

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram**

1. **Shri Bhanu Bhushan, Member**
2. **Shri R. Krishnamoorthy, Member**

**Petition No. 101/2004**

**In the matter of**

Approval of tariff in respect of Bairasuil Transmission System in Northern Region for the period 1.4.2004 to 31.3.2009.

**Petition No. 102/2004**

**And in the matter of**

Approval of tariff in respect of Singrauli Transmission System in Northern Region for the period 1.4.2004 to 31.3.2009.

**Petition No. 103/2004**

**And in the matter of**

Approval of tariff in respect of Salal Stage-II Transmission System in Northern Region for the period 1.4.2004 to 31.3.2009.

**Petition No. 106/2004**

**And in the matter of**

Approval of tariff in respect of Moga-Hissar-Bhiwani Transmission System in Northern Region for the period 1.4.2004 to 31.3.2009.

**Petition No. 108/2004**

**And in the matter of**

Approval of tariff in respect of Tanakpur Transmission System in Northern Region for the period 1.4.2004 to 31.3.2009.

**Petition No. 110/2004**

**And in the matter of**

Approval of tariff in respect of Salal Stage-I Transmission System in Northern Region for the period 1.4.2004 to 31.3.2009.

**And in the matter of**

Power Grid Corporation of India Ltd., Gurgaon

**.... Petitioner**

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited, Jaipur
2. Ajmer Vidyut Vitran Nigam Ltd., Ajmer

3. Jaipur Vidyut Vitran Nigam Ltd., Jaipur
4. Jodhpur Vidyut Vitran Nigam Ltd., Jodhpur
5. Himachal Pradesh State Electricity Board, Shimla
6. Punjab State Electricity Board, Patiala
7. Haryana Vidyut Prasaran Nigam Ltd., Panchkula
8. Power Development Deptt., Govt. of Jammu & Kashmir, Jammu
9. Uttar Pradesh Power Corporation Limited, Lucknow
10. Delhi Transco Limited, New Delhi
11. Chandigarh Administration, Chandigarh
12. Uttaranchal Power Corporation Limited, Dehradun
13. Chief Electrical Distribution Engineer, Northern Railway, New Delhi..

.... Respondents

## **ORDER**

In these petitions, the petitioner, Power Grid Corporation of India Ltd had sought approval for tariff in respect of its above-named transmission assets in Northern Region for the period from 1.4.2004 to 31.3.2009 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, (hereinafter referred to as “the 2004 regulations”). On completion of pleadings and after hearing the parties, final tariff in respect of the transmission assets for the period 1.4.2004 to 31.3.2009 was awarded by the Commission. The details of the orders, capital cost considered in these orders and final tariff awarded by the Commission are given in Annexures I to VI of this order.

2. Through this order, we are revising the tariff in the process of implementation of the judgment of the Appellate Tribunal for Electricity (hereinafter referred to as “the Appellate Tribunal”) dated 16.5.2007 in Appeal No. 121 of 2005. Briefly, the background of the case is as under:

(a) The petitioner, on its establishment, took-over the transmission network from the central generating companies like NTPC, NHPC, NLC and NEEPCO with effect from 1.4.1992 on book value.

(b) Prior to setting up of the Commission, the tariff for the various transmission systems owned by the petitioner was fixed by the Central Government in Ministry of Power, based on advice from the Central Electricity Authority.

(c) For the purpose of tariff determination, Ministry of Power considered the capital cost on the following basis:

(i) Capital cost as on 31.3.1992 was notionally divided into debt and equity in the ratio of 50:50.

(ii) Cumulative depreciation accrued till 31.3.1992 was deducted from capital cost as at (a) above to arrive at net asset value which was used for tariff purposes.

(iii) Net asset value obtained at (ii) above, was divided notionally into debt and equity in the ratio of 50:50. In other words, both debt and equity as in (i) above were reduced equally by one-half of the cumulative depreciation accruing till 31.3.1992 mentioned in (ii) above.

(iv) This approach was continued during 1.4.1992 to 31.3.1997, with equity getting depleted further by 50% of depreciation amount charged during this period.

