each generating stations / T&D system and the same is subject to truing-up for the period 2019-24. Accordingly, the share of common office expenses, worked out and allocated to the generating station are as under:

*(Rs. in lakh)*

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	458.06	357.82	300.14	310.67	232.58
Interest on Loan	91.10	136.51	163.38	148.52	135.87
Return on Equity	517.46	553.96	577.23	580.86	581.10
<b>Total</b>	<b>1066.62</b>	<b>1048.29</b>	<b>1040.75</b>	<b>1040.05</b>	<b>949.55</b>

*(Rs. in lakh)*

	Capital Cost as on 1.4.2014	Year wise share of common office expenses for all DVC Generating stations and T&D systems				
		2019-20	2020-21	2021-22	2022-23	2023-24
All DVC Generating stations	2036943.91	981.93	965.06	958.12	957.47	874.16
T&D	175678.95	84.69	83.23	82.63	82.58	75.39
<b>Total</b>	<b>2212622.86</b>	<b>1066.62</b>	<b>1048.29</b>	<b>1040.75</b>	<b>1040.05</b>	<b>949.55</b>

*(Rs. in lakh)*

<b>Common Office Expenditure</b>	2019-20	2020-21	2021-22	2022-23	2023-24
Common Office Expenditure apportioned to Tilaiya Hydel Power Station	0.54	0.53	0.53	0.53	0.48

### **Annual Fixed Charges allowed.**

179. Based on the above discussion, the annual fixed charges allowed for the generating station is summarized as follows:



(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	0.00	33.35	48.08	48.08	48.08
Interest on loan	0.00	9.45	17.24	13.91	10.59
Return on Equity	21.61	31.71	41.80	41.80	41.80
Interest on Working Capital	41.05	40.87	40.29	42.08	43.92
O&M Expenses	900.17	943.08	988.03	1035.13	1084.47
Security Expenses	34.34	35.61	36.93	38.30	39.72
<b>Sub-Total (A)</b>	<b>997.17</b>	<b>1094.06</b>	<b>1172.37</b>	<b>1219.31</b>	<b>1268.58</b>
Share of Common Office Expenditure	0.54	0.53	0.53	0.53	0.48
<b>Sub-Total (B)</b>	<b>0.54</b>	<b>0.53</b>	<b>0.53</b>	<b>0.53</b>	<b>0.48</b>
<b>Total Annual Fixed Charges (C=A+B)</b>	<b>997.71</b>	<b>1094.60</b>	<b>1172.90</b>	<b>1219.84</b>	<b>1269.06</b>

Note: (1) All figures are on annualized basis. (2) All figures under each head have been rounded. The figure in total column in each year is also rounded. As such the sum of individual items may not be equal to the arithmetic total of the column

180. The annual fixed charges approved as above are subject to truing up in terms of Regulation 13 of the 2019 Tariff Regulations.

#### **Normative Annual Plant Availability Factor**

181. The Petitioner has claimed Normative Annual Plant Availability Factor (NAPAF) of 80% for the period 2019-24. Clause (4) of Regulation 50 (A) of the 2019 Tariff Regulations provides for NAPAF of 80% for the generating station. Accordingly, NAPAF of 80% has been considered for the generating station for the period 2019-24.

#### **Design Energy**

182. The Commission has, in this order, while truing up of tariff for the period 2014-19, approved the annual design energy of 9.97 MU in respect of the generating station. The same has been considered for the generating station, for the period 2019-24. However, the Petitioner is directed to review the design energy and submit the same for consideration and final decision of the Commission.

#### **Application Fee and Publication expenses**

183. The Petitioner has sought the reimbursement of filing fee paid by it for filing the tariff petition for the period 2019-24 and for publication expenses. The Petitioner shall be entitled



for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

184. Similarly, RLDC Fees & Charges paid by the Petitioner in terms of the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Dispatch Centre and other related matters) Regulations, 2019, shall be recovered from the beneficiaries. In addition, the Petitioner is entitled for recovery of statutory taxes, levies, duties, cess etc. levied by the statutory authorities in accordance with the 2019 Tariff Regulations

### **Summary**

185. The annual fixed charges allowed in this order for the period 2019-24 is summarized below:

	<i>(Rs. in lakh)</i>				
	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Claimed	1027.87	1137.05	1226.66	1272.89	1321.61
<b>Allowed</b>	<b>997.71</b>	<b>1094.60</b>	<b>1172.90</b>	<b>1219.84</b>	<b>1269.06</b>

186. Petition No. 572/GT/2020 is disposed of in terms of the above.

**Sd/-**  
**(Pravas Kumar Singh)**  
**Member**

**Sd/-**  
**(Arun Goyal)**  
**Member**

**Sd/-**  
**(I.S. Jha)**  
**Member**

