

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 278/TT/2015**

**Coram:**

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

**Date of Order : 20.09.2017**

**In the matter of:**

Determination of transmission tariff for Assets (11 nos.) under "Eastern Region Strengthening Scheme - III (ERSS-III)" in Eastern Region for the 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

**And in the matter of:**

Power Grid Corporation of India Ltd.  
'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon -122 001 (Haryana).

.....**Petitioner**

**Versus**

1. Bihar State Power (Holding) Company Ltd  
(Formerly Bihar State Electricity Board -BSEB)  
Vidyut Bhavan, Bailey Road, Patna — 800 001
2. West Bengal State Electricity Distribution Company  
Bidyut Bhawan, Bidhan Nagar  
Block DJ, Sector-II, Salt Lake City  
Calcutta - 700 091
3. Grid Corporation of Orissa Ltd.  
Shahid Nagar, Bhubaneswar - 751 007
4. Damodar Valley Corporation  
DVC Tower, Maniktala  
Civic Centre, VIP Road, Calcutta - 700 054



5. Power Department  
Govt. of Sikkim, Gangtok - 737 101
6. Jharkhand State Electricity Board  
In front of Main Secretariat  
Doranda, Ranchi - 834002
7. Jharkhand Urja Sancharan Nigam Ltd.  
Engineering Building, HEC,  
Dhurwa, Ranchi- 834004
8. Odisha Power Transmission Corporation Ltd. (OPTCL)  
Acharya Nagar, Bhubaneswar,  
Odisha 751013

....Respondents

The following were present:-

For Petitioner: Shri S. S. Raju, PGCIL  
Shri M. M. Mondal, PGCIL  
Shri Rakesh Prasad, PGCIL  
Shri Vivek Kumar Singh, PGCIL

For Respondent: Shri R. B. Sharma, Advocate, OPTCL  
Shri S. R. Sarangi, OPTCL

### **ORDER**

The present petition has been filed by Power Grid Corporation of India Ltd. ("the petitioner") for approval of transmission tariff of 01 no. 80 MVAR Bus Reactor at Duburi Sub-station (referred to as "**Asset I**"); LILO of 1<sup>st</sup> circuit of 400 kV D/C Baripada - Mendhasal Transmission Line at Duburi Sub-station alongwith associated bays (referred to as "**Asset II**"); 315 MVA ICT-1 at Chaibasa Sub-station (referred to as "**Asset III**"); LILO of 2<sup>nd</sup> circuit of 400 kV D/C Jamshedpur-Rourkela Transmission Line alongwith associated bays at Chaibasa Sub-station



(referred to as “**Asset IV**”); 02 nos. 220 kV line bays at Chaibasa Sub-station (referred to as “**Asset V**”); LILO of 400 kV D/C Baripada-Mendhasal line and associated bays at Pandiabilli GIS (referred to as “**Asset VI**”); 1 no. 500 MVA, 3 phase 400/220 kV, Transformer (1<sup>st</sup>) and associated bays at Pandiabilli GIS alongwith 3 nos 220 kV line bays at Pandiabilli (referred to as “**Asset VII**”); 1 no 500 MVA, 3 phase 400/220 kV, Transformer (2nd) and associated bays at Pandiabilli GIS alongwith 3 nos 220 kV line bays at Pandiabilli. (referred to as “**Asset VIII**”); Asset IX: 1 No. 80 MVAR, 400kV Bus Reactor and associated bay at Pandiabilli GIS (referred to as “**Asset IX**”); Shifting of 1 No.63 MVAR, 400 kV Line Reactor-I from Mendhasal end of 400 kV D/C Baripada-Mendhasal Transmission Line to (Anticipated) Pandiabilli end (Switchable) of 400 kV D/C Baripada-Pandiabilli Transmission Line and associated bay at Pandiabilli GIS (referred to as “**Asset X**”); Shifting of 1 No. 63 MVAR, 400 kV Line Reactor-II from Mendhasal end of 400 kV D/C Baripada-Mendhasal Transmission Line to Pandiabilli end (Switchable) of 400kV D/C Duburi-Pandiabilli Transmission Line and associated bay at Pandiabilli GIS 01 no. 80 MVAR Bus Reactor at Duburi Sub-station (referred to as “**Asset XI**”); under "Eastern Region Strengthening Scheme - III (ERSS-III)" in Eastern Region under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from date of commercial operation to 31.3.2019 for the subject assets.



2. The respondents are distribution licensees or electricity departments or power procurement companies of States, who are procuring transmission service from the petitioner, mainly beneficiaries of Eastern Region.

3. The brief facts of the case are as follows:-

(a) The investment approval for the project was accorded by Board of Directors of the petitioner company vide Memorandum no. C/CP/ERSS-III dated 7.7.2010 with an estimated cost of ₹127280.00 lakh including IDC of ₹8152.00 lakh, based on price level of 1<sup>st</sup> quarter of 2010. The total approved apportioned cost for the instant assets is ₹25970.37 lakh. The petitioner has submitted the RCE vide affidavit dated 27.4.2016, accorded by the Board of Directors with an apportioned approved cost of ₹59473.54 lakh for instant assets.

(b) The scope of work under "Eastern Region Strengthening Scheme - III (ERSS-III)" in Eastern Region is as follows:-

**Transmission line**

- (i) Sasaram - Daltonganj 400 kV D/C line
- (ii) Mendhasal - Ultara 400 in D/C line\***
- (iii) LILO of Kahalgaon - Biharliarif 400 kV D/C line (1st line) at Lakhisarai
- (iv) LILO of Kahalgaon - Biharliarif, 100 kV D/C line (2nd line) at Banka
- (v) LILO of Meramundali-Jeypore 400 kV S/c line at Bolangir
- (vi) LILO of - Baripada 400 kV S/c line at Keonjhar
- (vii) LILO of one circuit of Baripada - Mendhasal 400 kV D/c line at Dubri (OPTCL)**
- (viii) LILO of both circuits of Jamshedpur-Rourkela 400 kV D/c line at Chalbasa (out of the two LILOs bussing of**



**one LILO- at Chaibasa, the 2nd LILO would be routed through Chalbasa but presently not bused at Chaibasa)**

**Sub-stations:**

- (i) 2x315 MVA, 400/220 kV sub-station at Daltonganj (new)
- (ii) 2x200 MVA, 400/132 kV sub-station at Lakhisaral (new)
- (iii) 2x200 MVA, 400/132 kV sub-station at Banka (new)
- (iv) 2x315 MVA, 400/220 kV sub-station at Bolangir (new)
- (v) 2x315 MVA, 400/220 kV sub-station at Keonjhar (new)
- (vi) 2x315 MVA, 400/220 kV sub-station at Chalbasa (new)**
- (vii) 2x315 MVA, 400/220 kV sub-station at Uttara (new)\***
- (viii) Extension at 400 kV Sasaram Sub-station (POWERGRID) and 400 kV Dubri (OTPCL) & Mendhasal Sub-stations (OTPCL)**

\*The establishment of 2X315 MVA, 400/200 kV sub-station at Uttara in Odisha along with 400 kV Uttara-Mendhasal D/C line was approved as a part of Eastern Region Strengthening Scheme (ERSS-III) in the SCM held on 14.9.2009. As the land identified for Uttara sub-station was earmarked for international airport, Powergrid along with OPTCL identified another land at Begunia. Due to land acquisition problems at Begunia, OPTCL again identified a land at Pattanaikaya between Bhubaneswar and Puri. Hence, establishment of 400/220 kV, 2X315 MVA GIS at Pattanaikya along with a 400 kV D/C line at Mendhasal was discussed and agreed in the standing Committee meeting held on 8.2.2012. In the meeting, it was also decided that Powergrid and OPTCL would make a joint site visit to firm up the sub-station land.

Further, after the site visit, it was decided that the proposed GIS at Pattanaikaya would be relocated to Pandiabili. It was also decided to LILO Baripada-Mendhasal D/C line at Pandiabili, instead of a direct D/C line between Mendhasal and Pandialli.

- (c) The Annual Fixed Charges for the instant assets were allowed under Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the PoC charges vide order dated 25.1.2016 based on anticipated COD.



(d) The petitioner, vide affidavit dated 27.5.2016, has submitted revised tariff forms based on actual/anticipated COD and has combined Asset VI, VII, VIII, IX, X and XI into a single asset (referred to as “**Asset 6**”), with revised nomenclature for all the assets as follows:-

<b>Asset as per initial petition</b>	<b>Asset as per revised affidavit dated 27.5.2016</b>
<b>Asset I:</b> 01 no. 80 MVAR Bus Reactor at Duburi Sub-station	<b>Asset 1:</b> 01 no. 80 MVAR Bus Reactor at Duburi Sub-station (referred as “ <b>Asset 1</b> ”)
<b>Asset II:</b> LILO of circuit I of 400kV D/C Baripada - Mendhasal Transmission line at Duburi Sub-station along with associated bays	<b>Asset 2:</b> LILO of circuit I of 400kV D/C Baripada - Mendhasal Transmission line at Duburi Sub-station along with associated bays (referred as “ <b>Asset 2</b> ”)
<b>Asset III:</b> 315 MVA ICT-1 at Chaibasa Sub-station	<b>Asset 3:</b> 315 MVA ICT-1 at Chaibasa Sub-station (referred as “ <b>Asset 3</b> ”)
<b>Asset IV:</b> LILO of 2nd Ckt. Of 400 kV D/C Jamshedpur-Rourkela Transmission line alongwith associated bays at Chaibasa Sub-station	<b>Asset 4:</b> LILO of 2nd Ckt. Of 400 kV D/C Jamshedpur-Rourkela Transmission line alongwith associated bays at Chaibasa Sub-station (referred as “ <b>Asset 4</b> ”)
<b>Asset V:</b> 02 nos 220 kV line bays at Chaibasa Sub-station	<b>Asset 5:</b> 02 nos 220 kV line bays at Chaibasa Sub-station (referred as “ <b>Asset 5</b> ”)
<b>Asset VI:</b> LILO of 400kV D/C Baripada- Mendhasal line and associated bays at Pandiabilli GIS	<b>Asset 6:</b> LILO of 400kV D/C Baripada- Mendhasal line and associated bays at Pandiabilli GIS, 02 nos 500MVA, 3 phase 400/220 kV, Transformer and associated bays, 1 No.80 MVAR, 400 kV bus reactor and associated bays, 2 nos 63 MVAR, 400 kV switchable line reactor both shifted from Mendhasal (as fixed Line Reactor) and associated bays along with 06 nos 220 kV line bays at Pandiabilli GIS. (referred as “ <b>Asset-6</b> ”)
<b>Asset VII:</b> 01 no 500MVA, 3 phase 400/220kV, Transformer and associated bays at Pandiabilli GIS alongwith 3 nos 220 kV line bays at Pandiabilli GIS	
<b>Asset VIII:</b> 01 no 500 MVA , 3 phase 400/220kV, Transformer and associated bays at Pandiabilli GIS alongwith 3 nos 220 kV line bays at Pandiabilli GIS	
<b>Asset IX:</b> 1 No.80 MVAR, 400 kV bus reactor and associated bays at Pandiabilli GIS	
<b>Asset X:</b> Shifting of 1 No. 63 MVAR, 400kV Line Reactor-I from Mendhasal end of 400 kV D/C Bariapada - Mendhasal Transmission line and associated bay at Pandiabilli GIS	
<b>Asset XI:</b> Shifting of 1 No. 63 MVAR, 400kV Line Reactor-II from	



Mendhasal end of 400 kV D/C Bariapada - Mendhasal Transmission line and associated bay at Pandiabilli GIS	
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(e) Further, the petitioner vide affidavit dated 23.3.2017 has bifurcated Asset 6 into Asset '6a' and Asset '6b'. The petitioner has submitted that 1 no. of 500 MVA ICT (2<sup>nd</sup>), 3 phase 400/220 kV transformer and associated bays at Pandiabilli GIS (referred as 'Asset 6b') has not been commissioned. However, "LILO of 400 kV D/C Bariapada - Mendhasal line and associated bays at Pandiabilli GIS, 01 nos 500MVA, 3 phase 400/220 kV, transformer and associated bays, 1 No.80 MVAR, 400 kV bus reactor and associated bays, 2 nos 63 MVAR, 400 kV switchable line reactor both shifted from Mendhasal (as fixed Line Reactor) and associated bays alongwith 06 nos 220 kV line bays at Pandiabilli GIS" (referred as 'Asset 6a') was commissioned on 31.7.2016.