(v) The approach was discontinued after 31.3.1997, and there was no further depletion of equity thereafter.

(d) When the Commission determined tariff for the various assets of the petitioner, following the approach adopted by Ministry of Power, 50%

of the Net Fixed Asset as on 1.4.1997 was taken as the equity deployment as on 1.4.1997.

(e) Aggrieved by the above principle followed by the Commission, the petitioner made an application, being Petition No 26/2005 urging that in respect of all its assets, the depleted equity amounting to Rs. 64600 lakh through the application of the above methodology be restored.

(f) The said application was dismissed vide the Commission's order dated 11.5.2005, whereupon, the petitioner filed Appeal No. 121 of 2005 before the Appellate Tribunal.

(g) The above appeal was disposed of by the Appellate Tribunal vide its judgment dated 16.5.2006 with the following directions:

"CONCLUSION

33. Thus, we have no hesitation in holding that the aforesaid grave error committed by the Central Government as a regulator while determining tariff for the block year 1992-1997, requires to be rectified with effect from April 1, 2004.

34. In the light of the aforesaid discussion, the issues raised in Para 19 are determined and answered as follows:

**ISSUE No.1:** The regulator committed grave error in fixing equity while determining tariff for the block year 1992-1997 and 1997-2002.

**ISSUE No.2:** The appellant is entitled to the restoration of equity of Rs.664 Crore, with effect from April 1, 1992, for the purposes of accounting.

**ISSUE No.3:** Consequent to restoration of equity, tariff needs to be determined for the period commencing from April 1, 2004.

**ISSUE No.4:** The Order of the CERC is liable to be set aside.

**ISSUE No.5:** The CERC shall re-determine the transmission tariff for the period commencing from April 1, 2004.

35. In view of the aforesaid determination, the appeal is allowed. The order of the CERC is set aside and the matter is remitted to it (CERC) for re-determination of the tariff for the period commencing from April 1, 2004 in accordance with law and having regard to the observations made by us.

We make it clear that the appellant shall not be entitled to claim tariff difference from the period anterior to 01.04.2004. “

(h) In pursuance of the above judgment of the Appellate Tribunal, the petitioner filed region-wise applications for revision of tariff for the period 2004-09 after restoration of equity. The project-wise details for revision of equity in respect of the transmission assets in the Northern Region were filed in Petition No. 40/2007.

3. As a consequence of the judgment of the Appellate Tribunal, notional equity as on 1.4.2004 stands revised. This has consequently led to the revision of calculation of return on equity and interest on working capital. Restoration of equity does not have any bearing on any other component of tariff. However, in case of Moga-Hissar-Bhiwani Transmission System, interest on loan and depreciation have also been re-calculated, as clarified in the Note under the head “interest on loan” at Annexure IV. Similarly, interest on loan and depreciation in respect of Salal Stage-I Transmission System have also been re-calculated in Annexure VI, since normative loan considered gets repaid prior to 1.4.2004.

4. Details of the revised calculation of the annual transmission charges in respect of the transmission assets considered in this order are given in Annexures I to VI to this order.

5. The petitioner shall recover the additional amount in six equal monthly installments.

Sd/-

**(R KRISHNAMOORTHY)**  
**MEMBER**  
**New Delhi, dated 22nd January, 2008**

sd/-

**(BHANU BHUSHAN)**  
**MEMBER**

## Annexure- I

1. Petition No. 101/2004
2. Approval of tariff in respect of Bairasuil Transmission System in Northern Region for the period 1.4.2004 to 31.3.2009.
3. Date of order of approval of tariff: 27.2.2006.
4. **Original tariff**
  - (a) Summary of the tariff awarded

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	13.32	13.32	13.32	13.32	13.32
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	26.81	26.81	26.81	26.81	26.81
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	4.43	4.60	4.78	4.96	5.16
O & M Expenses	100.20	104.20	108.48	112.64	117.31
<b>Total</b>	<b>144.75</b>	<b>148.92</b>	<b>153.38</b>	<b>157.73</b>	<b>162.60</b>

- (b) Computation of capital cost

(Rs. in lakh)

Capital cost approved in the order dated 27.2.2006, as on 1.4.2001	632.16
Admitted capital cost as on 1.4.2001 for calculation of debt and equity	382.93
Additional capitalization due to works from 1.4.2001 to 31.3.2004	00.00
Additional capitalization due to FERV from 1.4.2004 to 31.3.2004	00.00
Total capital cost as on 1.4.2004 considered for calculation of return on equity	382.93

- (c) Computation of equity: Rs. 191.47 lakh at the debt-equity ratio of 50:50.

