

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 67/TT/2015

Coram:

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

Date of Order : 31.08.2017

In the matter of:

Determination of transmission tariff for **Asset-I:** HVDC portion and **Combined Asset-II:** AC Portion under "North East-Northern/Western Interconnector-I Project" in North East, Northern, Eastern and Western Region for tariff block 2014-19, under Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

And in the matter of:

Power Grid Corporation of India Limited,
"Saudamini", Plot No.2,
Sector-29, Gurgaon -122 001

.....**Petitioner**

Vs

1. Assam Electricity Grid Corporation Limited,
(Formerly Assam State Electricity Board),
Bijulee Bhawan, Paltan Bazar,
Guwahati-781 001, Assam
2. Meghalaya Energy Corporation Limited,
(Formerly Meghalaya State Electricity Board)
Short Round Road, "Lumjingshai",
Shillong-793 001, Meghalaya
3. Government of Arunachal Pradesh,
Vidyut Bhawan, Itanagar-791 111
Arunachal Pradesh
4. Power & Electricity Department,
Government of Mizoram,
Aizwal, Mizoram



5. Manipur State Electricity Distribution Company Limited,
(Formerly Electricity Department, Government of Manipur),
Electricity Complex, Patta No. 1293 Under 87 (2),
Khwai Bazar, Keishampat,
District-Imphal West, Manipur-795 001
6. Department of Power,
Government of Nagaland,
Kohima, Nagaland
7. Tripura State Electricity Corporation Limited,
Bidyut Bhawan, North Banamalipur,
Agartala, Tripura (W)-700 001, Tripura
8. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Shimla-171 004 (HP)
9. Punjab State Power Corporation Limited,
Thermal Shed T-1A, Patiala
10. Haryana Power Purchase Centre,
IInd Floor, Shakti Bhawan, Sector-6,
Panchkula (Haryana)-134 109
11. Power Development Department,
Janipura Grid Station,
Jammu (Tawi)-180 007
12. Uttar Pradesh Power Corporation Limited,
10th Floor, Shakti Bhawan Extn.,
14, Ashok Marg, Lucknow-226 001
13. Delhi Transco Limited,
Shakti Sadan, Kotla Road (Near ITO),
New Delhi
14. Chandigarh Administration,
Sector-9, Chandigarh
15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kasnwali Road,
Dehradun
16. Rajasthan Power Procurement Centre,
Vidyut Bhawan, Janpath, Jaipur
17. Ajmer Vidyut Vitran Nigam Ltd.
400 KV GSS Building,
Ajmer Road, Heerapura, Jaipur



18. Jodhpur Vidyut Vitran Nigam Ltd.,
400 KV GSS Building,
Ajmer Road, Heerapura, Jaipur
19. Jaipur Vidyut Vitran Nigam Ltd.,
400 KV GSS Building,
Ajmer Road, Heerapura, Jaipur
20. North Central Railway,
Allahabad
21. BSES Yamuna Power Limited,
Shakti Kiran Building, Karkardooma,
Delhi-110 092
22. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi
23. Tata Power Delhi Distribution Limited,
33 KV Substation Building, Hudson Lane,
Kingsway Camp, North Delhi-110 009
24. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110 001
25. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Rampur,
Jabalpur-482 008
26. Maharashtra State Electricity Distribution Company Limited,
Prakashgad,4th floor,
Andheri (East), Mumbai-400 052
27. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara-390 007
28. Electricity Department,
Government of Goa, Vidyut Bhawan,
Panaji, Near Mandvi Hotel, Goa-403 001
29. Electricity Department,
Administration of Daman and Diu,
Daman-396 210
30. Electricity Department,
Administration of Dadra Nagar Haveli,



U.T., Silvassa-396 230

31. Chhattisgarh State Electricity Board,
P.O. Sunder Nagar, Dangania, Raipur
Chhattisgarh-492 013
32. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Limited,
3/54, Press Complex, Agra-Bombay Road,
Indore-452 008
33. Karnataka Power Transmission Corporation Limited,
(KPTCL), Kaveri Bhavan,
Bangalore-560 009
34. Transmission Corporation of Andhra Pradesh Limited,
(APTRANSCO), Vidyut Soudha,
Hyderabad-500 082
35. Kerala State Electricity Board (KSEB),
Vaidyuthi Bhavanam, Pattom,
Thiruvananthapuram-695 004
36. Tamil Nadu Electricity Board (TNEB),
NPKRR Maaligai, 800, Anna Salai,
Chennai-600 002
37. Electricity Department,
Government of Pondicherry,
Pondicherry-605 001
38. Eastern Power Distribution Company of Andhra Pradesh Limited,
(APEPDCL) APEPDCL, P&T Colony, Seethmmadhara,
Vishakhapatam, Andhra Pradesh
39. Southern Power Distribution Company of Andhra Pradesh Limited,
(APSPDCL), Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta,
Tirupati-517 501, Chittoor District, Andhra Pradesh
40. Central Power Distribution Company of Andhra Pradesh Limited,
(APCPDCL), Corporate Office, Mint Compound,
Hyderabad-500 063, Andhra Pradesh
41. Northern Power Distribution Company of Andhra Pradesh Limited,
(APNPDCL), Opposite NIT Petrol Pump,
Chaitanyapuri, Kazipet,
Warangal-506 004, Andhra Pradesh
42. Bangalore Electricity Supply Company Limited (BESCOM),



Corporate Office, K.R.Circle,
Bangalore-506 001, Karanataka

43. Gulbarga Electricity Supply Company Limited (GESCOM),
Station Main Road,
Gulbarga, Karanataka
44. Hubli Electricity Supply Company Limited (HESCOM),
Navanagar, PB Road, Hubli, Karanataka
45. Mescom Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore-575 001, Karanataka
46. Chamundeswari Electricity Supply Corporation Limited (CESC),
927, L J Avenue, Ground Floor,
New Kantharaj Urs Road,
Saraswathipuram, Mysore-570 009, Karanataka
47. Telangana state PC Committee Co-ordination Committee,
TSPCC, TSTransco, R. No. 547/A Block,
Somajiguda, Khairathabad, Hyderabad-500 082,
Andhra Pradesh
48. Andhra Pradesh Power Co-ordination Committee
Room No. 547, 5th Floor, Block-A,
Vidyut Soudha, Somajiguda, Khairathabad,
Hyderabad-500 082, Andhra Pradesh
49. Bihar State Electricity Board,
Vidyut Bhawan, Bailey Road,
Patna-800 001
50. West Bengal State Electricity Distribution Company Limited,
Bidyut Bhawan, Bidhan Nagar,
Block DJ, Sector-II, Salt Lake City,
Kolkata-700 091
51. Grid Corporation of Orissa Limited,
Shahid Nagar,
Bhubaneswar-751 007
52. Damodar Valley Corporation,
DVC Tower, Maniktala
Civil Centre, VIP Road,
Kolkata-700 054
53. Power Department,
Govt. of Sikkim, Gangtok-737 101



54. Jharkhand State Electricity Board,
In front of Main Secretariat,
Doranda, Ranchi-834 002
55. North Bihar Power Distribution Company Limited,
Vidyut Bhawan, Bailey Road,
Patna, Bihar-800 001
56. South Bihar Power Distribution Company Limited,
Vidyut Bhawan, Bailey Road,
Patna, Bihar-800 001
57. Tata Steel Limited,
Generation Office (W-175),
Jamshedpur
58. Maithan Power Limited,
MA-5, Gogna Colony,
Maithan Dam Post Office,
District Dhanbad-828 207, Jharkhand
59. IND Barath Energy (Utkal) Limited,
Plot No. 30-A, Road No. 1,
Film Nagar, Jubilee Hills,
Hyderabad-500 033, Andhra Pradesh
60. AD Hydro Power Limited,
Bhilwara Towers, A-12, Sector-1,
Noida-201 301, Uttar Pradesh
61. Lanco Budhil Power Private Limited,
Plot No. 397, Udyog Vihar, Phase-III,
Gurgaon, Haryana
62. Himachal Sorang Power Private Limited,
D-7, Sector-1, Lane-1, 2nd Floor,
New Shimla, Shimla-171 009, Himachal Pradesh
63. MB Power (Madhya Pradesh) Limited (MBPMPL),
239, Okhla Industrial area, Phase-III,
New Delhi-110 020
64. Himachal Baspa Power Company Limited (HBPCL),
Karcham Wangtoo HEP, Sholtu Colony,
PO: Tapri, District Kinnaur-172 104,
Himachal Pradesh
65. Jindal Power Limited,
6th Floor, MTNL Building,



- 8, Bhikaji Cama Place, New Delhi-110 066
66. KSK Mahanadi Power Company Limited,
8-2-293/82/A/431/A, Road No. 22, Jubilee Hills
Hyderabad, Andhra Pradesh-500 033
67. PTC India Limited,
2nd Floor, NBCC Tower, 15, Bhikaji Cama Place,
New Delhi-110 066
68. IL&FS Tamil Nadu Power Company Limited,
C. Pudhupettai Post, Parangipettai (Via),
Chidambaram (TK), Cuddalore-608 502,
Tamil Nadu
69. Adani Power Limited,
10B, Sambhav Press Building,
Judges Bungalow Road, Badakdev,
Ahmedabad-380 015
70. Torrent Power Limited,
Naranpura Zonal Office,
Sola Road, Ahmedabad-380 013
71. Heavy Water Board,
Vikram Sarabhai Bhavan,
5th Floor, Anushaktinagar,
Mumbai-400 094
72. ACB India Limited,
7th Floor, Corporate Tower,
Ambience Mall, NH-8,
Gurgaon-122 001, Haryana
73. Emco Energy Limited,
Plot No.-F-5, Road No.-28,
Wagle Industrial Area, Thane,
Mumbai-400 604
74. Spectrum Coal and Power Limited,
7th Floor, Corporate Tower,
Ambience Mall, NH-8, Gurgaon-122 001,
Haryana
75. BARC,
TRP, Post-Ghivali, District-Palghar,
Barc Plant Site, District-Palghar-401 505,
Maharashtra