(f) The petitioner has claimed the transmission charges vide affidavit dated 27.5.2016 as under:-

(₹ in lakh)

Asset 1					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	40.28	42.35	45.67	48.71	48.71
Interest on Loan	47.94	46.46	46.45	45.73	41.21
Return on Equity	44.88	47.42	51.14	54.54	54.54
Interest on Working Capital	6.40	6.58	6.85	7.10	7.12
O&M Expenses	60.30	62.30	64.37	66.51	68.71
<b>Total</b>	<b>199.80</b>	<b>205.11</b>	<b>214.48</b>	<b>222.59</b>	<b>220.29</b>



(₹ in lakh)

Asset 2				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	153.08	250.54	252.51	252.51
Interest on Loan	194.54	298.83	276.92	252.32
Return on Equity	171.38	280.50	282.71	282.71
Interest on Working Capital	16.60	26.88	26.73	26.43
O&M Expenses	84.29	140.85	145.53	150.35
<b>Total</b>	<b>619.89</b>	<b>997.60</b>	<b>984.40</b>	<b>964.32</b>

(₹ in lakh)

Asset 3					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	17.66	94.89	109.40	126.00	130.98
Interest on Loan	24.60	126.20	137.41	150.72	145.61
Return on Equity	20.84	112.20	130.17	151.20	157.51
Interest on Working Capital	2.55	13.52	14.72	16.10	16.44
O&M Expenses	19.84	105.91	109.43	113.06	116.81
<b>Total</b>	<b>85.49</b>	<b>452.72</b>	<b>501.13</b>	<b>557.08</b>	<b>567.35</b>

(₹ in lakh)

Asset 4				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	38.85	104.51	119.49	123.98
Interest on Loan	44.82	114.40	121.98	116.58
Return on Equity	43.50	117.01	133.78	138.80
Interest on Working Capital	3.15	8.30	9.22	9.34
O&M Expenses	4.10	10.23	10.57	10.92
<b>Total</b>	<b>134.42</b>	<b>354.45</b>	<b>395.04</b>	<b>399.62</b>

(₹ in lakh)

Asset 5				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	3.72	56.53	67.80	70.18
Interest on Loan	5.05	74.04	83.43	80.35
Return on Equity	4.85	73.60	87.92	90.81
Interest on Working Capital	0.69	9.68	10.65	10.87
O&M Expenses	6.80	90.12	93.10	96.20
<b>Total</b>	<b>21.11</b>	<b>303.97</b>	<b>342.9</b>	<b>348.41</b>





(₹ in lakh)

<b>Asset 6</b>			
<b>Particulars</b>	<b>2016-17 (pro-rata)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	1599.28	2115.64	2194.84
Interest on Loan	1902.11	2352.48	2250.04
Return on Equity	1835.60	2427.50	2516.17
Interest on Working Capital	165.63	211.76	215.03
O&M Expenses	774.37	959.99	991.91
<b>Total</b>	<b>6276.99</b>	<b>8067.37</b>	<b>8167.99</b>

(g) The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:-

(₹ in lakh)

<b>Asset 1</b>					
<b>Particulars</b>	<b>2014-15 (pro-rata)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O & M Expenses	5.03	5.19	5.36	5.54	5.73
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
Receivables	33.30	34.19	35.75	37.10	36.72
Total	47.38	48.73	50.77	52.62	52.76
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>6.40</b>	<b>6.58</b>	<b>6.85</b>	<b>7.10</b>	<b>7.12</b>

(₹ in lakh)

<b>Asset 2</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O & M Expenses	11.36	11.74	12.13	12.53
Maintenance Spares	20.45	21.13	21.83	22.55
Receivables	167.10	166.27	164.07	160.72
Total	198.91	199.14	198.03	195.80
Rate of Interest (%)	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>16.60</b>	<b>26.88</b>	<b>26.73</b>	<b>26.43</b>

(₹ in lakh)

<b>Asset 3</b>					
<b>Particulars</b>	<b>2014-15 (pro-rata)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O & M Expenses	8.54	8.83	9.12	9.42	9.73
Maintenance Spares	15.38	15.89	16.41	16.96	17.52
Receivables	73.62	75.45	83.52	92.85	94.56
Total	97.54	100.17	109.05	119.23	121.81
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>2.55</b>	<b>13.52</b>	<b>14.72</b>	<b>16.10</b>	<b>16.44</b>



(₹ in lakh)

<b>Asset 4</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O & M Expenses	0.83	0.85	0.88	0.91
Maintenance Spares	1.49	1.53	1.59	1.64
Receivables	54.13	59.08	65.84	66.60
Total	56.45	61.46	68.31	69.15
Rate of Interest (%)	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>3.15</b>	<b>8.30</b>	<b>9.22</b>	<b>9.34</b>

(₹ in lakh)

<b>Asset 5</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O & M Expenses	7.27	7.51	7.76	8.02
Maintenance Spares	13.08	13.52	13.97	14.43
Receivables	45.13	50.66	57.15	58.07
Total	65.48	71.69	78.88	80.52
Rate of Interest (%)	13.50	13.50	13.50	13.50
<b>Interest</b>	<b>0.69</b>	<b>9.68</b>	<b>10.65</b>	<b>10.87</b>

(₹ in lakh)

<b>Asset 6</b>			
<b>Particulars</b>	<b>2016-17 (pro-rata)</b>	<b>2017-18</b>	<b>2018-19</b>
O & M Expenses	77.44	80.00	82.66
Maintenance Spares	139.39	144.00	148.79
Receivables	1255.40	1344.56	1361.33
Total	1472.23	1568.56	1592.78
Rate of Interest (%)	13.50	13.50	13.50
<b>Interest</b>	<b>165.63</b>	<b>211.76</b>	<b>215.03</b>

5. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments have been received from the public in response to the notices published by the petitioner. The hearing in this matter was held on 27.6.2016. Odisha Power Transmission Corporation Ltd. (hereinafter to be referred as "OPTCL"), Respondent No.8, has filed its reply vide affidavit dated 29.12.2015 and raised the issues with regard to the COD of Asset-



1. Having heard the representatives of the petitioner and respondents and perused the material on record, we proceed to dispose of the petition.

### **Commercial Operation Date (“COD”)**

6. Regulation 4(3) of the 2014 Tariff Regulations provides as follows:-

**“4. Date of Commercial Operation:** The date of commercial operation of a generating station or unit or block thereof or a transmission system or element thereof shall be determined as under:

xxx

(3) Date of commercial operation in relation to a transmission system shall mean the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end:

xxx

xxx

(ii) in case a transmission system or an element thereof is prevented from regular service for reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system, the transmission licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof.

xxx

xxx”

7. The petitioner has sought approval of COD with regard to Asset 1 in accordance with proviso (ii) of Regulation 4 (3) of the 2014 Tariff Regulations. The petitioner has submitted that due to non-readiness of corresponding associated system of OPTCL, the petitioner was not able to provide services for the reasons not attributable to itself, its suppliers, or contractors, but on account of the delay in commissioning of downstream assets by OPTCL.

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8. The petitioner vide affidavit dated 23.3.2017 has bifurcated Asset 6 into Asset '6a' and Asset '6b'. The petitioner submitted that 1 no. of 500 MVA ICT (2<sup>nd</sup>), 3 phase 400/220 kV Transformer and associated bays at Pandiabilli GIS (referred as 'Asset 6b') has not been commissioned. However, "LILO of 400 kV D/C Baripada - Mendhasal line and associated bays at Pandiabilli GIS, 01 nos 500MVA, 3 phase 400/220 kV, transformer and associated bays, 1 No.80 MVAR, 400 kV bus reactor and associated bays, 2 nos 63 MVAR, 400 kV switchable line reactor both shifted from Mendhasal (as fixed Line Reactor) and associated bays alongwith 06 nos 220 kV line bays at Pandiabilli GIS" (referred as 'Asset 6a') was commissioned on 31.7.2016.

9. The petitioner has claimed the date of the commercial operation as 1.4.2014, 19.8.2015, 22.1.2015, 2.11.2015, 3.3.2016 and 31.7.2016 for Assets 1, 2, 3, 4, 5 and 6a respectively. The petitioner has submitted the RLDC trial run certificate dated 23.6.2016, 18.3.2015 and 31.5.2016 for Asset 2, 3 and 5 respectively. The petitioner has also submitted RLDC certificate dated 22.7.2016, 1.8.2016 and 22.8.2016 for Asset 6a. The petitioner has not submitted the RLDC certificates for Asset 1 and 4.

10. During the hearing held on 27.6.2016, learned counsel of OPTCL raised the issue of COD of Asset-1 and stated that the petitioner's claim regarding the charging of the 80 MVAR Bus Reactor at Duburi Sub-station on 1.4.2014 is not correct. Further, the learned counsel of OPTCL submitted that approval of CEA



for the energisation of Bus Reactor was issued vide letter dated 27.1.2014, however, the LILO of 400 kV Baripada-Mendhasal ckt-II at Duburi Sub-station for energisation was approved by CEA on 13.7.2015. Subsequently, the petitioner requested OPTCL for clearance regarding energisation of the 80 MVAR Bus Reactor and associated Bay Extension at Duburi Sub-station vide letter dated 12.8.2015. OPTCL accorded permission for the same vide letter dated 14.8.2015. In response to the above submission of the learned counsel of OPTCL, the petitioner agreed that power flow in 80 MVAR Bus Reactor started only from 14.8.2015 and consequently agreed to shift its claim of COD of Asset-1 from 1.4.2014 to 14.8.2015.

11. As regards Asset-4, the representative of ERLDC during hearing on 27.6.2016 has submitted that the LILO of 2<sup>nd</sup> ckt of 400 kV D/C Jamshedpur-Rourkela transmission line along with associated bays at Chaibasa Sub-station is not charged yet. In response, the petitioner has submitted that the scope of the work was discussed in ERPC meeting dated 30.12.2008 and the asset was commissioned according to scope of work approved in the RPC. ERLDC has further submitted that in such a case, RLDC certificate cannot be issued and they can only issue the energization certificate. The petitioner is directed to take up the matter with ERLDC and satisfy that all the stages in commissioning of an asset are fulfilled in case of Asset-4. Following table depicts the petitioner's claim of COD and COD approved by the Commission:-



Sl. No.	Asset	COD claimed	RLDC certificate	COD allowed
1.	Asset 1	1.4.2014	-	-
2.	Asset 2	19.8.2015	19.8.2015	19.8.2015
3.	Asset 3	22.1.2015	22.1.2015	22.1.2015
4.	Asset 4	2.11.2015	-	-
5.	Asset 5	3.3.2016	3.3.2016	3.3.2016
6.	Asset 6a	31.7.2016	31.7.2016	31.7.2016
7.	Asset 6b	Not yet commissioned	-	-

12. The petitioner has not submitted RLDC trial run certificate for Asset 1, 4 and 6b. In absence of the RLDC certificates, COD of Assets 1, 4 and 6b are not approved. Accordingly, tariff is not allowed for Asset 1, 4 and 6b in the instant order. However, the petitioner may approach the Commission separately for claiming tariff of Asset 1, 4 and 6b after their commissioning. The tariff is worked out from actual CODs to 31.3.2019 in respect of Asset 2, 3, 5 and 6a.

### **Capital Cost**

13. The petitioner has submitted revised forms with Auditor's Certificate vide affidavit received on 27.5.2016. Further, the capital cost of Asset 6a has been revised by the petitioner vide affidavit dated 23.3.2017. In the revised tariff forms and Auditor`s certificates, the petitioner has claimed the following costs:-

Assets	Approved apportioned cost as per FR	Revised Approved apportioned cost as per RCE	Capital cost as on COD	Additional capital expenditure					Estimated completion cost as on 31.3.2019
				2014-15	2015-16	2016-17	2017-18	Total	
Asset 2	3265.65	5488.27	4670.53	0.00	36.99	74.86	0.00	111.85	4782.38
Asset 3	2715.00	2817.83	1827.07	20.23	105.87	498.02	213.43	837.55	2664.62
Asset 5	1340.85	1736.65	1086.09	0.00	0.00	315.10	135.04	450.14	1536.23
Asset 6a	15170.01	45758.20	31831.64	0.00	0.00	4172.30	1859.00	0.00	37862.94



14. Regulation 9 (1), 9(2) and 10 (1) of the 2014 Tariff Regulations specify as follows:-

**“9. Capital Cost:** (1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.

(2) The Capital Cost of a new project shall include the following:

- a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
- c) Increase in cost in contract packages as approved by the Commission;
- d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;
- e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;
- f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;
- g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and
- h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.”