5. **Revised tariff claimed by the petitioner**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	13.32	13.32	13.32	13.32	13.32
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	44.31	44.31	44.31	44.31	44.31
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	4.73	4.90	5.08	5.27	5.47
O & M Expenses	100.20	104.20	108.48	112.64	117.31
<b>Total</b>	<b>162.55</b>	<b>166.73</b>	<b>171.18</b>	<b>175.53</b>	<b>180.40</b>

## 6. Revised tariff computations

### (a) Capital cost

(Rs. in lakh)

Capital cost approved in the order dated 27.2.2006, as on 1.4.2001	632.16
Additional capitalization due to works from 1.4.2001 to 31.3.2004	00.00
Additional capitalization due to FERV from 1.4.2001 to 31.3.2004	00.00
<b>Total capital cost as on 1.4.2004</b>	<b>632.16</b>

### (b) Equity and return on equity:

Equity as per order dated 27.2.2006	Rs. 191.47 lakh
Additions on account of restitution of equity	Rs. 124.61 lakh
<b>Total equity (50% of capital cost)</b>	<b>Rs. 316.08 lakh</b>
Return on equity	Rs. 44.25 lakh per annum

### (c) Interest on working capital

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	10.70	11.35	12.03	12.75	13.51
O & M expenses	8.35	8.68	9.04	9.39	9.78
Receivables	27.08	27.78	28.52	29.25	30.06
<b>Total</b>	<b>46.14</b>	<b>47.81</b>	<b>49.59</b>	<b>51.38</b>	<b>53.35</b>
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
<b>Interest</b>	<b>4.73</b>	<b>4.90</b>	<b>5.08</b>	<b>5.27</b>	<b>5.47</b>

### (d) Revised annual transmission charges

(Rs.in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	13.32	13.32	13.32	13.32	13.32
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	44.25	44.25	44.25	44.25	44.25
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	4.73	4.90	5.08	5.27	5.47
O & M Expenses	100.20	104.20	108.48	112.64	117.31
<b>Total</b>	<b>162.50</b>	<b>166.67</b>	<b>171.13</b>	<b>175.48</b>	<b>180.35</b>



## Annexure- II

1. Petition No. 102/2004
2. Approval of tariff in respect of Singrauli Transmission System in Northern Region for the period 1.4.2004 to 31.3.2009.
3. Date of order of approval of tariff: 30.11.2005
4. **Original tariff**
  - (a) Summary of the tariff awarded

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	346.56	346.56	346.56	346.56	346.56
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	1022.39	1022.39	1022.39	1022.39	1022.39
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	100.19	104.20	108.46	112.86	117.61
O & M Expenses	1102.01	1146.01	1193.18	1238.77	1290.32
<b>Total</b>	<b>2571.15</b>	<b>2619.16</b>	<b>2670.59</b>	<b>2720.58</b>	<b>2776.88</b>

- (b) Computation of capital cost

(Rs. in lakh)

Capital cost approved in the order dated 30.11.2005, as on 1.4.2001	23596.16
Admitted capital cost as on 1.4.2001 for calculation of debt and equity	14605.60
Additional capitalization due to works from 1.4.2001 to 31.3.2004	00.00
Additional capitalization due to FERV from 1.4.2001 to 31.3.2004	0.00
Total capital cost as on 1.4.2004 considered for calculation of return on equity	14605.60

- (c) Computation of equity: Rs. 7302.80 lakh at the debt-equity ratio of 50:50.