76. Bharat Aluminium Company Limited,
Captive Power Plant, Balconagar,
Korba-495 684
77. Dhariwal Infrastructure Limited,
C-6, Tadali Growth Centre, M.I.D.C.T,
District Chandrapur, Maharashtra-442 406
78. DB Power Limited,
Opposite Dena Bank, C-31, G-Block,
3rd Floor, Naman Corporate Link,
Bandra-Kurla Complex, Bandra (East),
Mumbai-400 051, Maharashtra
79. Neepco,
15, NBCC Tower,
Bhikaji Cama Place,
New Delhi
80. NHPC Limited,
NHPC Office Complex, Sector-33,
Faridabad
81. NTPC Limited,
Core-7, Scope Complex,
New Delhi

.....Respondents

For petitioner : Shri Sanjay Sen, Sr. Advocate for PGCIL
Ms. Swapna Seshadri, Advocate for PGCIL
Shri S.S. Raju, PGCIL
Shri Rakesh Prasad, PGCIL
Shri Vivek Kumar Singh, PGCIL
Shri Jasbir Singh, PGCIL
Shri Amit Bhargava, PGCIL
Shri V. Chandra Seghal, PGCIL
Shri Amit Kumar Chauhan, PGCIL
Shri H.K. Mallick, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri M.M. Mondal, PGCIL

For respondents : Shri Umakanta Sahu, GRIDCO
Ms. Himanshi Andley, GRIDCO
Shri Raj Kumar Mehta, GRIDCO
Shri S.K. Agarwal, Advocate for Rajasthan Discoms
Shri S.P. Das, Advocate for Rajasthan Discoms
Ms. Shikha Saloni, Rajasthan Discoms



Ms. Sheena M. Daniel, KSEBL
Ms. Sreeja R.S. KSEBL
Shri K.V.S. Baba, NLDC, POSOCO
Shri S.S. Barbanda, NLDC, POSOCO
Shri N. Nallarasam, NLDC, POSOCO
Shri H.M. Sharma, APDCL
Shri K. Goswami, APDCL
Shri M.K. Adhikari, AEGCL

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited (the petitioner) for approval of transmission charges for **Asset-I:** HVDC portion and **Combined Asset-II:** AC Portion (hereinafter referred to as “transmission assets”) under the transmission system associated with “North East-Northern/Western Interconnector-I Project” in North East, Northern, Eastern and Western Region for tariff block 2014-19 from the date of commercial operation of the assets to 31.3.2019 for tariff block 2014-19 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations’ 2014(hereinafter referred to as the "2014 Tariff Regulations").

Background

2. The petitioner has been entrusted with the implementation of Transmission System associated with North East-Northern/Western Interconnector-I Project. The Investment approval (IA) of the project was accorded by the petitioner’s Board of Directors vide Memorandum No. C/CP/NER-NR.WR Intr-I/97 dated 27.2.2009 at an estimated cost of ₹1113019 lakh including IDC of ₹106605 lakh (based on 4th quarter, 2008 price level). The scope of the scheme was discussed and agreed with NR constituents in 18th SCM held on 6.6.2005, with WR constituents in the 24th SCM held on 26.9.2005 and with NER constituents in the SCM held on 24.10.2005. The project was also discussed in a meeting on 6.12.2005, held under the chairmanship of Secretary (Power), MoP, wherein CEA was also present. The scope of work covered under the project was segregated into three parts.



The instant assets are covered under Part-A of the project and were scheduled to be commissioned within 54 months from the date of IA i.e. by 26.8.2013 say 1.9.2013. The RCE was accorded by Board of Directors in 323rd meeting held on 30.11.2015, as per extract submitted by the petitioner vide affidavit dated 10.12.2015, at an estimated cost of ₹1376271 lakh, including IDC of ₹174732 lakh (Based on April, 2015 price level). The scope of project broadly includes:-

Transmission Lines:

Part A: North East/Northern Western Interconnector-I

- (i) Biswanath Chariyali-Agra \pm 800 kV, 6000 MW HVDC bipole line : 1971 km
(This includes 22 km of four (4) nos. of corridors with 800 kV HVDC towers in the chicken neck area. Two of the corridors would be utilised by stringing of the Biswanath Chariyali-Agra HVDC bipole line (one pole in each corridor) while the other two corridors would be strung with single panther conductor per corridor charged at 132 kV. Further, this would include earth Electrode line of 50 km length at Biswanath Chariyali end and at 40 km length at Agra end)
- (ii) Balipara-Biswanath Chariyali 400 kV D/C line : 73 km
- (iii) LILO of Ranganadi-Balipara 400 kV D/C line at Biswanath Chariyali (Pooling Point) : 52 km
- (iv) Biswanath Chariyali-Biswanath Chariyali (AEGCL) 132 kV D/C line : 22 km

Part-B: Transmission System for immediate evacuation of power from Kameng HEP

- (i) Kameng-Balipara 400 kV D/C line : 65 km
- (ii) Balipara-Bongaigaon 400 kV D/C line (Quad conductor) with 30% Fixed Series Compensation at Balipara end : 300 km

Part-C: Transmission System for immediate evacuation of power from Lower Subansiri HEP

- (i) Lower Subansiri-Biswanath Chariyali (Pooling Point) 400 kV two (2) D/C lines with twin lapwing conductor : 2x175 km

Sub-stations:

Part A: North-East/Northern Western Interconnector-I



- (i) Establishment of 400/132 kV Pooling Station at Biswanath Chariyali with 2x200 MVA, 400/132/33 kV transformers along with associated line bays
- (ii) HVDC rectifier module of 3000MW at Biswanath Chariyali and inverter module of 3000 MW capacity at Agra
- (iii) Augmentation of 400 kV Agra Sub-station by 4x105 MVA, 400/220/33 kV transformer along with associated bays
- (iv) Extension of 400 kV line bays at Balipara Sub-station
- (v) Extension of 132 kV line bays of Biswanath Chariyali (AEGCL)

Part-B: Transmission System of immediate evacuation of power from Kameng HEP

- (i) 2nd 315 MVA, 400/220 kV ICT at Misa
- (ii) Extension of 400 kV line bays at Bongaigaon and Balipara Sub-stations

Part C: Transmission System for immediate evacuation of power from Lower Subansiri HEP

- (i) Extension of 400 kV line bays at Biswanath Chariyali Pooling Sub-station.

Reactive Compensation

A. Line reactors

S. No.	Name of line	Line Reactor
1	L. Subansiri-Biswanath Chariyali 400kV 2XD/C Line	1x63 MVAR* at Biswanath Chariyali end on each Ckts. (Total 4 nos. of reactors)
2	Balipara-Bongaigaon 400kV D/C Line(Quad Moose)	1x63 MVAR at both end on each Ckt. (Total 4 nos. of reactors)
3	Balipara-Biswanath Chariyali 400kV D/C line resulting from LILO of Ranganadi-Balipara 400kV D/C line at Biswanath Chariyali	1x50 MVAR Existing Fixed line reactor in each circuit at Balipara end to be made switchable at the present location itself

* Switchable line reactor

B. Bus reactors

S. No.	Name of Sub-station	Bus Reactor
1	Biswanath Chariyali	2x80 MVAR
2	Bongaigaon	1x80 MVAR



3	Balipara	1x80 MVAR
4	Lower Subansiri	1x80 MVAR*
5	Kameng	1x80 MVAR*

*These reactors would be a part of generation switchyard

3. The petitioner initially filed the instant petition based on the anticipated date of commercial operation of 31.3.2015. However, the petitioner, vide affidavit dated 18.12.2015, has submitted that Asset-II has been split into four assets and the actual date of commercial operation of assets covered in the instant petition. The details of the assets covered in the instant petition and their dates of commercial operation are as under:-

S. No.	Asset No.	Particulars	COD	
			Scheduled as per IA	Actual
1	Asset-I (HVDC Portion)	± 800 kV HVDC Biswanath Chariyali-Agra Pole-I (1500 MW HVDC Terminals at Biswanath Chariyali and Agra each along with the ± 800 kV Hexa Lapwing Transmission Line)	1.9.2013	1.11.2015
2	Asset-II (1.a): AC Portion	LILO of 400 kV D/C Ranganadi-Balipara-I T/L at Biswanath Chariyali PS alongwith associated bays at Biswanath Chariyali		28.10.2015
3	Asset-II (1.b): AC Portion	LILO of 400 kV D/C Ranganadi-Balipara-II T/L at Biswanath Chariyali PS alongwith associated bays at Biswanath Chariyali		27.10.2015
4	Asset-II (2): AC Portion	132 kV D/C Biswanath Chariyali (PG)-Biswanath Chariyali (AEGCL) T/L alongwith associated bays at Biswanath Chariyali (AEGCL) and Biswanath Chariyali Pooling Station (PGCIL)		1.10.2015
5	Asset-II (3): AC Portion	200 MVA, 400/132/33 kV ICT-I at Biswanath Chariyali PS		19.12.2015

4. AFC was allowed for the instant assets initially, vide order dated 8.1.2016 under Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the PoC computation which was further revised vide order dated 3.3.2016.