**“10. Prudence Check of Capital Expenditure:** The following principles shall be adopted for prudence check of capital cost of the existing or new projects:

(1) In case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out taking into consideration the benchmark norms specified/to be specified by the Commission from time to time: Provided that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the capital expenditure, financing plan, interest during construction, incidental expenditure during construction for its reasonableness, use of efficient technology, cost over-run and time over-run, competitive bidding for procurement and such other matters as may be considered appropriate by the Commission for determination of tariff.”

15. The capital cost considered for the purpose of tariff subjected to prudence check is discussed in subsequent paragraphs.

### **Time Overrun**

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16. As per the Investment Approval, instant assets were scheduled to be commissioned by 1.12.2012. The actual date of the commercial operation approved by the Commission at Paragraph 11 for Asset 2, 3, 5 and 6a are 19.8.2015, 22.1.2015, 3.3.2016 and 31.7.2016 respectively. Hence there is time overrun of 991 days, 782 days, 1188 days and 1338 days in commissioning of the Assets 2, 3, 5 and 6a respectively. The petitioner has submitted following reasons for time overrun:-

## **Asset 2**

### **Delay due to downstream**

17. The petitioner has submitted that the network corresponding to the subject asset was under the scope of OPTCL and it has continuously followed-up with OPTCL for timely commissioning of the 400 kV network (Transmission line and bays) matching with the petitioner's project. However it was not feasible to delay the petitioner's project further to the extent to match with the OPTCLs 400 kV network at Duburi Sub-station as these time extensions would mean obvious implications for the petitioner which would have a bearing on the project cost. The petitioner vide letters dated 9.12.2013, 31.12.2013, 14.1.2014 and 18.3.2014 requested OPTCL for necessary shut down of 220 kV system for making physical electrical connections in absence of non-readiness of OPTCL's 400 kV system. The petitioner has submitted that despite persistent request to obtain the shutdown for making these electrical connections, the same could not be materialized on time.





18. The petitioner has submitted that the LOA (Letter of Award) for tower commissioning was awarded on 10.12.2010 and the work related to tower spotting, preparation of Land schedule, and forest proposal was completed on 24.1.2012.

**Delay due to Severe rains & floods:-**

19. The petitioner has submitted that a major part of the line is passing through Jajpur district and the State of Odisha was severely affected by flood in river Brahmani & Baitarani during September, 2011 due to which Jajpur district remained cut off for many days, leading to delays.

**Due to delay in forest clearances**

20. The petitioner has submitted that 20 locations of approximately 4.6 km were affected due to delay in getting forest clearances. It has submitted that forest clearance proposal was submitted to the State forest officer department at Bhubaneswar on 24.1.2012 and the Stage II clearance was received on 21.11.2014. The petitioner has further submitted that generally it takes around 10-12 months but in this case it has taken around 34 months. Therefore this led to an additional delay of 22 months.

**Due to ROW constraints**

21. The petitioner has submitted that the construction personnel had been beaten up and the contractors were threatened by local villagers along with anti social elements to stop the work, which further led to a delay of 6 months.



### **Due to court Cases**

22. The petitioner has submitted that the land owners had filed cases against the petitioner and court took around 4 months in to take a decision on the issues of land. The petitioner had filed affidavit in court against land owners on 12.4.2013 and case was disposed of on 30.1.2015.

23. We have considered the submission of the petitioner and respondents. After examining the documents submitted by the petitioner in support of its claim, it is evident that OPTCL permitted to execute required electrical and civil works vide letter dated 11.6.2013 and work was started by the petitioner after such permission. The petitioner had written letter to OPTCL on 9.12.2013 stating that assets were expected to be commissioned on 25.12.2013. The petitioner further wrote letters to OPTCL dated 14.1.2014 and 18.3.2014 intimating commissioning of its system and requesting OPTCL to charge the line. It is observed from the letters that the petitioner had consistently communicated with OPTCL regarding handing over of land, execution of electrical and civil works at Duburi sub-station and had taken proper steps to apprise OPTCL regarding the status of commissioning of its assets, so that it can plan accordingly. It is evident from copy of news dated 9.9.2011 and 23.9.2011 submitted by the petitioner that work could not be started due to severe rains and flood. Further, it is observed that the petitioner has not submitted any letter in support of its claim of Stage-II clearance. However, the petitioner has submitted other letters with regard to forest clearance. Hence, we are condoning the delay provisionally and the



petitioner is directed to submit the Stage II clearance letter at the time of truing up.

24. It is observed that ROW issue got resolved only on 16.4.2015. The petitioner has written several letters to the Inspector in charge, SP, Tehsildar, Additional DM, Principal Secretary, Govt. of Odisha, Collector, Sub-collector and SDM. The petitioner has also submitted the copies of court cases which has been disposed of on 30.1.2015.

25. Hence, we are of the view that the delay due to ROW issues, forest clearance, severe rains and court cases were uncontrollable. Also the delay due to the non readiness of the downstream system of OPTCL cannot be attributed to the petitioner. Hence the total delay of 991 days in case of Asset-2 is condoned.

### **Asset 3 and 5**

26. As per the Investment approval the scheduled COD was 1.12.2012 for the instant asset. The petitioner has claimed the date of the commercial operation as 22.1.2015 for Asset 3 and 3.3.2016 for asset 5. There is time overrun of 782 days and 1188 days in commissioning of the Asset 3 and Asset 5. The petitioner has submitted following reasons for time overrun:-

### **Delay due to Land Acquisition**

27. The petitioner has submitted that the land acquisition process at Chaibasa sub-station was started on 31.08.2009 but the process of land acquisition, for the land initially identified by the petitioner near village Anchu could not be taken up

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by the Government Authority due to objections and stiff resistance of local villagers. It has submitted that an alternate land near village Ujiharee was suggested by the Authority and suitability of the land was sought from the petitioner vide letter dated 12.8.2010. The petitioner communicated the suitability of the land vide its letter dated 16.9.2010. However, the acquisition of this land was also delayed, since as per records of the revenue Authority, a proposal was earlier sent by them for acquisition of this land for M/s Rungata Mines Limited. As a result, 2<sup>nd</sup> alternate land was to be identified and the petitioner had to put up a fresh request for the acquisition of the land. The procedure for acquisition of private land under Jharkhand Voluntary Land Acquisition Rule 2010 required agreement with Land Acquisition of Jharkhand and individual land owners also. In-spite of regular follow-ups by the petitioner, the possession of the land could be handed over to the petitioner after lease agreement is signed between the petitioner and Govt. of Jharkhand on 18.6.2013. Thus, the process of land acquisition took around 44-45 months.

### **Non-readiness of the downstream system**

28. The petitioner has submitted that downstream system network with regards to Asset 3, was in the scope of JSEB/JUSNL and 2X315 MVA, 400/220 kV ICTs & 4 nos of 220 kV line bays for termination of 220 kV lines at Chaibasa Sub-station of the petitioner were under construction. The petitioner had requested JSEB to expedite the construction work of evacuation scheme from Chaibasa Sub-station, matching with the construction of Chaibasa Sub-station and



associated Transmission System. The petitioner has submitted the letter dated 10.5.2014 written to the Chief Engineer (Transmission), Jharkhand in this regard.

29. The petitioner in its affidavit received on 27.5.2016 has submitted that the 220 kV JSEB /JUSNL Chaibasa (petitioner) and Chaibasa (JUSNL) D/C line was charged on 26.12.2015 and the power-flow of the Asset 3 and 5 started from their actual COD.

### **Delay in diversion of JUSNL Transmission Line (for Asset 5)**

30. The petitioner has submitted that on account of the diversion of the Jharkhand Urja Sanchar Nigam Limited (JUSNL) transmission line there were delays in commissioning of few elements of Chaibasa sub-station. The process of diversion of JUSNL line took almost 24 months.

31. We have considered the petitioner's submission with regard to Assets 3 and 5. As regards to the land acquisition problems, the petitioner has submitted chronological tabulation of events/correspondences along with documentary evidence to substantiate its claim. Having perused the available documents, we are of the view that the delay on account of land acquisition i.e. period from investment Approval (2.7.2010) to lease agreement with Government of Jharkhand (25.6.2011) is not attributable to the petitioner. This delay is to the tune of 1082 days.

32. With respect to the delay due to commissioning of the downstream system of JSEC/JUSNL. The petitioner has submitted that in order to match the



commissioning of the subject asset with the commissioning of the corresponding downstream asset the commissioning of the subject asset got delayed. The petitioner has submitted downstream asset status to substantiate its claim.

33. In view of the above deliberations, it is to conclude that the time overrun due to land acquisition problems, non-readiness of the downstream asset of JSEB and diversion of JUSNL transmission line were beyond the control of the petitioner. The petitioner has claimed delay to the tune of 782 days and 1188 days in commissioning of Assets 3 and 5 respectively. Thus, the entire time overrun is being condoned due to the reasons that cannot be attributed to the petitioner.

#### **For Asset 6a**

34. There is a time overrun of 1338 days in commissioning of Asset 6a. The petitioner has submitted following reasons for time overrun:-

##### **a) Delay due to Change in Scope of the Project**

The petitioner has submitted that the establishment of 2x315 MVA, 400/220 kV substation at Uttara in Odisha along with 400 kV Uttara-Mendhasal D/C line was approved as a part of Eastern Region Strengthening Scheme (ERSS-III) in the SCM held on 14.9.2009. As the land identified for Uttara Sub-station was earmarked for international airport, the petitioner along with OPTCL identified another land at Begunia. It has submitted that due to land acquisition problems at Begunia, OPTCL again identified a land at Pattanaikaya between Bhubaneswar and Puri.



Hence, establishment of 400/220kV, 2x315MVA GIS at Pattanaikaya along with a 400kV D/C line to Mendhasal was discussed and agreed in the Standing Committee meeting held on 8.2.2012. In the meeting, it was also decided that the petitioner and OPTCL would make a joint site visit to firm up the sub-station land. The petitioner has submitted that after the site visit, it was decided that the proposed GIS at Pattanaikaya would be relocated to Pandiabil and it was also decided to LILO Baripada - Mendhasal D/C line at Pandiabil, instead of a direct D/C line between Mendhasal and Pandiabil. The petitioner has submitted that the CEA vide its letter dated 29.6.2012 agreed in-principle for the same and later MoP, Government of India gave approval to the changed scope vide their letter dated 26.8.2013. Thus there is a delay of more than 03 years in view of revised scope and its subsequent approval from CEA and MoP.

**b) Delay in Land Acquisition by Government of Odisha**

The petitioner has submitted that the said 400/220 kV Sub-station (Uttara / Jagannathdham) was earlier planned in villages Malipara, Munda Amba, Somnathpur, Khiajhari. Accordingly Land acquisition process was initiated in the year 2009 but the required land was allotted on 22.12.2012 at Pandiabili and the same was handed over on 11.02.2013. Therefore there is a delay of almost 2 and half years on account of land acquisition.



