BEFORE THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

Quorum

Shri Desh Deepak Verma, Chairman Shri I. B. Pandey, Member

Petition No. 837/2012

Petitioner

In the matter of:

Fixation of transmission tariff for 7.2 KM 400 KV dedicated transmission line constructed by Rosa Power Supply Company Ltd. to connect Rosa TPP to PGCIL grid as per memorandum of understanding (MOU) signed between UPPCL and RPSCL.

Petitioner

Rosa Power Supply Company Ltd. (the Company), Administrative Block, Hardoi Road, P.O. Rosar Kothi, Tehsil Sadar, District Shahjahanpur, UP-242401

Uttar Pradesh Power Corporation Ltd., 14, Ashok Marg, Shakti Bhawan, Lucknow.

Respondent

Present in the Hearing:

- 1. Shri V. P. Srivastava, Chief Engineer, PPA, UPPCL
- 2. Shri R. Bhatnagar, Superintending Engineer, PPA, UPPCL
- 3. Shri Haroon Aslam, Executive Engineer, PPA, UPPCL
- 4. Shri Vibhav Agarwal, Rosa Power Supply Co. Ltd.
- 5. Shri Sumeet Notani, Rosa Power Supply Co. Ltd.
- 6. Shri Himanshu Agarwal, Rosa Power Supply Co. Ltd.
- 7. Shri Ambuj Shukla, Rosa Power Supply Co. Ltd.
- 8. Shri Santosh Singh, Rosa Power Supply Co. Ltd.
- 9. Shri Avadhesh Kumar Verma, Chairman, U.P. Rajya Vidyut Upbhokta Parishad
- 10. Shri Ramashankar Awasthi

ORDER

(Hearing on 21.09.2015)

1. Background

- 1.1 M/s Rosa Power Supply Company Ltd. filed Petition for fixation of Transmission Tariff for 7.2 KM 400 KV dedicated Transmission Line constructed for connecting. Rosa Thermal Power Plant to Power Grid Corporation of India Ltd. (PGCIL) grid as per memorandum of understanding (MOU) signed between U.P. Power Corporation Ltd. and Rosa Power Supply Company Ltd. for the tariff period 2011-14 on 20.01.2012.
- 1.2 The Petitioner M/s Rosa Power Supply Company Ltd. as well as the Respondent Uttar Pradesh Power Corporation Ltd. were required to appear before the Commission in person or through duly authorized representative to answer all material questions related with the matter along with relevant documents on 17.03.2015. which was attended by both the parties. The petition was admitted and the Respondent UPPCL was required to file its reply within one month.
- 1.3 The Petitioner filed the revised submission on Affidavit vide letter dated 15.07.2015 on the basis of which the date of Public Hearing was fixed to be held on 15.09.2015 at 11:30 hrs. in the office of the Commission vide Public Notice no. UPERC/Secy/VCA/2015-1126 dated 27/28.08.2015 which was also got published in Hindustan Times and Amar Ujala news papers on 29.08.2015. The Public Hearing so fixed on 15.09.2015 was, however, postponed and the new date of hearing was fixed on 21.09.2015 at 11:30 hrs. at the same venue, which was also got published in Hindustan Times and Amar Ujala news papers dated 15.09.2015. In the meantime the U.P. Power Corporation Ltd. being respondent in the matter filed an Affidavit dated 14.09.2015

pointing out discrepancy in the affidavit of Petitioner which was dated 14.07.2015 while the Petition relating to revised submission was dated 15.07.2015. UPPCL therefore requested the Commission to direct the Petitioner to file a fresh petition for raising the grievances before the Commission.