5. The transmission charges claimed by the petitioner are as under:-



(₹ in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	17947.13	45360.08	46701.05	46910.60
Interest on Loan	14651.59	35306.49	33912.56	31591.26
Return on Equity	13675.84	35522.24	37105.91	37345.64
Interest on working capital	1116.59	2804.65	2847.07	2811.64
O & M Expenses	931.29	2357.44	2487.53	2626.12
Total	48322.44	121350.90	123054.12	121285.26
Particulars	Asset-II (1b)-For one day			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	1.01	-	-	-
Interest on Loan	1.49	-	-	-
Return on Equity	0.80	-	-	-
Interest on working capital	0.10	-	-	-
O & M Expenses	0.37	-	-	-
Total	3.77	-	-	-
Particulars	Asset-II (1a and 1b)- w.e.f. 28.10.2015			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	212.49	547.38	577.17	585.09
Interest on Loan	303.36	736.63	720.49	675.51
Return on Equity	169.40	453.33	487.11	495.98
Interest on working capital	22.12	55.33	56.93	56.81
O & M Expenses	114.89	277.72	286.95	296.44
Total	822.26	2070.39	2128.65	2109.83
Particulars	Asset-II (2)			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	67.33	153.62	163.24	163.24
Interest on Loan	103.74	221.33	218.26	202.05
Return on Equity	55.55	132.58	143.60	143.60
Interest on working capital	8.77	19.03	19.67	19.55
O & M Expenses	64.32	132.91	137.32	141.91
Total	299.71	659.47	682.09	670.35
Particulars	Asset-II (3)			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	38.46	149.97	156.34	156.34
Interest on Loan	55.74	206.35	200.39	185.86
Return on Equity	31.80	129.58	137.19	137.19
Interest on working capital	4.37	16.52	16.88	16.73
O & M Expenses	26.63	96.55	99.76	103.07
Total	157.00	598.97	610.56	599.19



6. The details submitted by the petitioner in support of its claim for interest on working capital are as under:-

(₹in lakh)

Particulars	Asset-I			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	335.27	353.62	373.13	393.92
O & M Expenses	186.26	196.45	207.29	218.84
Receivables	19328.98	20225.15	20509.02	20214.21
Total	19850.51	20775.22	21089.44	20826.97
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	1116.59	2804.65	2847.07	2811.64
Particulars	Asset-II (1b)-For one day			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	20.62	-	-	-
O & M Expenses	11.46	-	-	-
Receivables	233.21	-	-	-
Total	265.29	-	-	-
Rate of Interest	13.50%	-	-	-
Interest	15.40	-	-	-
Particulars	Asset-II (1a and 1b)-w.e.f. 28.10.2015			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	40.32	41.66	43.04	44.47
O & M Expenses	22.40	23.14	23.91	24.70
Receivables	320.63	345.07	354.78	351.64
Total	383.35	409.87	421.73	420.81
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	22.12	55.33	56.93	56.81
Particulars	Asset-II (2)			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	19.30	19.94	20.60	21.29
O & M Expenses	10.72	11.08	11.44	11.83
Receivables	99.90	109.91	113.68	111.73
Total	129.92	140.93	145.72	144.85
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	8.79	19.03	19.67	19.55
Particulars	Asset-II (3)			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	14.02	14.48	14.96	15.46
O & M Expenses	7.79	8.05	8.31	8.59
Receivables	91.83	99.83	101.76	99.87
Total	113.64	122.36	125.03	123.92
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	4.37	16.52	16.88	16.73



7. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act, 2003. Only Assam Power Distribution Company Limited and POSOCO filed their comments. CEA in response to the query of the Commission clarified about the transmission planning for the subject transmission system.

8. The Commission considered the claim of the petitioner for transmission tariff in order dated 8.1.2016. After going through the background of the case; the strategic and natural importance of the transmission assets in the long term interest of the economy and the consumers at large; and the necessity of the transmission line for utilization of the hydro potential in the north-east, the Commission proposed that the instant assets should be considered as transmission assets of national importance and all regions of the country should bear the transmission charges of the said assets. The Commission decided to hear the DICs of all regions and accordingly directed the petitioner to implead the DICs of all regions as respondents in the petition and also directed the DICs to submit their views and participate in the hearing of the petition. The Commission directed the petitioner to take up the matter with the Monitoring Committee of the Power System Development Fund for financial assistance in terms of grant to reduce the burden on the DICs. The petitioner has impleaded all the DICs as respondents and also pursued the matter with the Monitoring Committee of the PSDF.

9. Uttar Pradesh Power Corporation Limited(Respondent No.12), Assam Power Distribution Company Limited on behalf of Assam Electricity Grid Corporation Limited, (Respondent No.1), Ajmer Vidyut Vitran Nigam Limited (Respondent No. 17), Jodhpur Vidyut Vitran Nigam Limited (Respondent No. 18)and Jaipur Vidyut Vitran Nigam Limited (Respondent No. 19), (collectively referred to as “Rajasthan Discoms”) have filed a



combined reply vide affidavit 25.1.2016. Tripura State Electricity Corporation Limited, (Respondent No. 7), Kerala State Electricity Board (Respondent No. 35), Grid Corporation of Orissa Limited (Respondent No. 51) and Madhya Pradesh Power Management Company Limited (Respondent No. 25) have filed the reply to the petition.

10. The gist of the replies filed by the respondents and the clarifications given by the petitioner are as under:-

a) Uttar Pradesh Power Corporation Ltd. (UPPCL), in its reply vide affidavit dated 26.10.2016 has raised issues like inordinate delay in evaluation of bids invited for the package, mismatch in figures given in Form 5 and the Auditors' Certificate, significant shortfall in amount incurred on initial spares vis a vis budgeted expenditure and cost variation in case of tower steel. UPPCL has submitted that the petitioner has justified the cost variation in tower steel on account of increase in line length by 18.46% but the variation in quantity of tower steel consumed was 88.22%. Hence, the petitioner should explain why there was increase in the tower steel consumption by 88.22% when the increase in length was only by 18.46%. Further, vide affidavit dated 26.10.2016, UPPCL has submitted that the transmission charges of the instant assets should be recovered as per the provisions of Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2010. Any grant/assistance received from Government of India should be adjusted to reduce the capital cost of assets. The transmission charges of HVDC line, for power flow from NER to NR and WR should be shared by NR and WR at the rate of 50% each and for power flow back to NER on the HVDC line, 100% of the transmission charges should be borne by NER. The petitioner in its rejoinder dated 1.12.2016 has submitted that UPPCL has accepted the principles laid down by the Commission in the Order dated



8.1.2016 and hence the said proposal should be applied at the time of final determination of tariff. The petitioner has further submitted that it is actively making efforts to obtain funding from PSDF and National Clean Energy Fund apart from other avenues of assistance from the Government of India. As regards the sharing of transmission charges, the petitioner submitted that it shall be as per the sharing mechanism decided by the Commission.

b) Assam Power Distribution Company Limited (APDCL), on behalf of Assam Electricity Grid Corporation Limited vide affidavit dated 25.1.2016 has raised the issues of time over-run resulting in cost over-run, initial spares, additional capitalisation, non-utilisation of NER-NR/WR HVDC Interconnector's full capacity and sharing of transmission charges. APDCL has raised the issues like time delay/mismatch of commissioning of both generating stations and the transmission system and accordingly fix the responsibilities to avoid unnecessary burdening the ultimate consumer with tariff of such high cost system without its full potential being utilised. The petitioner has filed rejoinder to APDCL's reply, vide affidavits dated 12.2.2016. The petitioner has submitted that the instant assets were developed after various discussions and deliberations for evacuation of power from the proposed generating stations in NER. It is also an independent scheme for strengthening of transmission network in NER and to connect NER with NR and WR. The petitioner has submitted that transmission projects should be planned for a long term and it is not possible to construct a uni-directional transmission system at present and later convert that into a bi-directional system. Accordingly, HVDC system which is bi-directional in nature has been developed keeping in the view the future requirement. The petitioner has submitted that due to its efforts the period of time over-run was



reduced, despite the fact that the instant transmission assets were constructed in the face of great challenges.

c) "Rajasthan Discoms" have filed a combined reply vide affidavit 25.1.2016, wherein they have raised the issue of lack of complete information on capital expenditure, specific details of income tax on MAT basis, deferred tax liability, return on equity and non-disclosure of the status of the project both in physical and financial terms. Rajasthan Discoms are seeking all payable taxes/duties/cess and levies to be additionally borne by the respondents without any rational criteria in support thereof.