### **c) Change in Tower Design and Configuration**

The petitioner has submitted that the tower design and configuration of the line connecting to the said sub-station was changed in April 2013 from Double circuit to Multi circuit to avoid large transmission corridor for D/C in the prime localities of the city and severe RoW problems. It has submitted that this required cancellation of the existing tower package and retendering of new tower package. Additionally, keeping in view of Nabkalebar festival ahead, due to land constraints and time constraints, GIS have been planned at Pandiabilli instead of conventional sub-station. The petitioner has further submitted that the land allotted at Pandiabilli required diversion of 132kV S/C Khurda-Puri transmission line which is owned by OPTCL. Various requests were made to OPTCL regarding diversion of 3 no.132kV towers of OPTCL from the sub-station land. The chronology for the same as submitted by the petitioner is tabulated below :

<b>Date</b>	<b>Remarks</b>
16.7.2013	Letter from POWERGRID to OPTCL intimating remittance of cheque favouring OPTCL in view of Diversion of 132kV Khurda- Puri TL from the sub-station land.
12.9.2014	Letter from POWERGRID to OPTCL requesting for furnishing the estimate for supply & erection activity for installation of 04 new towers and re-stringing activity.
13.3.2015	Letter from POWERGRID to OPTCL, intimating deposition of estimate amount regarding diversion of 132kV Khurda-Puri TL from the sub-station land and to carry out the works at the earliest.





#### d) Delay due to ROW Constraints

The petitioner has submitted that it has faced severe ROW issues during commissioning of the assets. The petitioner has submitted various correspondences to substantiate its claim. The petitioner has submitted following chronology with regard to ROW issue:-

<b>Date</b>	<b>Particulars</b>
29.09.2014	Office orders from Collector and DM, Khurdha, directing Rural Development Agency to oversee any aggression or obstruction from the locals during execution of the petitioner's works in the said area.
1.11.2014	
12.1.2015	Letter from Principal Secretary, Govt. of Odisha to Collector and DM, Khurdha, directing the collector office to provide adequate police force if necessary in view of obstruction caused by anti-socials.
13.1.2015	Letter from Collector and DM, Khurdha, to DSP, Bhubaneshwar, directing to provide adequate police force if necessary in view of work hampered by villagers.
27.01.2015	Grievance notice from DM (Grievance) to the petitioner
5.2.2015	Letter from DSP, Bhubaneshwar to ACP, Jatni Zone, directing to provide adequate police protection if necessary in view of obstruction caused by locals.
28.02.2015	Letter from the petitioner to Inspector-in-Charge, Khurdha, requesting him to provide adequate police protection in view of hindrances caused by locals.
20.04.2015	Letter from the petitioner to Collector and DM, Khurdha, requesting him to provide adequate police protection in view of hindrances caused by locals.
4.5.2015	Letter from DSP, Bhubaneshwar to ACP, Jatni Zone, directing to provide adequate police protection if necessary in view of obstruction caused by locals.
11.5.2015	Letter from the petitioner to 'Project Director, NHAI, requesting him to provide clearance for crossing for HH-5 to carry out transmission line works.
8.6.2015	Letter from the petitioner to DCP, Bhubaneshwar, requesting him to provide police protection in view of hindrances caused by locals.



### e) Delay in Forest Clearance

The petitioner has submitted that there has been delay in getting approval for the same from the competent Forest Authorities and has submitted various correspondences to substantiate its claim. The chronology of the events as submitted by the petitioner is tabulated below:

<b>Date</b>	<b>Remarks</b>
8.8.2013	Forest proposal submitted to CCF,Nodal
16.8.2013	Nodal forwarded to DFO,s Khurda & City (2)
18.7.2014	Proposal from DFO to RCCF & site visit by RCCF
20.9.2014	Suggestion from RCCF to change the Route along the forest stretch
2.1.2015	FRA Certificate issued by DM to DFG
8.1.2015	Revised Proposal from DFO to RCCF after compliance
28.1.2015	Proposal from RCCF forwarded to PCCF
9.2.2015	PCCF to AddL. Chief Secretary Forest Govt, of Odisha
25.2.2015	Secretary Forest forwarded to MOEF.
15.4.2015	Stage-I received
7.7.2015	Tree cutting order received

The petitioner has requested that based on the above unforeseen delay reasons, the Commission may condone the delay in completion of subject asset on merit of the same being out of the control of petitioner in line with clause 12(2)(i) of the 2014 Tariff Regulations under “uncontrollable factors”.

35. We have considered the submissions of the petitioner with respect to Asset 6a. The petitioner has attributed the delay on account of change in scope, land acquisition, change in tower design and configuration, ROW issues and Forest Clearance.



36. First issue is with regard to change in scope of work. It is observed that the proposed GIS at Pattanaikaya was relocated to Pandiabil and the original scope of direct D/C line between Mendhasal and Pandiabil was changed to LILO of Baripada-Mendhasal D/C line at Pandiabil. The petitioner received the MoP, GOI approval for change in scope in 26.8.2013. Having perused the documents, we are of the view that delay of 1151 days from the date of Investment Approval (2.7.2010) to the GOI approval (26.8.2013) is not attributable to the petitioner.

37. Second issue is related to land acquisition. It is observed that the petitioner had started the process of Land Acquisition well before the Investment Approval. However, the required land was allotted on 22.12.2012 at Pandiabili and the same was handed over to the petitioner on 11.02.2013. Therefore, the delay of 955 days from the date of Investment Approval (2.7.2010) to handing over of land is not attributable to the petitioner.

38. Third issue is with regard to change in tower design and configuration. The tower design and configuration was changed from Double Circuit to Multi Circuit and retendering was initiated. Additionally, the land allotted at Pandiabili required diversion of OPTCL line. The petitioner has submitted its letter to OPTCL dated 16.7.2013, 12.7.2014 and 13.3.2015 to substantiate its claim. Therefore the delay of 605 days due to this issue is being condoned.

39. Fourth issue is related to ROW constraints. The petitioner has submitted various letters to substantiate its claim. The first letter reporting ROW issues is



dated 29.9.2014 and the last such letter is dated 8.6.2015. The petitioner has also submitted multiple letters reporting ROW issues in between this period. We are of the view that the time over-run due to ROW issues is not attributable to the petitioner. Considering the first and last ROW instance letters, the delay is of the tune of 252 days is condoned.

40. Fifth issue is related to delay in forest clearance. The petitioner had applied for the forest clearance through its letter dated 8.8.2013 and obtained the tree cutting order vide letter dated 7.7.2015. Thus it took 698 days to obtain the forest clearance. Having perused the documents on record, we are of the view that the time over-run on account of delay in forest clearance is not attributable to the petitioner.

41. In view of the above deliberations, we conclude that the time overrun due the reasons mentioned above was beyond the control of the petitioner. The petitioner has claimed delay to the tune of 1308 days. Entire time overrun is being condoned as the causes for the time overrun cannot be attributed to the petitioner. The corresponding IDC/IEDC is being capitalised.

### **IDC and IEDC**

42. The petitioner vide Auditor`s certificates dated 25.5.2016 has submitted IDC and IEDC up to COD on accrual basis as below:-

(₹ in lakh)		
<b>Asset</b>	<b>IEDC up to COD</b>	<b>IDC up to COD</b>
Asset 2	378.77	561.18
Asset 3	93.81	116.03



Asset	IEDC up to COD	IDC up to COD
Asset 5	58.47	158.07
Asset 6 a	1137.78	3798.60

43. The petitioner has submitted that entire IEDC has been discharged up to COD. The IDC discharged on cash basis is as below:

(₹ in lakh)

Asset	IDC discharged up to COD	IDC discharged during 2014-15	IDC discharged during 2015-16	IDC discharged during 2016-17	IDC discharged during 2017-18
Asset 1	43.84	17.74	0.00	0.00	0.00
Asset 2	561.18	0.00	0.00	0.00	0.00
Asset 3	105.63	6.26	4.14	0.00	0.00
Asset 5	123.63	0.00	0.00	34.44	0.00
Asset 6a	3185.99	0.00	0.00	516.07	96.54

44. For determination of tariff for the 2014-19 tariff period for the instant transmission assets we have considered the capital cost as on COD after adjusting the IDC and IEDC discharged on cash basis.

45. Based on the above submissions of the petitioner, IDC is being capitalised up to COD for instant assets and IDC discharged during 2014-15, 2015-16 and 2016-17 has been added to the additional capital expenditure during 2014-15, 2015-16 and 2016-17. Capital cost after adjustment of IDC is as follows:-

(₹ in lakh)

Asset	Capital Cost as on COD after adjustment of IDC	Additional Capital Expenditure after adjustment of IDC			
		2014-15	2015-16	2016-17	2017-18
Asset 2	4670.53	0.00	36.99	74.86	0.00
Asset 3	1816.67	26.49	110.01	498.02	213.43
Asset 5	1051.65	0.00	0.00	349.54	135.04
Asset 6a	31219.03	0.00	0.00	4688.37	1955.54



## Initial Spares

46. The petitioner has claimed initial spares of ₹28.42 lakh, ₹84.49 lakh, ₹39.50 lakh and ₹705.10 lakh pertaining to Sub-station for Asset 2, 3, 5 and 6a respectively. The petitioner has also claimed ₹22.00 lakh and ₹107.18 lakh with regard to Asset 2 and Asset 6a pertaining to Transmission Line. The cut-off date for Asset 2, 3, 5 and 6a is 31.3.2018, 31.3.2018, 31.3.2019 and 31.3.2019 respectively. The Commission has computed the allowable initial spares based on the norms in accordance with clause 13 of the Tariff Regulations, as below:-

Particulars (As per Auditor's Certificate)	(₹ in lakh)					
	Asset 2 (Transmission Line)	Asset 2 (Sub-station)	Asset 3 (Sub-station)	Asset 5 (Sub-station)	Asset 6a (Sub-station)	Asset 6a (Transmission Line)
Capital Cost up to cut-off date (excluding IDC, IEDC and land and cost of civil works)	2930.71	911.72	2112.37	987.40	16835.41	14817.08
Initial spares claimed	22.00	28.42	84.49	39.50	705.10	107.18
Norms (%)	1.00	6.00	6.00	6.00	6.00	1.00
Initial spares as per norms	29.38	56.38	129.44	60.50	848.96	148.58
<b>Excess initial spares</b>	0.00	0.00	0.00	0.00	0.00	0.00

47. Thus, the initial spares claimed by the petitioner for Asset 1, 2, 3, 5 and 6a are within the normative limits in accordance with clause 13 of the Tariff Regulations and the same is being allowed for computation of tariff. The capital cost as on COD considered for the purpose of computation of tariff as follows:-



(₹ in lakh)				
Particulars	Asset 2	Asset 3	Asset 5	Asset 6a
Capital cost upto cut off date as per Auditor's Certificate	4782.38	1827.07	1086.09	31831.64
IDC and IEDC adjusted	0.00	10.40	34.44	612.61
Excess initial spares	0.00	0.00	0.00	0.00
Capital cost as on COD considered for tariff determination	4670.53	1816.67	1051.65	31219.03

### **Additional Capital Expenditure**

48. Clause (1) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

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

- (i) Undischarged liabilities recognized to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation;
- (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.”

49. Clause 13 of Regulation 3 of the 2014 Tariff Regulations defines

“Cut - off Date” means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of a year, the cut - off date shall be 31st March of the year closing after three years of the year of commercial operation:”

50. The petitioner has claimed an estimated additional capital expenditure from COD to 31.3.2019 on account of balance and retention payments, covered under Regulation 14(1) of 2014 Tariff Regulations. The cut-off date for Asset 2, 3, 5 and



6a is 31.3.2017, 31.3.2018, 31.3.2018, and 31.3.2019 respectively. Thus the additional capital expenditure allowed for the 2014-19 tariff period is as follows:

(₹ in lakh)

Asset	Apportioned approved cost as per FR	Revised approved apportioned cost as per RCE	Expenditure up to COD	Estimated additional capital expenditure					Total completion cost
				2014-15	2015-16	2016-17	2017-18	Total	
Asset 2	3265.65	5488.27	4670.53	0.00	36.99	74.86	0.00	111.85	4782.38
Asset 3	2715.00	2817.83	1816.67	26.49	110.01	498.02	213.43	847.95	2664.62
Asset 5	1340.85	1736.65	1051.65	-	-	349.54	135.04	484.58	1536.23
Asset 6a	15170.01	45758.20*	31219.03	-	-	4688.37	1955.54	6643.91	37862.94

(\*Petitioner has not submitted break up of cost between Asset 6a and 6b)

51. The petitioner has not submitted breakup of cost between Asset 6a and 6b. Hence, it is directed that the petitioner should submit separate cost for Asset 6a and 6b at the time of truing up.