- 1.4 In the Public Hearing held on 21.09.2015, Shri Rama Shankar Awasthi raised an objection that how a generating company can file a petition for Transmission Tariff when the company has no transmission licence. In this context his attention was invited to the provisions as contained in Ministry of Power Order dated 03.06.2005 wherein it was amply clarified that generating company or a person setting up a captive generating plant shall not be required to obtain a licence under the Act for establishing, operating or maintaining a dedicated Transmission Line if such company or person complies with the following:
 - (a) Grid Code and standards of grid connectivity.
 - (b) Technical standards for construction of electric lines.
 - (c) System of operation of such a dedicated transmission line as per the norms of System of operation of the concerned State Load Despatch Centre (SLDC) or Regional Load Despatch Centre (RLDC)
 - (d) Directions of concerned SLDC or RLDC regarding operation of the dedicated Transmission Line.

Since the Petitioner fulfills all these requirements and therefore "the transmission line so constructed was not required to obtain the Transmission Licence. The petition was admitted vide Commission's order dated 14.7.2015.

1.5 The U.P. Power Corporation Ltd. being Respondent in the matter filed another Counter Affidavit wherein it was questioned whether approval of CEA/PGCIL was obtained for the construction of this transmission line; in response of which Petitioner has provided the copy of Minutes of connectivity/Long Term Access Meeting with Northern Region Constituents held on 02.01.2013 at Power Grid, Gurgaon according to which the connectivity was approved. The brief of the proceedings of Power Grid meeting held on 02.01.2013 are as under:

Long Term Open Access to Rosa Power Company

POWERGRID informed that M/s Rosa Power Supply Power Company Ltd. (RSPCL) had applied for LTOA for transfer of 300 MW of power from stage II (2x300 MW) of Rosa Power Project located at Shahjahanpur, U.P. As per the application the target beneficiaries of the project were Delhi (150 MW) and Haryana (150 MW). The LTOA application was discussed and agreed in the Long Term Open Access meeting held on 30.05.2009 along-with 27th Standing Committee Meeting of Northern Region Power from the generation project is to be injected at Shahjahanpur 400/200 KV sub station of POWERGRID. Accordingly, LTOA intimation was issued and BPTA was signed on 23.11.2009. RSPCL now has intimated that they have finalized the long term sale of power from Rosa TPP Phase II to UPPCL and also signed PPA with them. In view of this M/s RSPCL has requested for the modifications as follows:

Name of beneficiary – Uttar Pradesh

Location – Interface point between ISTS and UPPCL grid in Uttar Pradesh

Region – Northern Region

Capacity – 300 MW

POWERGRID proposed the beneficiary may be modified as Uttar Pradesh instead of Delhi and Haryana as requested by RSPCL. The total quantum of LTOA shall remain the same. As Uttar Pradesh is direct beneficiary it was preferred that transmission charges may be billed directly to UP. Representative of Uttar Pradesh agreed for the same.

Further, it was explained that Long Term Access was granted subject to commissioning of Lucknow- Bareilly-Meerut 765 KV one circuit and Bareilly-Kashipur-Roorkee-Shaharanpur 400 KV D/C (Quad Conductor), as the power was to be transferred outside the State to Delhi and Haryana. However as per the present scenario, power is to be delivered within Uttar Pradesh, it is therefore, proposed that Long Term Access would be subject to commissioning of Bareilly-Roorkee 400 KV D/C (Quad Conductor) and Commissioning of Shahjahanpur sub station.

Members discussed and concurred to the proposal.

1.6 Out of the total capacity of Rosa Thermal Power Plant setup by the Petitioner in District Shahjahanpur of U.P. in two phases of 600 MW each, phase 1 of the project consists of unit I and unit II each having gross generation capacity of 300 MW each was earmarked to U.P. Power Corporation Ltd. for supply of entire 600 MW as per the Power Purchase Agreement (PPA) entered on 12.11.2006. Through a Supplementary PPA entered on 11.09.2009, 300 MW capacity out of Phase II was also earmarked to U.P. Power Corporation Ltd. The remaining capacity of 300 MW of Phase II was retained by the Petitioner for Trading Purposes for which Long Term Open Access (LTOA) arrangement was entered into with POWERGRID for supply of

power to Delhi and Haryana in the meeting held on 30.05.2009. Subsequently the 300 MW capacity of Phase II of Rosa Thermal Power Plant retained by the Petitioner for Trading was also earmarked to UP Power Corporation Ltd. through an amendment to supplementary Power Purchase Agreement issued on 19.11.2011. For supply of 300 MW power retained by the Petitioner for Trading, the Petitioner entered into an agreement with PGCIL for constructions of bays at 400 KV sub station of PGCIL at Shahjahanpur for inter–connection to net work of PGCIL. Accordingly the Petitioner has constructed a 400 KV dedicated transmission line connecting Phase II switchyard of Rosa Power Plant with 400 KV sub station of PGCIL at Shahjahanpur.