The petitioner has filed rejoinder to the Rajasthan Discoms reply, vide affidavit dated 12.2.2016. The petitioner has submitted that initially the petition was filed on the basis of anticipated date of commercial operation. However, with the commissioning of the assets, the revised tariff forms and other details were submitted to the Commission and provided to all the respondents.

d. TSECL in its reply, vide affidavit dated 25.1.2016, has submitted that the instant assets are underutilized due to non-commissioning of inter-State generating stations. There is very little power flow compared to huge investment made, leading to abnormally high per unit cost of transmission charges. TSECL has submitted that as the project is of national importance, the entire cost must be met from the PSDF maintained by Government of India. It would provide relief to the consumers of beneficiary states and would help in reducing the overall cost of supply of power. The petitioner in its rejoinder vide affidavit dated 12.2.2016 has submitted that instant transmission system was not planned only for evacuation of power from Kameng HEP of NEEPCO and Subansiri HEP of NHPC. In view of the limited availability of corridor in the chicken neck area, it was decided after detailed deliberations to construct



HVDC bi-pole from NER to NR with the capacity of the order of 3500 to 4000 MW. With the commissioning of this link, against the present capacity of 1500 MW, up to 900 MW in both the directions is being transferred over this link. With regard to funding from PSDF, the petitioner undertakes to abide by any decision of the Commission, monitoring committee of PSDF and the Ministry of Power (MoP).

e) KSEB has submitted its reply vide affidavits dated 25.1.2016, 15.2.2016, 31.3.2016 and 18.4.2016. It has submitted that the SR constituents were not part of planning process of the instant assets. Moreover, the instant assets do not render any benefit to the SR beneficiaries hence the SR beneficiaries may be exempted from the payment of any transmission charges. As per the Tariff Policy and the 2010 Sharing Regulations, the transmission tariff is sensitive to distance, direction and quantum of flow of power and the cost of the HVDC should be borne by the DICs of the concerned regions. The current regulatory framework does not provide for sharing of the transmission charges of HVDC system by all the DICs of the country based on the national and strategic importance of a project. The hydro projects for which the instant assets have been constructed have not been commissioned and as such the transmission charges should be borne by those generating companies as provided in the regulations. In case, transmission charges are to be borne by all the DICs irrespective of any benefit being derived by them, the petitioner should be directed to refund any reduction in transmission charges along with interest, due to any grant or assistance from Government of India. The petitioner in its rejoinder to KSEB's reply, vide affidavits dated 13.4.2016 and 3.5.2016, has submitted that it has submitted the background events pursuant to which the instant transmission asset was planned and implemented. The petitioner has submitted that keeping in view the national



importance of the project and the long term interest of the economy and the consumers, the transmission charges of the instant assets should be shared by all the regions of the country. The petitioner has also submitted that the benefits of any assistance received from the Government of India will be passed on to the beneficiaries as per the directions of the government.

f) GRIDCO in its reply filed vide affidavits dated 20.4.2016 and 5.7.2016 has submitted that the liability to pay the transmission charges should be as per the “actual usage” of the system, as envisaged in the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, National Electricity Policy and Tariff Policy. GRIDCO has submitted that this scheme was discussed and agreed in various meetings and the scheme was meant for NER, WR and NR only. The direct identified beneficiaries in these three regions would enjoy the majority of advantage not only in terms of reliability, but also in terms of huge monetary benefits by meeting the load/evacuation requirement due to commissioning of the instant assets. Therefore, there is no justification for imposing the cost of the instant assets on all DICs. GRIDCO has submitted that it is already paying 10% reliability charges corresponding to its Approved Injection and Approved Withdrawl and it should not be burdened with transmission charges of the instant asset. The petitioner has filed rejoinder to GRIDCO’s reply, vide affidavit dated 11.5.2016. The petitioner has submitted that the 2010 Sharing Regulations provides for different principle for sharing the transmission charges with respect to HVDC system and the Commission’s directions regarding sharing of transmission charges are not contrary to the 2010 Sharing Regulations. The petitioner has submitted that the reliability support charges are different from the support by the HVDC system. There



are many advantages of HVDC System like (a) flexibility of power transfer in the seasonal varied hydro power generation of NER, (b) enhancement of the power transfer capacity between ER and NR, (c) the power generated from NER, Bhutan and Sikkim will flow smoothly even with the increase in the commissioning of the projects, (d) reduction in transmission losses and enhancement of grid stability. The petitioner has submitted that the reliability support charges are for the benefits of operation of an integrated grid whereas HVDC is a system which gives completely different system benefits. The petitioner has further submitted that as per the earlier system, only a particular set of beneficiaries pay for transmissions assets developed for them. However, as per the PoC charges, the transmission charges of all assets is pooled and billed to all the beneficiaries based on the methodology approved by the Commission.

g) MPPMCL vide affidavit dated 24.1.2017 has submitted that the petitioner has already been allowed 62.75% of the tariff claimed provisionally and the government has sanctioned grant of 50% of the claim amount under the PSDF and hence there is no financial crunch for the petitioner. Hence, the petitioner's claim may be disallowed in the interest of justice as it is creating unnecessary financial burden on the beneficiaries. The petitioner in its affidavit dated 12.4.2017 has submitted that Commission has allowed only 62.75% of the transmission charges claimed and the grant sanctioned by MoP has not yet been disbursed. The repayment of loans has already started however, there is no matching cash flow through transmission charges leading to financial difficulties. The petitioner has requested for grant of 90% of the tariff in terms of proviso (ii) of Regulation 7(7) of the 2014 Tariff Regulations for the instant assets.



11. We have considered the submissions of the respondents and petitioner. On the issue of considering the instant transmission asset as assets of natural and strategic importance and sharing of the transmission charges by all DICs, we find that two DICs namely, KSEB and GRIDCO have submitted that since the Southern Region and Eastern Region would not be benefitted by these transmission assets, these two regions may be exempted from paying the transmission charges and only the beneficiary regions namely, Northern Region, Western Region and North-Eastern Region should be made liable to pay the transmission charges of these assets. GRIDCO has submitted that it is paying 10% reliability charges which also include charges towards HVDC and it should not be burdened with extra charges. KSEB has submitted that if it is decided that the charges for the instant asset should be borne by all the DICs then the grants received from PSDF shall be refunded to the DICs alongwith interest. We find that except for the submission that the DICs of Eastern Region and Southern Region are not directly benefitted by the instant transmission assets, there is no serious objection to treat the subject transmission line as assets of national and strategic importance.

12. The Commission in order dated 8.1.2016 has recorded the reasons for treating the subject transmission assets as assets of strategic and national importance. The relevant portions of the order dated 8.1.2016 are extracted hereunder:-

“27. The Commission agrees with POSOCO that the usefulness and importance of the subject transmission assets should not be seen in the narrow prism of its immediate utilization during the initial years but needs to be assessed over the entire life cycle of the assets which will carry the hydro power from the huge potential in North East for the benefit by the entire country. POSOCO has rightly pointed out that this link would provide the flexibility in power transfer, function as a pseudo phase-shifter and help in mitigating oscillations in inter-area mode and above all, the frequency controllers at BNC would help in operation of NER system, if it were to get islanded due to any reasons. Further, this bi-directional HVDC technology would enable optimal hydrothermal mix and successful integration of renewable energy resources of the country due to its connectivity with the hydro surplus North Eastern Region on one end and balance part of the country through National Grid. Strong interconnection through AC links between all the regions of National Grid would enable



exchange of power between North–East Region and rest of the country. Moreover, this high capacity interconnection between North–East Region comprising of huge hydro potential would go a long way for integration of large renewable energy resources being developed in different parts of the country. Due to direct interconnection, hydro generation can support the variability and intermittent nature of renewable generation. Thus, this vital link is a flagship endeavour of the Indian Power Sector which will benefit the entire country.

28. Since the transmission assets are of strategic and national importance whose benefits shall be derived by the entire country, we are of the view that the charges for the HVDC assets covered in the present petition should be shared by all the regions of the Country.

29. The Commission is conscious of the fact that the capital investments in the assets of the subject transmission systems are huge and the entire assets may not be utilised to their intended level on account of the delay in commissioning of planned hydro potential in NER. The Commission feels that there is a strong necessity to share the burden of capital cost of transmission scheme by way of assistance from the Power System Development Fund (PSDF) by way of one time grant. Accordingly, we direct the petitioner to take up the matter with the Monitoring Committee of the PSDF for assistance in the form of one time grant from the PSDF and with Ministry of Power for grant to reduce the burden of transmission charges on the DICs. We also request Ministry of Power, Government of India to arrange for funds from the PSDF as well as Government grant, considering the subject transmission systems as assets of strategic and national importance, keeping in view the utility of these assets in the long term perspective to the economy of the country. ”

13. We reiterate our decision in Order dated 8.1.2016 and hold that considering the peculiar circumstances of these transmission assets to meet the energy needs of the country in future and development and utilization of the vast hydel resources in the north-east, we are of the considered view that the subject transmission assets be considered as assets of strategic and national importance and all DICs should bear the transmission charges in the short run for long term benefits. It is also pertinent to mention that MoP, Government of India has in its letter dated 10.3.2017 declared the assets as scheme of national importance. Accordingly, we confirm our decision in Order dated 8.1.2016 that the subject assets shall be treated as national assets and its charges shall be borne by all DICs.

14. As per the directions of the Commission in order dated 8.1.2016, the petitioner approached the MoP seeking grant of ₹5778 crore from the PSDF. MoP has sanctioned, vide letter dated 10.3.2017, ₹2889 crore and asked the petitioner to seek the balance



portion of ₹2889 crore from NCEF. The petitioner was further advised to approach MoP in case their proposal is not considered by NCEF. The relevant portion of MOP's letter dated 10.3.2017 is extracted hereunder:-

“The undersigned is directed to convey the approval of competent authority for the sanction of grant from PSDF under 4(3) (A) PSDF Regulations of CERC, towards Transmission system associated with “North East-Northern/Western Interconnector-I Project” and “Transmission system for development of pooling station in Northern Part of West Bengal and transfer of power from Bhutan to NE/WR (Funding of BNC Agra-HVDC) (BNC-Agra HVDC).

2. The sanction is being made subsequent to the following:

(i) The direction of CERC vide order dated 8.1.2016 in Petition No. 67/2015 to PGCIL to take up the matter with the Monitoring Committee of the PSDF for assistance in the form of one time grant from the PSDF and with Ministry of Power for grant to reduce the burden of transmission charges on the DICs.

(ii) Appraisal of the proposal by the Appraisal Committee during the meeting held on 15.9.2016.

(iii) CERC concurrence through communication dated 9th November, 2016 accordance with the procedure defined in Regulation 8(e) read with Regulation 4 (3) (A) of the Central Electricity Regulatory Commission (Power System Development Fund) Regulations, 2014, subject to approval from the Central Government as required in Regulation 4(3)(A) of CERC (PSDF) Regulations, 2014.