### **Debt: Equity Ratio**

52. Regulation 19 (1) of the 2014 Tariff Regulations specifies as under:-

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

Provided that:

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





53. The petitioner has considered debt: equity ratio as 70.00:30.00 as on COD. We have considered debt: equity ratio as per the petitioner submission as equity is within the norms as on COD and 70:30 for additional capitalization during 2014-15, 2015-16 and 2016-17 for instant assets. The details of the debt: equity as on the date of COD considered for the purpose of tariff computation for the 2014-19 tariff period are as follows:-

(₹ in lakh)

<b>Asset 2</b>						
	<b>As on COD</b>		<b>Additional capitalization during 2014-19</b>		<b>As on 31.3.2019</b>	
	<b>Amount</b>	<b>(%)</b>	<b>Amount</b>	<b>(%)</b>	<b>Amount</b>	<b>(%)</b>
Debt	3269.37	70.00	78.30	70.00	3347.67	70.00
Equity	1401.16	30.00	33.56	30.00	1434.71	30.00
<b>Total</b>	<b>4670.53</b>	<b>100.00</b>	<b>111.85</b>	<b>100.00</b>	<b>4782.38</b>	<b>100.00</b>

(₹ in lakh)

<b>Asset 3</b>						
	<b>As on COD</b>		<b>Additional capitalization during 2014-19</b>		<b>As on 31.3.2019</b>	
	<b>Amount</b>	<b>(%)</b>	<b>Amount</b>	<b>(%)</b>	<b>Amount</b>	<b>(%)</b>
Debt	1271.67	70.00	593.97	70.00	1865.23	70.00
Equity	545.00	30.00	254.39	30.00	799.39	30.00
<b>Total</b>	<b>1816.67</b>	<b>100.00</b>	<b>847.95</b>	<b>100.00</b>	<b>2664.62</b>	<b>100.00</b>

(₹ in lakh)

<b>Asset 5</b>						
	<b>As on COD</b>		<b>Additional capitalization during 2014-19</b>		<b>As on 31.3.2019</b>	
	<b>Amount</b>	<b>(%)</b>	<b>Amount</b>	<b>(%)</b>	<b>Amount</b>	<b>(%)</b>
Debt	736.16	70.00	244.68	70.00	1075.36	70.00
Equity	315.50	30.00	145.37	30.00	460.87	30.00
<b>Total</b>	<b>1051.65</b>	<b>100.00</b>	<b>484.58</b>	<b>100.00</b>	<b>1536.23</b>	<b>100.00</b>



(₹ in lakh)

<b>Asset 6a</b>						
	<b>As on COD</b>		<b>Additional capitalization during 2014-19</b>		<b>As on 31.3.2019</b>	
	<b>Amount</b>	<b>(%)</b>	<b>Amount</b>	<b>(%)</b>	<b>Amount</b>	<b>(%)</b>
Debt	21853.32	70.00	4650.74	70.00	26504.06	70.00
Equity	9365.71	30.00	1993.17	30.00	11358.88	30.00
<b>Total</b>	<b>31219.03</b>	<b>100.00</b>	<b>6643.91</b>	<b>100.00</b>	<b>37862.94</b>	<b>100.00</b>

### **Interest on Loan (“IOL”)**

54. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations provides as under:-

“(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.”

55. We have considered the weighted average rate of IOL on the basis of rate prevailing as on 1.4.2014. Further, the petitioner has prayed to allow it to bill and adjust impact on interest on loan due to change in interest rate on account of floating rate of interest applicable during 2014-19 period, if any from the respondents. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The petitioner’s prayer to bill and adjust the impact on interest on loan due to change in interest rate on account of floating rate of



interest applicable during 2014-19 period from the respondents will be considered at the time of truing up. The details of weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out as follows:-

(₹ in lakh)

<b>Asset 2</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	3269.37	3295.26	3347.67	3347.67
Cumulative Repayments upto Previous Year	0.00	153.30	403.83	656.34
Net Loan-Opening	3269.37	3141.97	2943.84	2691.33
Additions	25.89	52.40	0.00	0.00
Repayment during the year	153.30	250.53	252.51	252.51
Net Loan-Closing	3141.97	2943.84	2691.33	2438.82
Average Loan	3205.67	3042.90	2817.58	2565.07
Weighted Average Rate of Interest on Loan (%)	9.8147	9.8197	9.8275	9.8359
Interest on Loan	194.81	298.80	276.90	252.30

(₹ in lakh)

<b>Asset 3</b>					
<b>Particulars</b>	<b>2014-15 (pro-rata)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	1271.67	1290.21	1367.22	1715.83	1865.23
Cumulative Repayments upto Previous Year	0.00	17.26	112.16	221.58	347.60
Net Loan-Opening	1271.67	1272.95	1255.06	1494.25	1517.64
Additions	18.54	77.01	348.61	149.40	0.00
Repayment during the year	17.26	94.90	109.42	126.02	131.00
Net Loan-Closing	1272.95	1255.06	1494.25	1517.64	1386.64
Average Loan	1272.31	1264.00	1374.65	1505.94	1452.14
Weighted Average Rate of Interest on Loan (%)	9.9895	9.9876	9.9997	10.0113	10.0308
Interest on Loan	24.03	126.24	137.46	150.76	145.66

(₹ in lakh)

<b>Asset 5</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	736.16	736.16	980.83	1075.36



<b>Asset 5</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Cumulative Repayment upto Previous Year	0.00	3.70	58.33	124.11
Net Loan-Opening	736.16	732.45	922.51	951.25
Additions	0.00	244.68	94.53	0.00
Repayment during the year	3.70	54.62	65.78	68.89
Net Loan-Closing	732.45	922.51	951.25	882.36
Average Loan	734.30	827.48	936.88	916.80
Weighted Average Rate of Interest on Loan (%)	8.8240	8.8198	8.8109	8.8080
Interest on Loan	5.15	72.98	82.55	80.75

(₹ in lakh)

<b>Asset 6a</b>			
<b>Particulars</b>	<b>2016-17 (pro-rata)</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	21853.32	25135.18	26504.06
Cumulative Repayment upto Previous Year	0.00	1157.30	3061.39
Net Loan-Opening	21853.32	23977.88	23442.67
Additions	3281.86	1368.88	0.00
Repayment during the year	1157.30	1904.08	1955.20
Net Loan-Closing	23977.88	23442.67	21487.47
Average Loan	22915.60	23710.28	22465.07
Weighted Average Rate of Interest on Loan (%)	9.0278%	9.0176%	9.0065%
<b>Interest on Loan</b>	<b>1382.97</b>	<b>2138.09</b>	<b>2023.31</b>

### **Return on Equity("ROE")**

56. Clause (1) & (2) of Regulation 24 and Clause (2) of Regulation 25(2) of the 2014 Tariff Regulations specify as under:-

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



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

xxx

xxx”

**“25. Tax on Return on Equity:**

(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.”

57. The petitioner has claimed ROE at the rate of 20.961% after grossing up the ROE of 15.5% with MAT rate as per the above said Regulation. The petitioner has further submitted that the grossed up ROE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.



58. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/adjustable after completion of income tax assessment of the financial year.

59. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. The ROE allowed for the instant transmission assets is given below:-

(₹ in lakh)

<b>Asset 2</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	1401.16	1412.26	1434.71	1434.71
Additions	11.10	22.46	-	-
Closing Equity	1412.26	1434.71	1434.71	1434.71
Average Equity	1406.71	1423.49	1434.71	1434.71
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity	19.705	19.705	19.705	19.705



Asset 2				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
(%)				
Return on Equity	171.64	280.50	282.72	282.72

(₹ in lakh)

Asset 3					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Equity	545.00	552.95	585.95	735.36	799.39
Additions	7.95	33.00	149.41	64.03	0.00
Closing Equity	552.95	585.95	735.36	799.39	799.39
Average Equity	548.97	569.45	660.65	767.37	799.39
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.705
Return on Equity	20.35	112.21	130.18	151.21	157.52

(₹ in lakh)

Asset 5				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	315.50	315.50	420.36	460.87
Additions	0.00	104.86	40.51	0.00
Closing Equity	315.50	420.36	460.87	460.87
Average Equity	315.50	367.93	440.61	460.87
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT rate for the respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	4.94	72.50	86.82	90.82

(₹ in lakh)

Asset 6a			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Opening Equity	315.50	420.36	460.87
Additions	104.86	40.51	0.00
Closing Equity	420.36	460.87	460.87
Average Equity	367.93	440.61	460.87
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT rate for the respective year (%)	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705
<b>Return on Equity</b>	<b>72.50</b>	<b>86.82</b>	<b>90.82</b>



## **Depreciation**

60. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide as follows:-

### **"27. Depreciation:**

(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"

"(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."

61. Clause (67) of Regulation 3 of the 2014 Tariff Regulations defines useful life as follows:-

"(67) '**Useful life**' in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:

- (a) Coal/Lignite based thermal generating station 25 years
- (b) Gas/Liquid fuel based thermal generating station 25 years
- (c) AC and DC sub-station 25 years
- (d) Gas Insulated Substation (GIS) 25 years
- (d) Hydro generating station including pumped Storage hydro generating stations 35 years
- (e) Transmission line (including HVAC & HVDC) 35 years
- (f) Communication system 15 years"





62. The depreciation has been worked out considering the admitted capital cost as on COD and the additional capital expenditure admitted during 2014-19 period. The weighted average useful life for the instant assets has been considered as 25 years in accordance with the above regulation. The detailed calculations for depreciation for the transmission asset are worked out and allowed as follows:-

(₹ in lakh)

<b>Asset 2</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Gross Block	4670.53	4707.52	4782.38	4782.38
Additional Capitalisation	36.99	74.86	0.00	0.00
Closing Gross Block	4707.52	4782.38	4782.38	4782.38
Average Gross Block	4689.03	4744.95	4782.38	4782.38
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	4220.12	4270.46	4304.14	4304.14
Balance useful life of asset	33.00	32.00	31.00	30.00
Elapsed life	-	1.00	2.00	3.00
Remaining Depreciable Value	4220.12	4117.16	3900.31	3647.80
Depreciation during the year	153.30	250.53	252.51	252.51
Cumulative depreciation	153.30	403.83	656.34	908.85

(₹ in lakh)

<b>Asset 3</b>					
<b>Particulars</b>	<b>2014-15 (pro-rata)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Gross Block	1816.67	1843.16	1953.17	2451.19	2664.62
Additional Capitalisation	26.49	110.01	498.02	213.43	0.00
Closing Gross Block	1843.16	1953.17	2451.19	2664.62	2664.62
Average Gross Block	1829.92	1898.17	2202.18	2557.91	2664.62
Rate of Depreciation (%)	4.99	5.00	4.97	4.93	4.92
Depreciable Value	1565.49	1626.63	1900.06	2219.89	2315.80
Balance useful life of the asset	25.00	24.00	23.00	22.00	21.00
Elapsed life	0.00	1.00	2.00	3.00	4.00
Remaining Depreciable Value	1565.49	1609.37	1787.90	1998.31	1968.20
Depreciation during the year	17.26	94.90	109.42	126.02	131.00
Cumulative depreciation	17.26	112.16	221.58	347.60	478.59



(₹ in lakh)

<b>Asset 5</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Depreciation</b>				
Opening Gross Block	1051.65	1051.65	1401.19	1536.23
Additional Capitalisation	0.00	349.54	135.04	0.00
Closing Gross Block	1051.65	1401.19	1536.23	1536.23
Average Gross Block	1051.65	1226.42	1468.71	1536.23
Freehold Land (Av. Cost)	0.00	0.00	0.52	0.72
Rate of Depreciation (%)	4.55%	4.56%	4.57%	4.57%
Depreciable Value	946.49	1103.78	1321.37	1381.96
Balance useful life of the asset	25.00	24.00	23.00	22.00
Elapsed life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	946.49	1100.08	1263.04	1257.85
Depreciation during the year	3.70	54.62	65.78	68.89
Cumulative depreciation	3.70	58.33	124.11	193.00

(₹ in lakh)

<b>Asset 6a</b>			
<b>Particulars</b>	<b>2016-17 (pro-rata)</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Depreciation</b>			
Opening Gross Block	31219.03	35907.40	37862.94
Additional Capitalisation	4688.37	1955.54	0.00
Closing Gross Block	35907.40	37862.94	37862.94
Average Gross Block	33563.22	36885.17	37862.94
Freehold Land (Av. Cost)	0.00	0.00	0.00
Rate of Depreciation (%)	5.16%	5.16%	5.16%
Depreciable Value	30206.89	33196.65	34076.65
Balance useful life of the asset	30.00	29.00	28.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	30206.89	32039.35	31015.26
Depreciation during the year	1157.30	1904.08	1955.20
Cumulative depreciation	1157.30	3061.39	5016.58



### **Operation & Maintenance Expenses (“O&M Expenses”)**

63. The petitioner has claimed O&M Expenses as specified in sub-clause (a) of clause (4) of Regulation 29 of the 2014 Tariff Regulations.