5. **Revised tariff claimed by the petitioner**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	346.56	346.56	346.56	346.56	346.56
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	1651.69	1651.69	1651.69	1651.69	1651.69
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	111.13	115.13	119.39	123.80	128.55
O & M Expenses	1102.01	1146.01	1193.18	1238.77	1290.32
<b>Total</b>	<b>3211.39</b>	<b>3259.39</b>	<b>3310.83</b>	<b>3360.82</b>	<b>3417.12</b>

## 6. Revised tariff computations

### (a) Capital cost

(Rs. in lakh)

Capital cost approved in the order dated 30.11.2005, as on 1.4.2001	23596.16
Additional capitalization due to works from 1.4.2001 to 31.3.2004	00.00
Additional capitalization due to FERV from 1.4.2001 to 31.3.2004	0.00
Total capital cost as on 1.4.2004	23596.16

### (b) Equity and return on equity:

Equity as per order dated 30.11.2005	Rs. 7302.80 lakh
Additions on account of restitution of equity	Rs. 4495.28 lakh
Total equity (50% of the capital cost)	Rs. 11798.08 lakh
Return on equity	Rs.1651.73 lakh per annum

### (c) Interest on working capital

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	457.09	484.52	513.59	544.40	577.07
O & M expenses	91.83	95.50	99.43	103.23	107.53
Receivables	535.24	543.24	551.81	560.14	569.53
Total	1,084.16	1,123.26	1,164.83	1,207.78	1,254.12
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
<b>Interest</b>	<b>111.13</b>	<b>115.13</b>	<b>119.40</b>	<b>123.80</b>	<b>128.55</b>

### (d) Revised annual transmission charges

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	346.56	346.56	346.56	346.56	346.56
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	1651.73	1651.73	1651.73	1651.73	1651.73
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	111.13	115.13	119.40	123.80	128.55
O & M Expenses	1102.01	1146.01	1193.18	1238.77	1290.32
Total	<b>3211.43</b>	<b>3259.44</b>	<b>3310.87</b>	<b>3360.86</b>	<b>3417.16</b>

## Annexure-III

1. Petition No. 103/2004
2. Approval of tariff in respect of Salal Stage-II Transmission System in Northern Region for the period 1.4.2004 to 31.3.2009.
3. Date of order of approval of tariff: 9.9.2005
4. **Original tariff**
  - (a) Summary of the tariff awarded

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	196.35	196.35	196.35	196.35	196.35
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	638.45	638.45	638.45	638.45	638.45
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	41.63	43.07	44.60	46.20	47.90
O & M Expenses	353.00	367.13	382.06	396.91	413.19
<b>Total</b>	<b>1229.44</b>	<b>1245.01</b>	<b>1261.47</b>	<b>1277.92</b>	<b>1295.90</b>

- (b) Computation of capital cost

(Rs. in lakh)

Capital cost approved in the order dated 9.9.2005, as on 1.4.2001	10147.77
Admitted capital cost as on 1.4.2001 for calculation of debt and equity	9120.77
Additional capitalization due to works from 1.4.2001 to 31.3.2004	00.00
Additional capitalization due to FERV from 1.4.2001 to 31.3.2004	0.00
Total capital cost as on 1.4.2004 considered for calculation of return on equity	9120.77

- (c) Computation of equity: Rs. 4560.39 lakh at the debt-equity ratio of 50:50.

5. **Revised tariff claimed by the petitioner**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	196.35	196.35	196.35	196.35	196.35
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	710.41	710.41	710.41	710.41	710.41
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	42.88	44.32	45.85	47.45	49.15
O & M Expenses	353.00	367.13	382.06	396.91	413.19
<b>Total</b>	<b>1302.65</b>	<b>1318.22</b>	<b>1334.68</b>	<b>1351.13</b>	<b>1369.11</b>

## 6. Revised tariff computations

### (a) Capital cost

(Rs. in lakh)

Capital cost approved in the order dated 9.9.2005, as on 1.4.2001	10147.77
Additional capitalization due to works from 1.4.2001 to 31.3.2004	00.00
Additional capitalization due to FERV 1.4.2001 to 31.3.2004	0.00
Total capital cost as on 1.4.2004	10147.77