(iv) Approval of the proposal for grant equivalent to an amount of Rs. 2889 Crore (Rupees Two Thousand Eight hundred Eighty Nine Crore only) Monitoring committee during the meeting held on 24.11.2016.

(v) PGCIL may pursue their application for balance portion of the grant from NCEF. In case the proposal is not considered by NCEF, PGCIL may again approach for PSDF funding for balance amount.

(vi) MOP, has declared the scheme of National importance.

(vii) The sanction shall be governed as per the approved guidelines/procedures for funding from PSDF.”

15. The Commission directed the petitioner to submit the status of the amount granted under the PSDF and the proposal submitted under NCEF. The petitioner vide affidavit dated 15.6.2017 and 21.6.2017 has submitted that the petitioner has signed an Agreement with the Nodal agency for the disbursement of the amount granted under PSDF, but no budgetary provision has been made by the MoP for this purpose. The petitioner has further



submitted that the revised proposal to NCEF for grant of balance amount of ₹2889 crore has been submitted and is being pursued by the petitioner in right earnest. The relevant portions of its affidavit dated 21.6.2017 is extracted hereunder:-

“As budgetary provision for the subject scheme is not available in BE 2017-18, the matter is being pursued with MoP simultaneously to arrange necessary budgetary provision for early release of grant. NLDC had also requested MoP for arranging budgetary provision for the scheme. It is understood that budgetary provision for said grant would be carried out during RE/BE exercise in September-2017. However, efforts are being made for arranging budgetary provision as a special case for the scheme so as to release grant at the earliest. Disbursement of PSDF grant amount is expected in FY 2017-18.

In line with MoM of Monitoring Committee of PSDF, revised proposal for seeking funding of balance Rs. 2889 Crore from NCEF has also been submitted to MoP on January 13, 2017. However, MoP vide its letter dated April 20, 2017 desired that revised proposal for NCEF grant for balance amount of Rs. 2889 Crore with updated project status be submitted so as to process the same by them, which has been submitted by POWERGRID on April 24, 2017.

The revised proposal is under approval in MoP and the matter is being pursued earnestly by POWERGRID for sanction of NCEF grant for the scheme.”

16. KSEB has submitted that in case the transmission charges are to be borne by all DICs irrespective of the benefits being received by them, the petitioner should be directed to refund the transmission charges along with interest due to any grant or assistance from Government of India. As submitted by the petitioner, the Managing Committee of PSDF under the MoP, Government of India has sanctioned ₹2889 crore as grant and further MoP has advised the petitioner to submit a revised proposal for ₹2889 crore as grant from NCEF which has been submitted by the petitioner. As per the proviso under clause (6) of Regulation 9 of the 2014 Tariff Regulations, any grant received from the Central or State Government agency or statutory body or authority for the execution of the project which does not carry any liability for repayment shall be excluded from the capital cost for the purpose of computation of interest on loan, return on equity and depreciation. Thus, the grants received from PSDF and expected to be received from NCEF shall be reduced from



the capital cost of the project while determining the tariff. This way the concern of the DICs including KSEB will be duly taken care of.

17. During the hearing on 5.7.2016, learned senior counsel for the petitioner submitted that only 62.75% of the transmission charges are recovered because of which they are put to financial difficulties and requested to grant final tariff for the instant assets.

18. The petitioner is yet to receive the grant sanctioned under the PSDF and it appears that it may take some more time before the sanctioned grant of ₹2889 crore is disbursed to the petitioner. Further, the petitioner's proposal for grant of ₹2889 crore from NCEF has not been sanctioned. We are of the view that the final tariff should be allowed once the grant sanctioned is received by the petitioner and grant of final tariff on the basis of assumptions at this stage may necessitate further revision in the tariff. Hence, we are not inclined to allow final tariff for the instant assets at this stage. The petitioner is directed to pursue the matter with the MoP for disbursement of the grant sanctioned under the PSDF and sanction of grant under NCEF. The petitioner shall inform the Commission on receipt of the grant and thereafter final tariff will be determined for the instant assets.

19. The capital cost of the instant assets is determined in this order taking into consideration the objections raised by the respondents and the clarifications given by the petitioner. As stated above, the final tariff for the instant assets will be determined taking into consideration the amount and terms and conditions of grant sanctioned.

Capital Cost

20. Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations specify as follows:-

“(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.

21. The petitioner has frequently revised its claim and submitted revised Auditor's Certificates and Tariff Forms for the instant assets through various affidavits. We have considered the latest affidavits submitted by the petitioner for tariff calculations as detailed below:-

Asset	(Affidavit dated)		Remarks
	Auditor's Certificate	Tariff Forms	
Asset-I	3.3.2017	3.3.2017	-
Asset-II (1b)	31.3.2016	18.12.2015	*For one day only
Combined Asset-II (1a+1b)	31.3.2016	31.3.2016	*For Combined Assets
Asset-II (2)	31.3.2016	18.12.2015	-
Asset-II (3)	9.3.2016	9.3.2016	-

* Asset-II (1.a) and Asset-II (1.b) have been commissioned on 28.10.2015 and 27.10.2015 respectively. The Tariff for Asset-II (1.b) has been claimed for a day by the petitioner. These 2 assets have been combined and their combined COD is 28.10.2015, from where the petitioner is claiming their combined tariff. The petitioner has also submitted their combined tariff forms.



22. The petitioner has submitted the capital cost incurred and capital cost projected to be incurred as on the actual date of commercial operation as per Auditors' certificates vide affidavits as detailed above. The details of apportioned approved cost, capital cost as on the date of commercial operation and estimated additional capital expenditure incurred or projected to be incurred for the assets covered in the petition are as under:-

(₹ in lakh)

Particulars	Revised Apportioned Cost	Estimated Cost on COD	Add-Cap during			Total Estimated Cost
			2015-16	2016-17	2017-18	
Asset-I	871003.91	806800.85	41595.54	45688.78	8149.90	902235.07
Asset-II (1.b)	8694.41	7005.64	728.00	-	-	-
Combined Asset-II (1a+1b)	11767.82	9303.57	1024.29	842.86	300.00	11470.72
Asset-II (2)	3252.78	2565.59	356.00	374.40	-	3295.99
Asset-II (3)	3175.08	2601.95	317.20	257.55	-	3176.70

Cost over-run

23. UPPCL has submitted that there is huge variation in quantity of tower steel used and cost over-run. APDCL has submitted that the petitioner has submitted reasons for cost over-run and the cost over-run should not be allowed if it is attributable to the petitioner or its contractors/suppliers. In response, the petitioner in its rejoinder to the reply of UPPCL, has submitted that the variation in price of ₹46439 lakh is mainly due to difference in the price given in the FR in October, 2008 and the actual prices in October, 2014. The price variation is attributable to inflationary trends prevalent during execution of project and market forces existing at the time of bidding process of various packages. The petitioner has further submitted variation in indices of major raw materials, which are as under:-

Particulars	Variation in %age
CPI	70.95
WPI for fuel & Power	49.13
WPI	43.75
Copper	80.41



Tower steel	11.78
HG Zinc	92.00
CRGO	-28.77
HSD	68.21

24. The petitioner has submitted that quantity variation is mainly due to considerable increase in number of tension towers due to actual site conditions, actual route alignment, actual line routing and line length, resulting in increase in cost of tower steel material, conductors, hardware fitting, earth wire and insulators etc. The petitioner submitted that civil works also increased due to increase in number of tension towers and pile foundation.

25. The petitioner has further submitted that in view of above, the cost of HVDC equipment's (terminal packages), sub-station civil works, spares and communication system increased by ₹56000 lakh when compared to apportioned FR cost and in case of HVAC assets, the cost of grounding system, power & control cables, auxiliary system and 33 kV switchgear & equipment increased by ₹2374 lakh from apportioned FR cost. The impact of foreign currency variation worked out till 31.8.2014 for RCE is ₹52900 lakh, as exchange rate considered in FR was 1 EURO=INR ₹64.84, and 1 SEK=INR ₹6.05, which has increased to over ₹75 and ₹8.22 respectively resulting in increase in the cost. The petitioner has submitted that increase in ROW compensation cost is approximately ₹24800 lakh due to increased compensation paid towards crop loss, trees encountered and PTCC, based on the assessment by the district revenue authorities. The petitioner has submitted that increase in transmission line length from estimated 325 km (as per FR) to 385 km (as per actual) in NER portion, increased the cost by approximately ₹48907 lakh.

26. We have considered the submissions of the petitioner. The increase in the capital cost is due to the compensation paid towards crop, tree and PTCC, increase in exchange rate, increase in line length from 325 km (as per FR) to 385 km (as per actual) in NER



portion and higher award cost because of the technicalities involved in the project. The petitioner has also submitted documentary evidences to substantiate its claim. Further, the petitioner, vide affidavit dated 13.4.2016 has submitted Revised Cost Estimate (RCE). We have also perused the documents and RCE submitted by the petitioner. As per RCE, there is a cost over-run of ₹31231.16 lakh (approx. 3.5%) in respect of combined Asset-I (HVDC portion), ₹43.21 lakh (approx. 1.3%) and ₹1.62 lakh (approx. 0.05%) in respect of Combined Asset-II (2) & Asset-II (3)(AC Portion), whereas there is no cost over-run in respect of Combined Asset-II (1.a & 1.b) (AC Portion). We are of the view, that above said reasons are beyond the reasonable control of the petitioner and therefore, capital cost as per RCE is allowed. However, the approved apportioned cost of the individual asset is considered for the purpose of tariff calculations. This approach of restricting the capital cost to the apportioned cost of individual assets has been upheld by the Hon'ble Appellate Tribunal for Electricity in its order dated 28.11.2013 in Appeal No. 165 of 2012, and subsequently the Commission, vide its order dated 18.2.2014 in Petition No. 216/TT/2012, has considered the approved apportioned cost of individual asset for the purpose of tariff determination.