64. The petitioner has submitted that norms for O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2009-13. The petitioner has further submitted that the wage revision of the employees of the petitioner is due during the 2014-19 tariff period and actual impact of wage hike, which will be effective at a future date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19. The petitioner has prayed to be allowed to approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

65. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The details of O&M Expenses allowed are given hereunder:-

	(₹ in lakh)				
<b>Asset</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Asset 2:</b>	-	84.18*	140.85	145.53	150.35
<b>Asset 3:</b>	19.38*	105.91	109.43	113.06	116.81
<b>Asset 5:</b>	-	6.93*	90.12	93.10	96.20
<b>Asset 6a:</b>			554.30 *	856.61	885.08



### **Interest on Working Capital (“IWC”)**

66. As per 2014 Tariff Regulations the components of the working capital and the interest thereon are discussed hereinafter:-

#### **(i) Receivables**

As per Regulation 28(1) (c) (i) of the 2014 Tariff Regulations, receivables will be equivalent to two months average billing calculated on target availability level. The petitioner has claimed the receivables on the basis of 2 months transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges.

#### **(ii) Maintenance Spares**

Regulation 28 (1) (c) (ii) of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M Expenses from 1.4.2014. The petitioner has claimed maintenance spares for the instant asset and value of maintenance spares has accordingly been worked out as 15% of O&M Expenses.

#### **(iii) O & M Expenses**

Regulation 28 (1) (c) (iii) of the 2014 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the working capital. The petitioner has claimed O & M Expenses for the



instant asset and value of O & M Expenses has accordingly been worked out by considering 1 month O&M Expenses.

**(iv) Rate of interest on working capital**

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 transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later. Further, the Bank Rate' means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points).

67. The interest on working capital allowed is shown in the tables below:-

(₹ in lakh)

<b>Asset 2</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
O & M Expenses	11.36	11.74	12.13	12.53
Maintenance Spares	20.45	21.13	21.83	22.55
Receivables	167.10	166.26	164.06	160.72
Total Working Capital	198.91	199.13	198.02	195.80
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest of working capital	16.63	26.88	26.73	26.43



(₹ in lakh)

Asset 3					
Particulars	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
O & M Expenses	8.54	8.83	9.12	9.42	9.73
Maintenance Spares	15.38	15.89	16.41	16.96	17.52
Receivables	73.62	75.47	83.54	92.86	94.57
Total Working Capital	97.54	100.18	109.07	119.24	121.83
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	2.49	13.52	14.72	16.10	16.45

(₹ in lakh)

Asset 5				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
O & M expenses	7.27	7.51	7.76	8.01
Maintenance Spares	13.08	13.52	13.97	14.43
Receivables	44.93	49.97	56.47	57.92
Total	65.28	70.99	78.19	80.36
Rate of Interest	13.50	13.50	13.50	13.50
Interest on Working Capital	0.70	9.58	10.56	10.85

(₹ in lakh)

Asset 6a			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
O & M expenses	69.07	71.36	73.73
Maintenance Spares	124.38	128.49	132.76
Receivables	1132.04	1211.64	1215.65
Total	1325.49	1411.49	1422.14
Rate of Interest	13.50%	13.50%	13.50%
Interest on Working Capital	119.62	190.55	191.99

### **Annual Transmission Charges:**

68. The detailed computation of the various components of the annual fixed charges for the transmission assets for the tariff period 2014-19 is summarised below:-



(₹ in lakh)

<b>Asset 2</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Depreciation</b>				
Opening Gross Block	4670.53	4707.52	4782.38	4782.38
Additional Capitalisation	36.99	74.86	0.00	0.00
Closing Gross Block	4707.52	4782.38	4782.38	4782.38
Average Gross Block	4689.03	4744.95	4782.38	4782.38
Rate of Depreciation (%)	5.28	5.28	5.28	5.28
Depreciable Value	4220.12	4270.46	4304.14	4304.14
Balance useful life of the asset	0.00	32.00	31.00	30.00
Elapsed life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	4220.12	4117.16	3900.31	3647.80
Depreciation during the year	153.30	250.53	252.51	252.51
Cumulative depreciation (incl. of AAD)	153.30	403.83	656.34	908.85
<b>Interest on Loan</b>				
Gross Normative Loan	3269.37	3295.26	3347.67	3347.67
Cumulative Repayments upto Previous Year	0.00	153.30	403.83	656.34
Net Loan-Opening	3269.37	3141.97	2943.84	2691.33
Additions	25.89	52.40	0.00	0.00
Repayment during the year	153.30	250.53	252.51	252.51
Net Loan-Closing	3141.97	2943.84	2691.33	2438.82
Average Loan	3205.67	3042.90	2817.58	2565.07
Weighted Average Rate of Interest on Loan (%)	9.8147	9.8197	9.8275	9.8359
Interest on Loan	194.81	298.80	276.90	252.30
<b>Return on Equity</b>				
Opening Equity	1401.16	1412.26	1434.71	1434.71
Additions	11.10	22.46	0.00	0.00
Closing Equity	1412.26	1434.71	1434.71	1434.71
Average Equity	1406.71	1423.49	1434.71	1434.71
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705	19.705
Return on Equity	171.64	280.50	282.72	282.72
<b>Interest on Working Capital</b>				
O & M Expenses	11.36	11.74	12.13	12.53
Maintenance Spares	20.45	21.13	21.83	22.55
Receivables	167.10	166.26	164.06	160.72
Total Working Capital	198.91	199.13	198.02	195.80
Rate of Interest (%)	13.50	13.50	13.50	13.50



<b>Asset 2</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Interest of working capital	16.63	26.88	26.73	26.43
<b>Annual Transmission Charges</b>				
Depreciation	153.30	250.53	252.51	252.51
Interest on Loan	194.81	298.80	276.90	252.30
Return on Equity	171.64	280.50	282.72	282.72
Interest on Working Capital	16.63	26.88	26.73	26.43
O & M Expenses	84.41	140.85	145.53	150.35
<b>Total</b>	<b>620.78</b>	<b>997.57</b>	<b>984.39</b>	<b>964.30</b>

(₹ in lakh)

<b>Asset 3</b>					
<b>Particulars</b>	<b>2014-15 (pro-rata)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Depreciation</b>					
Opening Gross Block	1816.67	1843.16	1953.17	2451.19	2664.62
Additional Capitalisation	26.49	110.01	498.02	213.43	0.00
Closing Gross Block	1843.16	1953.17	2451.19	2664.62	2664.62
Average Gross Block	1829.92	1898.17	2202.18	2557.91	2664.62
Rate of Depreciation (%)	4.99	5.00	4.97	4.93	4.92
Depreciable Value	1565.49	1626.63	1900.06	2219.89	2315.80
Balance useful life of the asset	25.00	24.00	23.00	22.00	21.00
Elapsed life	0.00	1.00	2.00	3.00	4.00
Remaining Depreciable Value	1565.49	1609.37	1787.90	1998.31	1968.20
Depreciation during the year	17.26	94.90	109.42	126.02	131.00
Cumulative depreciation (incl. of AAD)	17.26	112.16	221.58	347.60	478.59
<b>Interest on Loan</b>					
Gross Normative Loan	1271.67	1290.21	1367.22	1715.83	1865.23
Cumulative Repayments upto Previous Year	0.00	17.26	112.16	221.58	347.60
Net Loan-Opening	1271.67	1272.95	1255.06	1494.25	1517.64
Additions	18.54	77.01	348.61	149.40	0.00
Repayment during the year	17.26	94.90	109.42	126.02	131.00
Net Loan-Closing	1272.95	1255.06	1494.25	1517.64	1386.64
Average Loan	1272.31	1264.00	1374.65	1505.94	1452.14
Weighted Average Rate of Interest on Loan (%)	9.9895	9.9876	9.9997	10.0113	10.0308
Interest on Loan	24.03	126.24	137.46	150.76	145.66





<b>Asset 3</b>					
<b>Particulars</b>	<b>2014-15 (pro-rata)</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Return on Equity</b>					
Opening Equity	545.00	552.95	585.95	735.36	799.39
Additions	7.95	33.00	149.41	64.03	0.00
Closing Equity	552.95	585.95	735.36	799.39	799.39
Average Equity	548.97	569.45	660.65	767.37	799.39
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.342
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.705
Return on Equity	20.35	112.21	130.18	151.21	157.52
<b>Interest on Working Capital</b>					
O & M Expenses	8.54	8.83	9.12	9.42	9.73
Maintenance Spares	15.38	15.89	16.41	16.96	17.52
Receivables	73.62	75.47	83.54	92.86	94.57
Total Working Capital	97.54	100.18	109.07	119.24	121.83
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	2.49	13.52	14.72	16.10	16.45
<b>Annual Transmission Charges</b>					
Depreciation	17.26	94.90	109.42	126.02	131.00
Interest on Loan	24.03	126.24	137.46	150.76	145.66
Return on Equity	20.35	112.21	130.18	151.21	157.52
Interest on Working Capital	2.49	13.52	14.72	16.10	16.45
O & M Expenses	19.38	105.91	109.43	113.06	116.81
<b>Total</b>	<b>83.51</b>	<b>452.79</b>	<b>501.22</b>	<b>557.15</b>	<b>567.44</b>

(₹ in lakh)

<b>Asset 5</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Depreciation</b>				
Opening Gross Block	1051.65	1051.65	1401.19	1536.23
Additional Capitalisation	0.00	349.54	135.04	0.00
Closing Gross Block	1051.65	1401.19	1536.23	1536.23
Average Gross Block	1051.65	1226.42	1468.71	1536.23
Freehold Land (Av. Cost)	0.00	0.00	0.52	0.72
Rate of Depreciation (%)	4.55%	4.56%	4.57%	4.57%
Depreciable Value	946.49	1103.78	1321.37	1381.96
Balance useful life of the asset	25.00	24.00	23.00	22.00



<b>Asset 5</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Elapsed life	0.00	1.00	2.00	3.00
Remaining Depreciable Value	946.49	1100.08	1263.04	1257.85
Depreciation during the year	3.70	54.62	65.78	68.89
Depreciation upto previous year	0.00	3.70	58.33	124.11
Cumulative depreciation (incl. of AAD)	3.70	58.33	124.11	193.00
<b>Interest on Loan</b>				
Gross Normative Loan	736.16	736.16	980.83	1075.36
Cumulative Repayment upto Previous Year	0.00	3.70	58.33	124.11
Net Loan-Opening	736.16	732.45	922.51	951.25
Additions	0.00	244.68	94.53	0.00
Repayment during the year	3.70	54.62	65.78	68.89
Net Loan-Closing	732.45	922.51	951.25	882.36
Average Loan	734.30	827.48	936.88	916.80
Weighted Average Rate of Interest on Loan (%)	8.8240%	8.8198%	8.8109%	8.8080%
Interest on Loan	5.15	72.98	82.55	80.75
<b>Return on Equity</b>				
Opening Equity	315.50	315.50	420.36	460.87
Additions	0.00	104.86	40.51	0.00
Closing Equity	315.50	420.36	460.87	460.87
Average Equity	315.50	367.93	440.61	460.87
Return on Equity (Base Rate )(%)	15.500%	15.500%	15.500%	15.500%
MAT rate for the respective year (%)	21.342%	21.342%	21.342%	21.342%
Rate of Return on Equity (%)	19.705%	19.705%	19.705%	19.705%
Return on Equity	4.94	72.50	86.82	90.82
<b>Interest on Working Capital</b>				
O & M expenses	7.27	7.51	7.76	8.01
Maintenance Spares	13.08	13.52	13.97	14.43
Receivables	44.93	49.97	56.47	57.92
Total	65.28	70.99	78.19	80.36
Rate of Interest	13.500%	13.500%	13.500%	13.500%