- 1.7 Through a Memorandum of Understanding (MOU) entered between the Petitioner and U.P. Power Corporation Ltd. on 20.01.2012 entire 300 MW power from Phase II of Rosa Thermal Power Plant was agreed to be evacuated by using 400/220 KV ICT as well ISTS net work of PGCIL through the above mentioned 400 KV dedicated transmission line as follows:
 - i. Petitioner shall operate and maintain 400 KV dedicated transmission line connecting Phase II switch yard with net work of PGCIL to the extent of capacity available and feasible for evacuation and transmission of power from any of the units including unit I, II, III and IV of Rosa Thermal Power Plant.
 - ii. U.P. Power Corporation Ltd. shall bear all applicable connectivity and transmission charges inclusive of all applicable taxes and duties and transmission losses for ISTS network including all the charges payable under the Bulk Power

- Transmission Agreement including charges for applicable Bank Guarantees by reimbursing the same to the Petitioner.
- iii. Any subsequent change in charges payable arising out revision of regulations for connectivity and Long Term Open Access (LTOA) in ISTS system shall also be on account of U.P. Power Corporation Ltd.
- iv. U.P. Power Corporation Ltd. shall bear all transmission charges for 400 KV dedicated transmission line as determined by UPERC on a petition to be filed by the Petitioner excluding the Transmission Losses for 400 KV dedicated line which shall be to Petitioner's account.
- 1.8 According to the Amendment to Supplementary Power Purchase Agreement dated 19.11.2011 for purchase of entire 600 MW capacity of Phase II of Rosa Thermal Power Plant and U.P. Power Corporation Ltd. desiring evacuation of entire 300 MW power from Phase II using 400/220 KV ICT as well as ISTS net work of PGCIL through the above mentioned 400 KV dedicated transmission line, the Petitioner has got constructed 7.2 Km dedicated transmission line from Rosa Thermal Power Plant to PGCIL net work at Shahjahanpur and has filed this ARR and Tariff petition before UPERC for fixation of Tariff from March 15, 2012 which is the date when the line was charged.
- 1.9 According to Petitioner the final cost of the line has been estimated to the extent of Rs. 45.07 crore out of which Rs. 25.49 crore has said to have been incurred till 01.04.2012. The Petitioner through its revised submission dated 15.07.2015 though maintained the final cost to the extent of Rs. 45.07 crore out of which the expenditure

to the extent of Rs. 28.79 crore has been stated to be capitalized in 2012-13 and the balance of Rs.16.28 crore belonging primarily to the cost of dedicated bays at PGCIL Shahjahanpur substation which is being constructed on Deposit work basis was expected to be completed by the end of FY 2015-16. However as per the details of the capital expenditure incurred till FY 2011-12 Rs. 27.65 crore and the balance of Rs. 1.14 crore incurred in FY 2012-13.

1.10 The Transmission Line so constructed by the Petitioner was connected to CTU network on 15.03.2012. The Tariff has therefore been claimed with effect from 15.03.2012 to the end of FY 2015-16 excluding the cost of dedicated Bays at PGCIL Sub station, Shahjanhanpur scheduled to be constructed by 31.03.2016, the cost of which is worked out as Rs. 16.28 crore. The Tariff has therefore been claimed to be determined for 7.2 Km dedicated Transmission Line only for which the capital cost is worked out as Rs. 27.65 crore till end of FY 2011-12 and Rs. 28.79 crore from FY 2012-13 and onward. The Return on Equity, Interest on Loans, Depreciation and Operation and Maintenance express have been claimed at the rates given below:

Return on Equity 16.0%

Depreciation 3.63%

O & M Expenses 2.0%

Advance Against Deprecation and the Interest on working capital have been claimed as per Regulations and the Ratio of Debt & Equity has also been maintained at 70:30 as provided in the Regulations. The Abstract of the ARR and the Tariff claimed by the Petitioner for each Financial Yearreckoning from FY 2011-12 toFY 2015-16 is as under:

11. ARR and Tariff as claimed by the Petitioner

In the petition the petitioner has proposed the capital cost of Transmission Line and the Transmission Charges as given in the table below:

(Rs Crore)

SI.	Particulars	2011-12	2012-13	2013-14	2014-15	2015-16
No.						
1	Total Cost	27.65	28.79	28.79	28.79	45.07
2	Debts	19.36	20.15	20.15	20.15	20.15
3	Equity	8.30	8.64	8.64	8.64	8.64
4	Depreciation	0.04	1.05	1.05	1.05	1.05
5	Interest on Loan	0.03	2.01	1.83	1.74	2.17
6	Return on Equity	0.06	1.38	1.38	1.38	1.38
7	Advance Against	0.37	0.59	0.53	0.59	0.96
	Depreciation					
8	Interest on Working	0.01	0.16	0.16	0.16	0.18
	Capital					
9	O & M Expense	0.02	0.58	0.58	0.58	0.58
	Total	0.53	5.77	5.58	5.50	6.31

- 11.1 The capital Cost so claimed by the Petitioner for the construction of 7.2 Km of
 Transmission Line is Rs. 28.79 crore which isworked out to Rs. 4.00 per Km.
 When compared with per cktKm cost of Transmission Lines it appears to be higher side for which the Petitioner has put forth the following reasons:
 - i. It may not be prudent to compare cost of such small transmission line, which has been set up hurriedly and under unusual circumstances with the long distance high capacity transmission line which are constructed by various State and Central Transmission utilities in past by Central and State Transmission utilities having core business of transmission system and also have long term contracts with the vendors to supply material and services in bulk at comparative prices and the works executed in a reasonable time

frame. Obviously, this was not the case with this 400 KV D.C transmission line set up by the Petitioner.

- ii. The cost of transmission line can vary to a great extent with the terrain conditions, soil conditions and most important by Right of Way constraints. The constructions of this 7.2 Km Transmission Line was also fraught with various challenges, such as various highway crossings, forest crossings soil conditions which led to make use of more number of towers of various categories and building foundations to take care of highway crossings and railway crossings.
- iii. For obtaining Right of Way, significant cost was incurred in providing crop compensation to the farmers since crop in all such fields were destroyed due to movement of construction material through dumpers and Trolley. There were about 2350 trees comprising 1400 Popular, 900 Eucalyptus and 50 others which were falling under the transmission line belonging to different land owners along side the route which were required to the cut permanently for line stringing and erection work for which Compensation was paid to the affected land owners.
- 12. The Commission while finalizing the cost decided to compare the rate of the Transmission Line constructed by the Petitioner with any such LILO Transmission Line of the same capacity and having more or less the same length. Incidentally the tariff for Bachau–Varsanol (GETCO) 400 KV D/C

Transmission Line having length of 9.274 Km, got constructed by Power Grid Corporation of India Ltd. alongwith 2 Nos. Sub stations was determined by the Central Electricity Regulatory Commission vide order dated 22.3.2016 in petition no. 413/77/2014. The cost of 9.274 Km of Transmission Line excluding the cost of 2 nos, Sub stations was intimated to Rs. 34.82 crore as on 07.01.2015. As such the cost per Km is worked out to Rs. 3.75 crore per Km. Since it is the cost of FY 2014-15, therefore to work out the cost in FY 2011-12 by neutralizing the price escalation as per WPI &CPI in the ratio of 60: 40 index the cost per Km in FY 2011-12 has been worked out as mentioned below:

Sr	Financial Year	Cost per cktkm in Rs Cr	Escalation rate (CPI 60% & WPI 40%)
1	2014-15	3.75	4.02
2	2013-14	3.60	7.69
3	2012-13	3.32	8.75
4	2011-12	3.03	

The Commission decided to determine the tariff of Transmission Lines considering the above rate of Rs. 3.03 crore per ckt Km and therefore the construction cost of 7.2 Km, dedicated Transmission Line is worked out to Rs. 21.82 crore which will be Gross fixed Asset value in FY 2011-12 The Tariff is therefore worked out taking the value of Gross Fixed Assets accordingly for which the norms as described here under would be applicable.