27. The total estimated completion cost of Asset-I, Asset-II (2) and Asset-II (3) exceed the revised approved apportioned cost. Hence, the additional capitalisation claimed during 2016-17 and beyond has been reduced by ₹31231.16 lakh, ₹43.21 lakh and ₹1.62 lakh in case of Asset-I, Asset-II (2) and Asset-II (3) respectively. The capital cost considered for the purpose of computation of transmission charges are as under:-



(₹ in lakh)

Particulars	Revised Apporportioned Cost	Estimated Cost on COD	Add-Cap during			Total Estimated Cost
			2015-16	2016-17	2017-18	
Asset-I	871003.91	806800.85	41595.54	22607.52	-	871003.91
Asset-II (1.b)	8694.41	7005.64	728.00	-	-	-
Combined Asset-II (1a+1b)	11767.82	9303.57	1024.29	842.86	300.00	11470.72
Asset-II (2)	3252.78	2565.59	356.00	331.19	-	3252.78
Asset-II (3)	3175.08	2601.95	317.20	255.93	-	3175.08

Time over-run

28. As per the Investment Approval dated 27.2.2009, the instant assets were to be commissioned within 54 months from the date of IA, i.e. by 1.9.2013. The instant assets were commissioned during 2015-16 and there is time over-run in commissioning of instant assets. The details are as under:-

Particulars	COD		Delay
	Scheduled	Actual	
Asset-I	1.9.2013	1.11.2015	26 Months
Asset-II (1b)		27.10.2015	25 Months 26 Day
Combined Asset-II (1a+1b)		28.10.2015	25 Months 27 Days
Asset-II (2)		1.10.2015	25 Months
Asset-II (3)		19.12.2015	27 Months 18 Days

29. UPPCL has submitted that there was time lag of 7 months from opening of first stage bids and invitation of second stage bids, which seems to be an inordinate long time in evaluation of bids. APDCL has submitted that reasons given by the petitioner for time over-run need to be examined and in case the time over-run is attributable to the petitioner then action may be taken as per provisions of the 2014 Tariff Regulations.

30. The petitioner has submitted reasons for time over-run as under:-

A. ±800 kV HVDC Terminals at Biswanath Chariyali and Agra

There was initial delay in award and contract agreement for HVDC Terminal Package as the project was first of its kind in the country and involved state of art technologies. Two



stage bidding processes under supplier's credit was adopted for HVDC Terminal package under which 1st stage bids were Techno-Commercial Bids and the 2nd stage bids were the price bids along with the financial proposal. The 1st stage bids for the subject packages were invited much in advance on 20.5.2008 and were opened on 14.10.2008. Two firms had submitted their bids. The provision for completion period kept in the bid documents was 39 months for Bipole-I and 42 months for Bipole-II from the date of award. However, the bidding process was annulled due to deviation taken by both the bidders on the project completion schedule as it could not be resolved even after several rounds of discussions. Subsequently, fresh bids for the subject package were invited on 29.5.2009 with the revised completion schedule in line with the generation schedule. 1st stage bids were opened on 30.6.2009. Two firms had submitted their bids. After completion of evaluation of 1st stage bids, the 2nd stage (Price) bids were invited from both the bidders on 3.2.2010 and were opened on 14.5.2010. However, a representation by one of the bidder on various aspects in the bid of the other bidder was submitted to the Independent External Monitor (IEM) appointed under the Integrity Pact immediately after opening of 2nd stage (Price) bids. In view of the technicality involved, the representation was referred for opinion to a Group of Consultants appointed for this project. Thereafter, both the bidders were invited for a joint meeting to explain the bidding process and to call for snap bids. Meanwhile, a Writ Petition (Civil) was filed by one of the bidder on 7.10.2010 and by the other bidder on 14.1.2011 before the Hon'ble High Court of Delhi. Based on the directives of the Hon'ble High Court of Delhi vide its order dated 20.1.2011, evaluation was done and produced before the Court on 3.3.2011. Thereafter, the matter was disposed of by the Hon'ble High Court and the contract was placed on 21.3.2011. As the package was funded through suppliers' credit, financing agencies were invited for finalization immediately thereafter. The loan



agreement was signed on 19th and 21st December, 2011 and after receipt of the statutory clearance of external commercial borrowings on 21.12.2011, the Contract Agreement was signed on 22.12.2011. Therefore, there is an initial delay of 30 months from the date of Investment Approval on account of delay in placing award which is mainly attributable to technological complexities involved in the project, and court cases, etc.

A.1 Delay in execution: The delay in execution is mainly because of various factors viz. delay in land acquisition, RoW vis-a-vis law and order problem at sites, litigations, forest clearance, strikes and bandhs as under:-

(a) **Opposition to initial project activity:**-The Biswanath Chariyali HVDC station is located at Baghmari in Biswanath Sub-division of Sonitpur district in Assam which is a disturbed area infested by banned extremist organizations. There was persistent opposition by villagers since the beginning of construction activities. The villagers/miscreants ransacked site office of the petitioner with a motive to jeopardize the Project activity on 26.1.2012 and on 24.9.2012, the villagers manhandled the petitioners' officials at site creating huge setback to the morale of the petitioner and its contractor and other working agencies. Therefore, due to serious problems at site, one platoon of CRPF personnel was deployed at ± 800 kV Biswanath Chariyali station site, Baghmari w.e.f. 20.11.2012.

(b) **Delay in land acquisition at Biswanath Chariyali HVDC Terminal Station:-** Complete physical possession of the land was not available with the petitioner inspite of the formal land allocation. Therefore, construction activities could not be taken up as planned land was acquired progressively from 29.7.2010 to 24.3.2011.

(c) **Delay in commencement of construction activity due to RoW problems/closing of boundary wall:-**Boundary wall construction was awarded in 2008. However, it could not be completed because of delay in land handing over and opposition by villagers of



surrounding villages. The local protesters had impetus/motivation from the stalemate of nearby directly connected Lower Subansiri HEP which still remains stalled. There were four openings to the boundary wall making two complete thoroughfares. As guided by the District Administration, the petitioner constructed a complete peripheral metal road of about 4 km including 2 (two) bridges surrounding the HVDC station in January, 2013 at a cost of ₹160 lakh and appealed to the villagers to vacate the HVDC station land to facilitate closing of boundary wall and start construction activity. However, the villagers regularly intimidated officials of the petitioner. In view of this situation a concerted effort was made on 30.4.2013 by the petitioner, State Police, District administration and CRPF to close the two thoroughfares but huge law and order situation occurred at site and on advice of State Administration, all construction activities were suspended w.e.f. 30.4.2013. Thereafter, it took several months to remobilise the site and skeletal work started from June, 2013 with police protection amidst the open boundary walls. The issue of closures of boundary walls/thoroughfares was taken up by the petitioner with the Government of Assam and a final effort was made with support of district and police administration on 5.9.2013 and finally the walls were closed with great difficulty. The petitioner has submitted a detailed chronology of events as under:-

Date	Description of event
16.11.2005 & 15.9.2006	Indent for land was submitted to State Government Authorities
4.12.2006	Local Government Authorities forwarded the proposal for allotment of Government land to District Authorities.
20.6.2008	Government Authorities accorded permission to start preliminary works at the sub-station site. Thereafter, petitioner awarded boundary wall construction works.
29.7.2010 & 24.3.2011	About 150 acres of land handed over for Biswanath Chariyali Sub-station.
26.1.2012	Villagers / miscreants ransacked petitioners' site office with ulterior motive to jeopardize the Project activity.
24.9.2012	Villagers manhandled petitioners' officials at site creating huge setback to the morale of petitioner, its contractor and other working agencies.



20.11.2012	Due to serious problems at site, one platoon of CRPF personnel was deployed at ±800 kV Biswanath Chariyali station site, Baghmari initially for 3 months to assist in closing the boundary walls.
30.4.2013	Finally a concerted effort was made by petitioner, State Police, District administration and CRPF to close the two thoroughfares but huge law and order situation occurred at site.
30.4.2013	All construction activities were suspended after incidence of killing of one protester in police firing during efforts to close the boundary wall opening.
13.6.2013	Due to persistent tension and threat from miscreants, its contractor (ABB AB) completely closed their site office and abandoned the site
28.6.2013	It took several months to re-mobilise the site and works started from June 2013 with police protection and construction activities at BNC site including stone piling partially restarted w.e.f. 28.6.2013.
5.9.2013	Boundary walls were closed with great difficulty with help from the Government of Assam on 5.9.2013.

(d) **Delay in transportation of converter transformers:-**The converter transformers of Biswanath Chariyali were brought through Brahmaputra river in October, 2013. However, the barges were not allowed to be brought to site by some activists protesting dam construction who mistook converter transformers as turbines. Later on, after clarifications by the petitioner and with the help of police escort, the barges were brought to site in April, 2014. This resulted in a delay of 7 months.

A.2 ±800 kV HVDC Biswanath Chariyali-Agra Line:- About 400 km route of the line passes through areas in NER, which is constantly troubled due to demonstrations, protests, ethnic clashes, adverse law and order situation and insurgent activities. Further, about 250 km line passing through low lying area in Bihar. The site progress was affected on various accounts as under:-

(a) Violence/riot in Kokrajhar/BTAD (Bodoland Territorial Autonomous District) and other areas, threats from outfit organization/ deteriorated law and order situation:-Ethnic riot/violence erupted frequently in BTAD area during the period from 21.7.2012 to 12.9.2014 severely affecting the works. Frequent communal clash followed by promulgation of Section 144 (Cr. PC) in several Districts of Assam affected progress. Constant threats from various underground organizations, rampant extortion bids and



warnings not to carry out works resulted in loss of valuable working time till negotiations were arrived at. These incidents could not be mitigated despite all possible support and assistance from district authorities and local administration.