<b>Asset 5</b>				
<b>Particulars</b>	<b>2015-16 (pro-rata)</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Interest on Working Capital	0.70	9.58	10.56	10.85
<b>Annual Transmission Charges</b>				
Depreciation	3.70	54.62	65.78	68.89
Interest on Loan	5.15	72.98	82.55	80.75
Return on Equity	4.94	72.50	86.82	90.82
Interest on Working Capital	0.70	9.58	10.56	10.85
O & M Expenses	6.93	90.12	93.10	96.20
<b>Total</b>	<b>21.42</b>	<b>299.81</b>	<b>338.81</b>	<b>347.51</b>

(₹ in lakh)

<b>Asset 6a</b>			
<b>Particulars</b>	<b>2016-17 (pro-rata)</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Depreciation</b>			
Opening Gross Block	31219.03	35907.40	37862.94
Additional Capitalisation	4688.37	1955.54	0.00
Closing Gross Block	35907.40	37862.94	37862.94
Average Gross Block	33563.22	36885.17	37862.94
Rate of Depreciation (%)	5.16%	5.16%	5.16%
Depreciable Value	30206.89	33196.65	34076.65
Balance useful life of the asset	30.00	29.00	28.00
Elapsed life	0.00	1.00	2.00
Remaining Depreciable Value	30206.89	32039.35	31015.26
Depreciation during the year	1157.30	1904.08	1955.20
Cumulative depreciation (incl. of AAD)	1157.30	3061.39	5016.58
<b>Interest on Loan</b>			
Gross Normative Loan	21853.32	25135.18	26504.06
Cumulative Repayments upto Previous Year	0.00	1157.30	3061.39
Net Loan-Opening	21853.32	23977.88	23442.67
Additions	3281.86	1368.88	0.00
Repayment during the year	1157.30	1904.08	1955.20
Net Loan-Closing	23977.88	23442.67	21487.47
Average Loan	22915.60	23710.28	22465.07
Weighted Average Rate of Interest on Loan (%)	9.0278%	9.0176%	9.0065%
Interest on Loan	1382.97	2138.09	2023.31



<b>Return on Equity</b>			
Opening Equity	9365.71	10772.22	11358.88
Additions	1406.51	586.66	0.00
Closing Equity	10772.22	11358.88	11358.88
Average Equity	10068.96	11065.55	11358.88
Return on Equity (Base Rate) (%)	15.50%	15.50%	15.50%
MAT Rate for respective year (%)	21.34%	21.34%	21.34%
Rate of Return on Equity (%)	19.71%	19.71%	19.71%
Return on Equity	1326.38	2180.52	2238.32
<b>Interest on Working Capital</b>			
O & M Expenses	69.07	71.36	73.73
Maintenance Spares	124.38	128.49	132.76
Receivables	1132.04	1211.64	1215.65
O & M expenses	1325.49	1411.49	1422.14
Rate of Interest	13.50%	13.50%	13.50%
Interest on Working Capital	119.62	190.55	191.99
<b>Annual Transmission Charges</b>			
Depreciation	1157.30	1904.08	1955.20
Interest on Loan	1382.97	2138.09	2023.31
Return on Equity	1326.38	2180.52	2238.32
Interest on Working Capital	119.62	190.55	191.99
O & M Expenses	554.30	856.61	885.08
<b>Total</b>	<b>4540.57</b>	<b>7269.85</b>	<b>7293.90</b>

### **Filing Fee and Publication Expenses**

69. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. 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 clause (1) of Regulation 52 of the 2014 Tariff Regulations.

### **Licence Fee and RLDC Fees and Charges**



70. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2) (b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

### **Service Tax**

71. The petitioner has sought to recover Service Tax on Transmission Charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list in future. We are of the view that the petitioner's prayer of Service Tax is premature.

### **Goods and Services Tax**

72. The petitioner has prayed for reimbursement of tax, if any, on account of proposed implementation of GST. Rajasthan Discoms have submitted that prayer for GST is not tenable in view of the likely commencement of GST Act wherein several taxes would come under one umbrella at uniform rate. In reply, the petitioner has submitted that the Commission should allow to recover GST from the beneficiaries, if imposed on transmission charges under the proposed GST when implemented by Government of India. We are of the view that petitioner's prayer is premature.

### **Foreign Exchange Rate Variation**



73. The petitioner has sought recovery of FERV on foreign loans deployed under clause 50 of 2014 Tariff Regulations. The petitioner is entitled to recover the FERV directly from the beneficiaries or the long term transmission customers/ DICs, as the case may be, in accordance with Regulation 51(1) of the 2014 Tariff Regulations.

### **Sharing of Transmission Charges**

74. The petitioner has submitted that due to non-readiness of corresponding associated system of OPTCL and JSEB, the petitioner was not able to provide services for the reasons not attributable to itself, its suppliers, or contractors, but on account of the delay in commissioning of downstream assets by OPTCL and JSEB.

75. The Commission had earlier dealt with the issue of mismatch in commissioning of the transmission system by an ISTS licensee and upstream/downstream system of STU in order dated 24.2.2017 in Petition No. 85/TT/2015. The relevant portion of the order is extracted hereunder:-

"68. In the instant case, the assets of the petitioner have been commissioned but the associated downstream system is not ready due to which assets are not in regular service. Standing committee minutes and RPC minutes in this regard provide as under:-

(a) Minutes of the meeting of the Standing Committee on Power system Planning in Eastern Region held on 8th November, 2008 :

"The following system strengthening works for ER were agreed

iii) 400/132 kV 2X200 MVA S/S near Lakhisarai/Jamalpur) with LILO of both circuits of one of the Kahalgaon-Biharsharif 400 kV D/C line and space provisions for 3rd transformer and 4 nos. of 132 kV line bays.



It was agreed by all the constituents that all the above regional system strengthening work in ER should be pooled with the regional system of ER for the purpose of sharing of transmission charges with corresponding share of generation of ER included in the total ISGS capacity for sharing of transmission charges”.

(b) Minutes of the 8th meeting Eastern Regional Power Committee (ERPC) held on 21st November, 2008 is as follows:

“B. System strengthening works in ER

1. 400/132 kV 2X200 MVA S/S near Lakhisarai/Jamalpur) with LILO of both circuits of one of the Kahalgaon-Biharsharif 400 kV D/C line and space provisions for 3rd transformer and 4 nos. of 132 kV line bays.

In the Standing committee, it was also agreed that all the above regional system strengthening work in ER should be pooled with the regional system of ER for the purpose of sharing of transmission charges with corresponding share of generation of ER included in the total ISGS capacity for Sharing of transmission charges.”

C) Minutes of the Special meeting of Eastern Regional power Committee held on 30th December, 2008 is as follows:

“It was also agreed that proposal under item no.6, “Suitable interconnection for providing 2nd feeder to Dubri 400 kV sub-station of OPTCL by making LILO of one circuit of 400 kV Baripada-Mendhasal D/C line”, and item no.7(i),”Establishment of 400/220 kV sub-station at Chaibasa by making LILO of both the circuit of 400 kV Rourkela-Jamshedpur D/C line”, would be considered under system strengthening works in ER and treated on regular basis”.

The following system strengthening works for ER were agreed:

a) 400/132 kV,2X200 MVA S/S near Lakhisarai with LILO of both circuits of one of the Kahalgaon-Biharshariff 400 kV D/C line and space provision for 3rd transformer and 4 nos. of 132 kV line bays.

b) 400/132 kV,2X200 MVA S/S at Banka in Bihar with LILO of both circuits of one of the Kahalgaon-Biharshariff D/C line (line not be LILOed at Lakhisarai S/S) and provision of 4 nos. of 132 kV line bays.

j) Establishment of 400/220 kV Chaibasa sub-station and LILO of one circuit of 400 kV Rourkela-Jamshedpur line at 400/220 kV Chaibasa.

69. It is observed that assets covered in the instant petition have been established under system strengthening scheme for Eastern Region and sharing for which has been mentioned to be under ER pool. However, it can be seen that Lakhisarai Sub-station is primarily for feeding power to Bihar and Chaibasa Sub-station is for feeding power to Jharkhand. In this instant case, the drawal feeders



from these sub-stations have not been commissioned/delayed due to which assets commissioned by petitioner were not put to regular use.

70. The petitioner has stated that it has continuously followed up with BSPTCL for timely commissioning of downstream network. However, it is observed that the petitioner has relied on the OCC meeting held on 21.2.2014 and subsequent meetings in support of its contention on coordination while the assets were to be commissioned in April, 2014. We are of the view that coordination has to be done well in advance and not just two months before commissioning of the assets. Accordingly, the petitioner is directed to coordinate in advance with STUs regarding the commissioning of its assets

71. The Commission had earlier dealt with the issue of mismatch in commissioning of the transmission system by an ISTS licensee and upstream/downstream system of STU in order dated 4.1.2017 in Petition No. 155/MP/2016. The relevant portion of the order is extracted hereunder:-

“16. The next question arises that who shall bear the transmission charges of the elements from the date of SCOD till the commissioning of downstream asset by PSPCL. The issue regarding payment of transmission charges from the date of SCOD was deliberated in Petition No. 43/MP/2016 and the Commission vide order dated 21.9.2016 laid down the principles for such cases and observed as under:

“24. A related issue arises as to how recovery of transmission charges of transmission licensee shall be made when the transmission system under TBCB is ready as on its scheduled COD as per the provisions of the TSA but cannot be made operational or put to use due to non-availability/ delay in upstream/ Page 56 of 83 Order in Petition No. 85/TT/2015 downstream system. In our view, ISTS licensee executing the project under TBCB should enter into Implementation Agreement with CTU, STU, inter-State transmission licensee, or the concerned LTTC, as the case may be, who are responsible for executing the upstream/ downstream transmission system and clearly provide the liability for payment of transmission charges in case of the transmission line or upstream/downstream transmission assets. In the absence of Implementation Agreement, the payment liability should fall on the entity on whose account an element is not put to use. For example, if the transmission line is ready but terminal bays belonging to other licensees are not ready, the owners of upstream and downstream terminal bays shall be liable to pay the charges to the owner of transmission line in the ratio of 50:50 till the bays are commissioned. In case one end bays are commissioned, the owner of other end bays shall be liable to pay the entire transmission charges of the transmission line till its bays are commissioned. The above principle shall be followed by CTU in all cases of similar nature in future.”

As per the decision quoted above, if the downstream system of the elements in present case is not commissioned by the schedule date of commercial operation, the owner of the downstream system shall be liable to pay the transmission charges of the transmission system till the downstream system is commissioned.





However, the Commission, vide order dated 19.4.2016 in Petition No. 100/TT/2014, observed as under:

"8.The petitioner has prayed for approval of COD under Regulation 4(3)(ii) of 2014 Tariff Regulations. Petitioner has submitted that the downstream system which is the associated 220 kV feeder connections was to be implemented by the RVPNL. The petitioner has made several correspondences to the RVPNL for making the associated 220 kV feeder connections available; however the downstream system was not implemented at the time of filing of this petition. The petitioner, vide its affidavit dated 9.3.2015, has submitted that out of the 6 nos. 220 kV feeders to be implemented by the RVPNL, two feeders have been commissioned.

9. Clause 3 (ii) of Regulation 4 of the 2014 Tariff Regulations provides as under:-

"in case a transmission system or an element thereof is prevented from regular service for reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system, the transmission licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof."

10. Further, the Commission in its order dated 5.8.2015 in Petition No. 11/SM/2014 in the matter of Non-compliance of Sections 38 and 39 of the Electricity Act, 2003 has stated that:-

"20. Keeping in view the mismatch between commissioning of transmission system by an ISTS licensee and upstream/downstream system of STU, we are of the view that ISTS transmission licensees and STUs should also sign such Implementation Agreement for development of ISTS and downstream system in coordinated way to avoid any mismatch. We direct staff of the Commission to examine this aspect and propose necessary changes required in the 2014 Tariff Regulations to enable an ISTS licensees and STUs to enter into Implementation Agreement.