13. ARR and Tariff as determined by the Commission

(a) The petitioner has filed petition for the period FY 2011-12 to FY 2015-16 only as FY 2015-16 is over, the Commission decided approve the same to end of FY 2016-17. For determination of fixed charges for the period of FY 2011-12 to FY 2016-17, the Page 11 of 15

Commission decided to allow the components of fixed charges as mentioned in the table below:

Component of fixed charges	Values	Remark
Return on Equity	14 %	As Per Regulations
Interest on Loan	11.43 %	As per Regulations weighted average of Interest on Loans
O & M Expense	2.0 %	As per clause 4.2 (3) 2.5% of capital addition during the current year but petitioner has claimed it as 2% so it is taken as 2%
Interest on working Capital	12.50 %	As per Regulations
Depreciation	3.63 %	As per Regulations
Advance against Depreciation	3.37%	As per Regulations

Regulation means "Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2006."

(b) Gross Fixed Assets (GFA) and its components

For the determination of Return on Equity, interest on balance loans and Depreciation it is essential to determine the value of GFA duly supported with the financing program and the value of Net Fixed Assets (NFA) at the end of each financial year. Hence, the GFA and NFA at the end of each financial year commencing from FY 2011-12 & FY 2016-17 have been worked out along with Equity and Debts base figures as allowed in the Financial Year 2011-12 and subsequent years thereafter.

Calculation of GFA and NFA including financing

(Rs Crore)

Particulars	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Opening GFA	-	20.95	21.82	21.82	21.82	21.82
Additions	20.95	0.87	-	-	-	-
Closing GFA	20.95	21.82	21.82	21.82	21.82	21.82
Financing:						
Opening Equity	-	6.28	6.54	6.54	6.54	6.54
Additions	6.28	0.26	-	-	-	-
Closing Equity	6.28	6.54	6.54	6.54	6.54	6.54
Opening Debts	-	14.60	13.84	12.46	11.09	9.71
Additions	14.66	0.61	-	-	-	-
Less	0.06	1.37	1.37	1.37	1.37	1.37
Repayments						
Closing Debts	14.60	13.84	12.46	11.09	9.71	8.34

Opening	-	0.06	1.44	2.81	4.18	5.56
Accumulated Depreciation						
	0.02	0.74	0.74	0.74	0.74	0.74
Depreciation during the year	0.03	0.71	0.71	0.71	0.71	0.71
Advance	0.03	0.66	0.66	0.66	0.66	0.66
Against						
Depreciation						
Closing	0.06	1.44	2.81	4.18	5.56	6.93
Depreciation						
Closing NFA	20.88	20.38	19.01	17.63	16.26	14.88

(c) ROE, Depreciation, O & M Charge and Interest on Loans

On the basis of decision of the Commission in foregoing paragraphs and the details of GFA, NFA and financing as above at the end of each financial year from FY 2011-12 to FY 2016-17 Return on Equity. Depreciation, Operation and Maintenance charges and Interest on Loans are worked out as under:

Details of ROE, Depreciation, O & M charges and Interest on loans

(Rs. Crore)

SI. No.	Particulars	2011-12(w.e.f 15.03.12)	2012-13	2013-14	2014-15	2015-16	2016-17
1	Return on Equity	0.02	0.90	0.92	0.92	0.92	0.92
5	Interest on Loans	0.04	1.63	1.50	1.35	1.19	1.03
2	Depreciation	0.03	0.71	0.71	0.71	0.71	0.71
3	Advance Against Depreciation	0.03	0.66	0.66	0.66	0.66	0.66
4	O & M Charges	0.01	0.42	0.47	0.49	0.49	0.50
6	Interest on working capital	0.00	0.11	0.11	0.10	0.10	0.10
	Total	0.13	4.32	4.26	4.12	3.97	3.82

(d) Working Capital as determined by the Commission and computation of Interest thereon.