(b) **Frequent stoppage of works by various organizations:-**Anti-dam group (namely KRSS, AASU) called for stoppage of work on transmission line from 31.3.2011 and after repeated persuasion of AASU leaders, work started in June, 2011.

(c) **Stoppage of work by land owners:-**Frequent ROW problems also affected the entire stretch and execution of works due to high compensation demand from the land owners. Matter was taken up with state administration but problem still persisted. Further, there had been several diversions of the route of the line due to ROW issues. To avoid RoW issues multi circuit towers were incorporated in Biswanath Chariyali area.

(d) **Delay in forest clearance:-**The work in forest area could not be started in time due to late receipt of forest clearances in UP and Bihar state. The petitioner has submitted detailed status of pending forest clearances of ± 800 kV HVDC Biswanath Chariyali-Agra transmission line as under:-

Sl. No.	Section	Area (Ha)	Proposal submission date	Approval letter date
1	Biswanath Chariyali	22.55	7.5.2007	26.10.2012 & 14.4.2014
2	Ramabainagar (Kanpur Dehat)	1.1667	14.6.2010	8.8.2012
3	Kanpur Nagar	1.0695		
4	Unnao	0.6555		
5	Lucknow	0.1794		
6	Barabanki	0.8418		
7	Saharsa	4.2642	28.9.2010	12.10.2012
8	Gopalganj	5.0922	14.7.2011	30.9.2013
9	Gorakhpur	0.207	31.7.2011	30.9.2013
10	Basti	0.2208	23.8.2010 & 24.9.2010	11.5.2011
11	Agra	0.4692	30.4.2009	31.10.2013
12	Etawah	1.41	13.10.2009	
13	Firozabad	6.5757	22.5.2009	
14	Islampur	7.2816	28.9.2010	



15	Gorakhpur	0.2208	1.8.2013 & 21.12.2009	15.12.2014
16	Faizabad	1.4559	29.7.2011	15.12.2014

(e) **Delay due to route diversion and HFL:-**A section of 400 kV D/C Balipara-Biswanath Chariyali TL from 14/0-19/0 is passing through the old course of Giladhari river where the water table is very high. Accordingly, shallow foundation was proposed for the locations spotted in this area. Therefore, there was a delay in execution of work, as normal foundation could not be carried out due to high water table. Due to ROW issues, the 400 kV D/C Balipara-Biswanath Chariyali TL had to be diverted from Balipara Gantry to 4C/0 involving 10 locations and 3.30 km of line length. Similarly for the 132 kV line, the route of the line had to be diverted from 25/0- Gantry to avoid thickly populated area and market place at Niz Baghmari.

31. Further, during the hearing on 5.7.2016, the learned senior counsel for the petitioner submitted that there is time over-run of 29 months in case of instant assets due to RoW issues. He submitted that Commission in its order dated 26.5.2016 in Petition No. 259/TT/2015 had condoned the time over-run in case of other assets covered in the same corridor and he requested to condone the time over-run in case of the instant assets and allow IDC and IEDC.

32. We have considered the submissions of the Petitioner and Respondents. The Petitioner has explained the reasons for time over-run (a) in respect of +/- 800 kV HVDC terminals at Biswanath Chariyali-Agra and (b) the time over-run in respect of +/- 800 kV HVDC Biswanath Chariyali-Agra Transmission Line. In respect of +/- 800 kV HVDC Biswanath Chariyali-Agra Transmission Line, the reasons for time over-run are (a) delay in obtaining forest clearance, delay due to route diversion, violence in



Kokrajhar-Bodoland Territorial Autonomous District, and stoppage of work by land owners and various anti-dam groups like KRS and AASU.

33. It is noticed that the Petitioner was required to obtain the forest clearance from 16 sections in respect of +/- 800 kV HVDC Biswanath Chariyali-Agra transmission line. The Petitioner had submitted the forest proposal for Biswanath Chariyali line on 7.5.2007 and thereafter forest proposals have been submitted in the year 2009, 2010 and 2011 for the remaining sections of the transmission lines. It is further noted that an area of 22.55 Ha of land was involved in Chariyali section for which the Petitioner could obtain the approval letter from forest authorities on 26.10.2012 and 14.4.2014. The forest approval in other sections was obtained in the year 2001, 2012, 2013 and 2014. The last forest approval was obtained for Gorakhpur-Firozabad on 15.12.2014. Accordingly, the forest clearance for the entire Biswanath Chariyali-Agra transmission line was obtained on 15.12.2014. The entire forest clearance took around 5 years and 10 months. As per the Forest (Conservation) Amendment Rules, 2004 notified by MoEF on 3.2.2004, the timeline for forest approval after submission of proposal is 210 days by the State Government and 90 days by the Forest Advisory Committee of Central Government, resulting in processing time of 300 days. As against the statutory period of 300 days for processing and obtaining the forest clearance, the forest authorities have taken 2130 days for grant of forest clearance. This period is beyond the control of the Petitioner and the Petitioner cannot be held responsible for the delay. However, the Petitioner has expedited the work and completed the transmission line only with a time over-run of 26 months. In our view, had the Petitioner obtained forest clearance within 300 days of its making the application as statutorily provided, the Petitioner would have completed the



transmission line as per the timeline given in the Investment Approval. However, on account of delay in forest clearance which is beyond the control of the Petitioner, the COD of the assets were delayed. Accordingly, the entire period of time over-run in respect of Asset 1 is condoned. Since the other reason for time over-run such as riots in Kokrajhar-Bodoland Territorial Autonomous District, frequent stoppage of work by farmers/anti-dam groups, the said period ran parallel to the period spent for obtaining the forest clearance and accordingly, subsumed in the time for obtaining forest clearance. It is also noticed that there are assets like bays and ICTs which are part of the transmission systems covered under Petition No. 259/TT/2015 and the Commission after considering the reasons for time over-run has condoned the delay. Since the assets covered under the present petition are connected to the assets covered under Petition No. 259/TT/2015 and could not have been put to commercial operation unless the assets covered under Petition No. 259/TT/2015 were ready for COD and the time over-run in case of these assets have been condoned by the Commission, there is a strong case in favour of the assets covered under the present petition for condonation of delay. Accordingly, taking into account all these factors, we are of the view that the time over-run in the present case is beyond the control of the Petitioner and is condoned.

34. Similarly, in respect of AC portion of the assets covered in the instant petition, the petitioner has submitted that the main reasons for the time over-run are on account of delay in forest clearance, delay in land acquisition, law & order situation and RoW issues. The petitioner has placed on record all the correspondences made by it with different institutions to mitigate the issues. We have perused the documents placed on record by the petitioner. As discussed above, it is observed that the petitioner had submitted proposal for



forest clearance on 7.5.2007 for land for HVDC Sub-station at Biswanath Chariyali, however, final approval in this regard was issued on 14.4.2014. The entire process of forest clearance took around 5 years and 2 months. As noted above, the forest clearance has to be granted within 300 days. However, in the instant case it took 1897 days from the date of Investment Approval. Further, the petitioner had approached State Government Authorities for land acquisition even before the Investment Approval. However, land was handed over to the petitioner on 24.3.2011 i.e. after 2 years of Investment Approval. Further, after getting land, the petitioner faced stiff resistance from the villagers because of the law and order situation at Biswanath Chariyali Sub-station and closure of boundary walls of the sub-station premise was finally completed on 5.9.2013 with the help of State Government and CRPF personnel. Since, the time over-run is due to delay in land acquisition, RoW issues and delay in getting forest clearance, we are of the view that the delay due to statutory approvals and land acquisition is beyond the control of the petitioner and hence the time over-run in case of the AC portion of the assets is also condoned.

Treatment of IDC & IEDC

35. The petitioner has claimed Interest During Construction (IDC) accrued and discharged as on the date of commercial operation as under:-

Particulars	IDC		
	Accrual	Discharged up to COD	Balance discharged during 2015-16
Asset-I	97700.68	93187.09**	4513.59
Asset-II (1b)	948.20	948.20	-
Combined Asset-II (1a+1b)	1198.01 [249.81+948.20]	1136.48 [188.28+948.20]	61.53
Asset-II (2)	303.71	303.71	-
Asset-II (3)	247.03	212.74	34.29

**This figure includes finance charges of ₹2299.16 lakh.



36. The petitioner, vide affidavits dated 31.3.2016 and 3.3.2017, has indicated the IDC discharged up to COD. Further, the petitioner has explicitly mentioned that the IDC discharged during 2015-16, as indicated above, has not been included in the add-cap expenditure claimed as per Auditor's/Management Certificates. It has been further submitted that there is no default in the interest payment of any loan. Therefore, IDC has been worked out based on the loans deployed for the instant assets as per Form-9C of the petition. In respect of Asset-II(3), IDC claimed by the petitioner is higher than the IDC worked out by the Commission. However, in respect of Combined Asset-II(1a+1b) and Asset-II(2), IDC claimed by the petitioner is lower than the IDC worked out. Further, IDC in respect of Asset-I comprises of foreign loans, for which, the supporting documents have not been submitted by the petitioner. Therefore, IDC as claimed by the petitioner is considered for tariff computation.