21. Since, the process of amendment would take time, we direct STUs to expedite downstream system in a time bound manner so that the transmission system already commissioned is put to use. PGCIL is at liberty to approach the Commission for invoking Regulation 3(12) (c) of the 2009 Tariff Regulations or Regulation 4(3) (ii) of 2014 Tariff Regulations, as the case may be, for COD of the completed assets. Concerned STU, who had requested for provision of downstream line bays in the various meetings of Standing Committee/RPC, shall bear the transmission charges till completion of downstream system."

11. PSPCL submitted that the DOCO certificate given in the petition does not certify that the associated 220kV bays have been charged/commissioned. Hence, as per the certification given in the DOCO certificate, the 220kV bays are not certified to be commissioned. In absence of 220kV line bays, this entire



substation/project becomes idle since the purpose of this new substation is to supply 220kV lines in Kotputli area.

12. The petitioner has already completed its work covered under their scope of work but the concerned STU has not completed their scope of work i.e. the implementation of associated 220 kV feeder connections. The petitioner in this matter has made regular correspondence which is evident from the copy of letters submitted to the RVPNL. Petitioner vide affidavit dated 1.2.2016 has submitted the status of 220KV feeders of Kotputli Sub-station. It is evident from the submission that commissioning of 220 KV feeders have been delayed.

13. In view of the above we are approving the COD of the Asset A& B (i) as 1.4.2014 and Asset B (ii) as 10.9.2014 under the Regulation 4 (3(ii)) of the 2014 Tariff Regulations. However, as regards the recovery of the transmission charges is concerned, the transmission charges is to be recovered from the concerned State Discoms in accordance with the transmission service agreements as set forth in forthcoming paragraph of this order. 14. Annual Fixed charges for 2014-19 tariff period are being determined in the succeeding paragraphs."

In the light of the above, PSPCL shall be liable to bear transmission charges from SCOD/actual commissioning whichever is later till commissioning of downstream system post which the assets shall be considered under POC.

17. The petitioner is directed to provide YTC details of its assets to NLDC and CTU. NLDC shall provide the same to RPC for inclusion in RTAs. The assets shall be billed along with bill 1 under the provisions of the Central Electricity Regulatory Commission (Sharing of inter-State Transmission charges and losses), Regulations, 2010 as amended from time to time. ISTS licensees shall forward the details of YTC to be recovered as per formats provided under the Sharing Regulations to NLDC. ISTS licensees shall forward the details of entity along with YTC details from whom it needs to be recovered as per applicable order's of the Commission to NLDC (only in cases of bilateral billing due to non-availability of upstream/downstream system). Based on the input received from respective licensees and the Commission's order, NLDC shall provide details of billing pertaining to non-availability of upstream/downstream system to respective RPCs for incorporation in RTAs for all cases of bilateral billing. On this basis, CTU shall issue the bills. The process given in this para shall be applicable to all future cases of similar nature and all concerned shall duly comply with the same.

72. The assets have been planned to cater to the drawal requirements of Bihar and Jharkhand Discoms. However, due to non-availability of downstream assets the instant assets have not been put to regular use. Accordingly, we are of the view that the transmission charges of Assets-1 to 4 and Assets-5 to 8, from the COD till the commissioning of downstream network will be borne by the Bihar Discoms and by Jharkhand discoms respectively. After that the billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and losses) Regulations, 2010, as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations.



73. Further, as directed in order dated 5.8.2015 in Petition 11/SM/2014, the petitioner and the STUs should sign implementation Agreement for development of ISTS and downstream system in coordinated way to avoid any mismatch.”

76. The assets have been planned to cater to the drawal requirements of Odisha and Jharkhand Discoms. However, due to non-availability of downstream assets, the instant assets have not been put to regular use. Accordingly, we are of the view that the transmission charges of Asset 2, Asset 3, Asset 5 and Asset 6a from the COD till the commissioning of downstream network will be borne by JSEB and OPTCL. After that the billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time as provided in Regulation 43 of the 2014 Tariff Regulations.

77. This order disposes of Petition No. 278/TT/2015.

**Sd/-**  
**(Dr. M. K. Iyer)**  
**Member**

**Sd/-**  
**(A.S. Bakshi)**  
**Member**



## ANNEXURE-I

### DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2014-19

(₹ in lakh)

<b>Asset 2</b>				
<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on 1.4.2015</b>	<b>Additions during the tariff period</b>	<b>Total</b>
BOND XXXI-Doco loan-	8.90	40.00	0.00	40.00
BOND XXXIII-Doco loan 1-	8.64	40.00	0.00	40.00
BOND-XXXIV-Doco Loan 2-	8.84	20.00	0.00	20.00
BONO-XXXV-Doco loan 3-	9.64	10.00	0.00	10.00
BOND XXXVI-Doco loan 4-	9.35	30.00	0.00	30.00
BOND XXXVII-Doco loan 5-	9.25	10.00	0.00	10.00
BOND XXXVIII-Doco loan 6-	9.25	20.00	0.00	20.00
BOND XXXIX-Doco loan 7-	9.40	20.00	0.00	20.00
SBI (21.03.2012)-Doco loan 8-	9.95	450.00	0.00	450.00
BOND XL-Doco loan 9-	9.30	450.00	0.00	450.00
SBI (2014-15)-ADDCAP FOR 2015-2016 add cap loan-	9.95	0.00	25.89	25.89
SBI (2014-15)-DOCO FUNDING-	9.95	309.37	0.00	309.37
SBI (2014-15)-Doco loan 10-	9.95	1870.00	0.00	1870.00
<b>Total</b>		<b>3269.37</b>	<b>25.89</b>	<b>3295.26</b>

(₹ in lakh)

<b>Asset 3</b>				
<b>Particulars</b>	<b>Interest Rate (%)</b>	<b>Loan deployed as on 1.4.2014</b>	<b>Additions during the tariff period</b>	<b>Total</b>
BOND XL-DOCO Loan-	9.30	50.00	0.00	50.00
BOND - XLI-DOCO Loan 1-	8.85	100.00	0.00	100.00
BOND - XLIII-DOCO Loan 2-	7.93	35.00	0.00	35.00
BOND - XLIV-DOCO Loan 3-	8.70	32.11	0.00	32.11
SBI (2014-15)-ADDCAP FOR 2014-2015 add cap loan -	10.25	0.00	4.38	4.38
SBI (2014-15)-ADDCAP FOR 2015-2016 add cap loan 1-	0.00	0.00	76.87	76.87
SBI (2014-15)-Doco loan 10-	10.25	1054.56	0.00	1054.56
BOND XLIX-ADDCAP FOR 2014-2015 Add cap loan-	8.15	0.00	14.16	14.16
<b>Total</b>		<b>1271.67</b>	<b>95.41</b>	<b>1367.08</b>



(₹ in lakh)

Asset 5				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015	Additions during the tariff period	Total
BOND XL-DOCO Loan-	9.30	150.00	0.00	150.00
BOND - XLI-DOCO Loan 1-	8.85	100.00	0.00	100.00
BOND - XLIV-DOCO Loan 2-	8.70	250.00	0.00	250.00
BOND XLVI -DOCO Loan 3-	9.30	76.09	0.00	76.09
Bond XLVIII-DOCO Loan 4-	8.20	56.73	0.00	56.73
BOND LI-DOCO Loan 5-	8.40	103.34	0.00	103.34
<b>Total</b>		<b>736.16</b>	<b>0.00</b>	<b>736.16</b>

(₹ in lakh)

Asset 6a				
Particulars	Interest Rate (%)	Loan deployed as on 1.4.2016	Additions during the tariff period	Total
Bond XL	9.30	752.12	0.00	752.12
SBI (21.03.2012) - CHILD 1	9.55	5000.00	0.00	5000.00
BOND - XLI - CHILD 1	8.85	3000.00	0.00	3000.00
BOND L	8.40	4500.00	0.00	4500.00
Bond LI	8.40	3176.74	0.00	3176.74
BOND LIII	8.13	1332.00	0.00	1332.00
Bond LIV	7.97	92.46	0.00	92.46
Proposed Loan 2016-17 (7.97%)	7.97	0.00	361.25	361.25
Proposed loan 2016-17 (7.97%)	7.97	0.00	67.58	67.58
<b>Total</b>		<b>17853.32</b>	<b>428.83</b>	<b>18282.15</b>

**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN  
FOR TARIFF PERIOD 2014-19**

(₹ in lakh)

Asset 2					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	3269.37	3295.26	3295.26	3295.26	3269.37
Cumulative Repayments of Loans upto Previous Year	15.84	21.67	112.07	202.47	15.84
<b>Net Loans Opening</b>	<b>3253.53</b>	<b>3273.59</b>	<b>3183.19</b>	<b>3092.79</b>	<b>3253.53</b>
Add: Draw(s) during the Year	25.89	0.00	0.00	0.00	25.89
Less: Repayments of Loan during the year	5.83	90.40	90.40	90.40	5.83



<b>Asset 2</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Net Closing Loan</b>	<b>3273.59</b>	<b>3183.19</b>	<b>3092.79</b>	<b>3002.39</b>	<b>3273.59</b>
Average Net Loan	3263.56	3228.39	3137.99	3047.59	3263.56
Rate of Interest on Loan (%)	9.81	9.82	9.83	9.84	9.81
<b>Interest on Loan</b>	<b>320.16</b>	<b>317.03</b>	<b>308.46</b>	<b>299.88</b>	<b>320.16</b>

(₹ in lakh)

<b>Asset 3</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Opening Loan	1271.67	1290.21	1367.08	1367.08	1367.08
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	0.00	12.50	27.92
<b>Net Loans Opening</b>	<b>1271.67</b>	<b>1290.21</b>	<b>1367.08</b>	<b>1354.58</b>	<b>1339.16</b>
Add: Draw(s) during the Year	18.54	76.87	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	0.00	12.50	15.42	26.12
<b>Net Closing Loan</b>	<b>1290.21</b>	<b>1367.08</b>	<b>1354.58</b>	<b>1339.16</b>	<b>1313.04</b>
Average Net Loan	1280.94	1328.65	1360.83	1346.87	1326.10
Rate of Interest on Loan (%)	9.99	9.99	10.00	10.01	10.03
<b>Interest on Loan</b>	<b>127.97</b>	<b>132.73</b>	<b>136.08</b>	<b>134.82</b>	<b>133.01</b>

(₹ in lakh)

<b>Asset 5</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Opening Loan	736.16	736.16	736.16	736.16	736.16
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	20.83	41.66	0.00
<b>Net Loans Opening</b>	<b>736.16</b>	<b>736.16</b>	<b>715.33</b>	<b>694.50</b>	<b>736.16</b>
Add: Draw(s) during the Year	0.00	0.00	0.00	0.00	0.00
Less: Repayments of Loan during the year	0.00	20.83	20.83	104.16	0.00
<b>Net Closing Loan</b>	<b>736.16</b>	<b>715.33</b>	<b>694.50</b>	<b>590.34</b>	<b>736.16</b>



<b>Asset 5</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Average Net Loan	736.16	725.75	704.92	642.42	736.16
Rate of Interest on Loan (%)	8.82	8.82	8.81	8.81	8.82
<b>Interest on Loan</b>	<b>64.93</b>	<b>64.01</b>	<b>62.10</b>	<b>56.60</b>	<b>64.93</b>

(₹ in lakh)

<b>Asset 6a</b>			
<b>Particulars</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Opening Loan	17853.32	18214.57	18282.15
Cumulative Repayments of Loans up to Previous Year	62.68	767.23	1534.45
<b>Net Loans Opening</b>	<b>17790.64</b>	<b>17447.34</b>	<b>16747.70</b>
Add: Draw(s) during the Year	361.25	67.58	0.00
Less: Repayments of Loan during the year	704.55	767.23	767.23
<b>Net Closing Loan</b>	<b>17447.34</b>	<b>16747.69</b>	<b>15980.47</b>
Average Net Loan	17618.99	17097.52	16364.09
Rate of Interest on Loan (%)	8.7931%	8.7609%	8.7339%
<b>Interest on Loan</b>	<b>1549.25</b>	<b>1497.89</b>	<b>1429.22</b>