(Rs Crore)

SI. No.	Particulars	2011- 12(w.e.f 15.03.12)	2012-13	2013-14	2014-15	2015-16	2016-17
1	One month's O & M Expenses	0.02	0.03	0.04	0.04	0.04	0.04
2	Maintenance Spares	0.10	0.10	0.10	0.10	0.10	0.10
3	Receivables for 2 months	0.47	0.72	0.71	0.69	0.66	0.64
4	Total working capital	0.58	0.85	0.85	0.83	0.80	0.78
5	Rates of interest	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
		0.00	0.11	0.11	0.10	0.10	0.10

(e) Comparative table of Transmission charges as claimed by the petition vis. a vis as determined by the Commission

(Rs. Crore)

		2011-12(w.e.f 15.03.12)			FY 2012-13			
SI. No.	Particulars	As claimed by RPSCL	As determine d by Commissi on	Difference	As claimed by RPSCL	As determin ed by Commiss ion	Difference	
1	Return on Equity	0.06	0.02	(0.04)	1.38	0.90	(0.48)	
2	Interest on Loans	0.03	0.04	0.01	2.01	1.63	(0.38)	
3	Depreciation	0.04	0.03	(0.01)	1.05	0.71	(0.34)	
4	Advance Against Deprecation	0.37	0.03	(0.34)	0.59	0.66	0.07	
5	O & M Expenses	0.02	0.01	(0.01)	0.58	0.42	(0.16)	
6	Interest on working capital	0.01	0.00	(0.01)	0.16	0.11	(0.05)	
	Total	0.53	0.13	(0.40)	5.77	4.42	(1.35)	

SI. No.	Particulars		FY 2013-1	4	FY 2014-15		
	Particulars	As claimed by RPSCL	As determin ed by Commiss ion	Difference	As claimed by RPSCL	As determin ed by Commiss ion	Difference
1	Return on Equity	1.38	0.92	(0.46)	1.38	0.92	(0.46)
2	Interest on Loans	1.83	1.50	(0.33)	1.74	1.35	(0.39)
3	Depreciation	1.05	0.71	(0.34)	1.05	0.71	(0.34)
4	Advance Against Deprecation	0.59	0.66	0.07	0.59	0.66	0.07
5	O & M Expenses	0.58	0.47	(0.11)	0.58	0.49	(0.09)
6	Interest on working capital	0.16	0.11	(0.05)	0.16	0.10	(0.06)
	Total	5.58	4.37	(1.21)	5.5	4.12	(1.38)

(Rs. Crore)

			FY 2015-16		FY 2016-17			
SI. No.	Particulars	As claimed by RPSCL	As determin ed by Commiss ion	Difference	As claimed by RPSCL	As determin ed by Commiss ion	Difference	
1	Return on Equity	1.38	0.92	(0.46)	-	0.92	0.92	
2	Interest on Loans	2.17	1.19	(0.98)	-	1.03	1.03	
3	Depreciation	1.05	0.71	(0.34)	-	0.71	0.71	
4	Advance Against Deprecation	0.96	0.66	(0.30)	-	0.66	0.66	
5	O & M Expenses	0.58	0.49	(0.09)	-	0.50	0.50	
6	Interest on working capital	0.18	0.10	(80.0)	-	0.10	0.10	
	Total	6.31	4.07	(2.24)	-	3.92	3.92	

The Petitioner, Rosa Power Supply Company Ltd. shall claim the Transmission Charges on half yearly basis from the Respondent, Uttar Pradesh Power Corporation Ltd.

The Petition is disposed off.

(I. B. Pandey) Member

Dated: 29.06.2016

(Desh Deepak Verma) Chairman