37. Accordingly, IDC amounts discharged upto COD are allowed for the instant assets except for Asset-I. In case of Asset-I, IDC of ₹90887.93 lakh, claimed to be discharged up to COD, is allowed and finance charges of ₹2299.16 lakh, claimed to be discharged up to COD, have not been allowed in the absence of any supporting documents. The petitioner is directed to submit supporting documents in respect of financial charges at the time of determination of final tariff.

38. The balance IDC of ₹4513.59 lakh, ₹61.53 lakh and ₹34.29 lakh in respect of Asset-I, Combined Asset-II (1a+1b) and Asset-II (3) respectively, being undischarged as on COD and claimed to be discharged during 2015-16, are added along with the add-cap claimed during 2015-16. The IDC allowed would be reviewed at the time of truing-up which would be considered after prudence check.



39. Similarly, the petitioner has claimed Incidental Expenditure During Construction (IEDC). However, the petitioner has not submitted details for IEDC on cash basis. Therefore, IEDC has been worked out as 3% approximately on Hard Cost submitted in the Abstract Cost Estimates by the petitioner. Thus, in the absence of proper and sufficient details, IEDC claimed is restricted to 3% of Hard Cost or the claimed amount, whichever is lower upto date of commercial operation for the purpose of the tariff in the instant petition as follows:-

Particulars	Hard Cost Claimed as on COD	IEDC (₹ in lakh)		
		Claimed	Considered (3% of Hard Cost or claimed amount, whichever is less)	Disallowed
Asset-I	681249.22	27850.95	20437.48	7413.47
Asset-II (1b)	-	-	-	-
Combined Asset-II (1a+1b)	8680.70	424.86	230.42	194.44
Asset-II (2)	2160.64	101.24	64.82	36.42
Asset-II (3)	2309.79	45.13	45.13	-

40. Regulation 14 of the 2014 Tariff Regulations provides for the treatment of undischarged liabilities after the same are discharged. However, as the petitioner has not submitted the required information with regard to the IEDC actually discharged, we are not inclined to allow the amount of IEDC as claimed by the petitioner. The petitioner is directed to submit the year wise details of actual amount of IEDC pertaining to the transmission assets considered in this petition upto date of commercial operation as per Form-12A. IEDC allowed shall be reviewed at the time of grant of final tariff on submission of adequate and proper information by the petitioner in respect of IEDC.



Initial Spares

41. Regulation 13 of the 2014 Tariff Regulations specifies ceiling norms for capitalization of initial spares in respect of transmission system as under:-

“13. Initial Spares

Initial spares shall be capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:

(d) Transmission system

(i) Transmission line-1.00%

(ii) Transmission Sub-station (Green Field)-4.00%

(iii) Transmission Sub-station (Brown Field)-6.00%

(iv) Series Compensation devices and HVDC Station-4.00%

(v) Gas Insulated Sub-station (GIS)-5.00%

(vi) Communication system-3.5%

Provided that:

(i) where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:

(ii) -----

(iii) Once the transmission project is commissioned, the cost of initial spares shall be restricted on the basis of plant and machinery cost corresponding to the transmission project at the time of truing up:

(iv) for the purpose of computing the cost of initial spares, plant and machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the break up of head wise IDC & IEDC in its tariff application.

42. The petitioner has claimed the initial spares for the instant assets as under:-

Particulars	(₹ in lakh)	
	Transmission Line	Sub-Station
Asset-I	4635.96	7362.84
Asset-II (1b)	-	-
Combined Asset-II (1a+1b)	62.33	-
Asset-II (2)	125.06	25.85
Asset-II (3)	-	24.30



43. UPPCL has submitted that there is a mismatch in details of expenditure as per Form-5 and as per Auditors' Certificates and a significant shortfall in amount incurred vis a vis budgeted expenditure. UPPCL has further submitted that as such non-availability of spares from OEM becomes a reason for replacement of capital equipment later in life of the capital asset. The petitioner vide rejoinder dated 18.12.2015 has submitted that there was an inadvertent mistake and has submitted revised Form-5. The petitioner has also submitted that small variation of ₹1.01 lakh and ₹3.71 lakh, in case of 132 kV Biswanath Chariyali (PG)-Biswanath Chariyali (AEGCL) line and 200 MVA, 400/132/33 kV ICT-1 at Biswanath Chariyali respectively, is on account of taxes and duties as these are shown separately in Form-5 under the head of "taxes and duties", whereas the amount shown in the Management certificate is inclusive of taxes and duties. As regards, reasons for significant shortfall in amount incurred vis a vis budgeted expenditure, the petitioner has submitted that in case of AC system at HVDC station, spares and its individual items are not available element wise as LOAs are placed on typical BOQs based on complete system for location wise and spares are not indentified with respect to individual element and in case of Sub-station (i.e. LILO of 400 kV D/C Ranganadi-Balipara TL at Biswanath Chariyali Sub-station) no initial spare cost is shown as the spares were included in other asset 400 kV D/C Balipara-Biswanath Chariyali T/L. APDCL has submitted that the cost of initial spares be limited, as specified in the 2014 Tariff Regulations.

44. Initial spares claimed by the petitioner in respect of Asset-I corresponding to Transmission Line and Asset-II(2) and Asset-II(3) corresponding to sub-station are within the ceiling limit as specified under Regulation 13 of the 2014 Tariff Regulations, hence, same are allowed as claimed as on COD. However, initial spares claimed in respect of Asset-1 corresponding to sub-station and Combined Asset-II (1a+1b) and Asset-II(2)



corresponding to transmission line are higher than the ceiling limit specified in Regulation 13 of the 2014 Tariff Regulations. Accordingly, the excess initial spares claimed in respect of Asset-I, Combined Asset-II(1a+1b) and Asset-II(2) have been deducted to determine the capital cost, as on COD as follows:-

(₹ in lakh)

Particulars	Hard Cost (Plant and machinery cost excluding IDC, IEDC, Land cost and cost of Civil works) up to Cut-off date	Initial Spares Claimed against Capital Cost Claimed	Ceiling Limit as per 2014 Tariff Regulations	Initial Spares	
				worked out	Excess claimed
Asset-I (sub-station)	175864.90	7362.84	4.00%	7020.92	341.92
Combined Asset-II (1a+1b) T/L	6170.97	62.33	1.00%	61.70	0.63
Asset-II (2)	1063.93	125.06	1.00%	9.48	115.58

45. The capital cost as on the date of commercial operation after taking into account admissible IDC, IEDC and admissible cost of initial spares has been considered for the purpose of the determination of transmission tariff as under:-

(₹ in lakh)

Particulars	Capital cost considered as on COD before adjustment of IDC and IEDC and initial spares	Disallowed as on COD			Capital cost as on COD allowed for tariff calculation
		IDC	IEDC	Excess initial spares	
		(A)	(B)	(C)	
Asset-I	806800.85	6812.75	7413.47	341.92	792232.71
Asset-II (1b)	7005.64	-	-	-	7005.64
Combined Asset-II (1a+1b)	9303.57	61.53	194.44	0.63	9046.97
Asset-II (2)	2565.59	-	36.42	115.58	2413.59
Asset-II (3)	2601.95	34.29	-	-	2567.66

Projected Additional Capital Expenditure

46. 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 recognised to be payable at a future date;

(ii) Works deferred for execution;

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

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

(v) Change in Law or compliance of any existing law.”

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

47. Clause (13) of Regulation 3 of the 2014 Tariff Regulations defines “cut-off” date as under:-

“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 the year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation”.

48. Therefore, the cut-off date for the instant assets is 31.3.2018.

49. APDCL has submitted that add-cap be allowed only for those items which are admissible as per provisions of the 2014 Tariff Regulations. The additional capital expenditure deemed to have been claimed by the petitioner, is as hereunder:-

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	Total
Asset-I	41595.54	22607.52	-	64203.06
Asset-II (1b)	728.00	-	-	728.00
Combined Asset-II (1a+1b)	1024.29	842.86	300.00	2167.15
Asset-II (2)	356.00	331.19	-	687.19
Asset-II (3)	317.20	255.93	-	573.13

50. Further, as discussed earlier in the order, the undischarged IDC of ₹4513.59 lakh, ₹61.53 lakh and ₹34.29 lakh in respect of Asset-I, Combined Asset-II (1a+1b) and Asset-II



(3) respectively, claimed to be discharged during 2015-16, are added along with the add-cap during 2015-16. However, in case of Asset-II (1b), it has only been considered for 2015-16 to determine AFC on annualized bases. Thus, the details of total add-cap allowed for tariff purpose are as follows:-

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	Total
Asset-I	46109.13	22607.52	0.00	68716.65
Asset-II (1b)	728.00	-	-	728.00
Combined Asset-II (1a+1b)	1085.82	842.86	300.00	2228.68
Asset-II (2)	356.00	331.19	0.00	687.19
Asset-II (3)	351.49	255.93	0.00	607.42

51. The capital cost as determined above shall be reduced by the grants from PSDF and NECF as and when the same is revived.

52. The other components of tariff and the final tariff will be determined after receipt of grant/ assistance under PSDF and NCEF. The petitioner would continue to recover the AFC granted vide order dated 8.1.2016 as per the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time. The petitioner is directed to file a fresh petition after receipt of grant/assistance from the Government of India. As the petitioner has already issued public notice in the newspapers as provided in the Central Electricity Regulatory Commission (Procedure for making of application for determination of tariff, publication of the application and other related matters) Regulations, 2004 in case of the instant assets, we are of the view that there is no need to issue any fresh notice at the time of filing of fresh petition. The petitioner is also exempted from payment of filing fee.



53. This order disposes of Petition No. 67/TT/2015.

sd/-
(M.K. Iyer)
Member

sd/-
(A.S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(Gireesh B. Pradhan)
Chairperson