### (b) Equity and return on equity:

Equity as per order dated 9.9.2005	Rs. 4560.39 lakh
Additions on account of restitution of equity	Rs. 513.50 lakh
Total equity (50% of the capital cost)	Rs. 5073.89 lakh
Return on equity	Rs.710.34 lakh per annum

### (c) Interest on working capital

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	171.82	182.13	193.06	204.64	216.92
O & M expenses	29.42	30.59	31.84	33.08	34.43
Receivables	217.10	219.69	222.44	225.18	228.17
Total	418.34	432.42	447.33	462.90	479.53
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
<b>Interest</b>	<b>42.88</b>	<b>44.32</b>	<b>45.85</b>	<b>47.45</b>	<b>49.15</b>

### (d) Revised annual transmission charges

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	196.35	196.35	196.35	196.35	196.35
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	710.34	710.34	710.34	710.34	710.34
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	42.88	44.32	45.85	47.45	49.15
O & M Expenses	353.00	367.13	382.06	396.91	413.19
Total	<b>1302.58</b>	<b>1318.15</b>	<b>1334.61</b>	<b>1351.06</b>	<b>1369.04</b>

## Annexure- IV

1. Petition No. 106/2004
2. Approval of tariff in respect of Moga-Hissar-Bhiwani Transmission System in Northern Region for the period 1.4.2004 to 31.3.2009.
3. Date of order of approval of tariff: 27.3.2006.

### 4. **Original tariff**

(a) Summary of the tariff awarded in respect of Moga-Hissar D/C transmission line along with 220 kV Hissar-Hissar (BBMB) D/C line and 400 kV D/C Hissar-Bhiwani transmission line with associated bays at Hissar and Bhiwani sub-stations

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	354.18	354.18	354.18	354.18	354.18
Interest on Loan	85.28	63.68	42.07	20.47	4.83
Return on Equity	779.40	779.40	779.40	779.40	779.40
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	56.04	57.51	59.08	60.74	62.65
O & M Expenses	474.71	493.73	513.75	533.80	555.60
<b>Total</b>	<b>1749.61</b>	<b>1748.49</b>	<b>1748.48</b>	<b>1748.59</b>	<b>1756.66</b>

(b) Computation of capital cost

(Rs. in lakh)

Capital cost approved in the order dated 27.3.2006, as on 1.4.2001	12550.00
Admitted capital cost as on 1.4.2001 for calculation of debt and equity	11134.32
Additional capitalization due to works from 1.4.2001 to 31.3.2004	00.00
Additional capitalization due to FERV from 1.4.2001 to 31.3.2004	00.00
Total capital cost as on 1.4.2004 considered for calculation of return on equity	11134.32

(c) Computation of equity: Rs. 5567.16 lakh at the debt-equity ratio of 50:50.

### 5. **Revised tariff claimed by the petitioner**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	354.18	354.18	354.18	221.16	221.16
Interest on Loan	42.03	20.43	4.81	0.00	0.00
Return on Equity	878.66	878.66	878.66	878.66	878.66
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	57.01	58.48	60.16	59.80	61.98
O & M Expenses	474.71	493.73	513.75	533.80	555.60
<b>Total</b>	<b>1806.59</b>	<b>1805.47</b>	<b>1811.56</b>	<b>1693.43</b>	<b>1717.40</b>

## 6. Revised tariff computations

### (a) Capital cost

(Rs. in lakh)

Capital cost approved in the order dated 27.3.2006, as on 1.4.2001	12550.00
Additional capitalization due to works from 1.4.2001 to 31.3.2004	00.00
Additional capitalization due to FERV from 1.4.2001 to 31.3.2004	00.00
Total capital cost as on 1.4.2004	12550.00

### (b) Equity and return on equity:

Equity as per order dated 27.3.2006	Rs. 5567.16 lakh
Additions on account of restitution of equity	Rs.707.84 lakh
Total equity (50% of the capital cost)	Rs. 6275.00 lakh
Return on equity	Rs.878.50 lakh per annum

### (c) Interest on loan

Details of loan	Up to 31.3.2004	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on loan						
Gross Loan as on 1.4.2001	6275.00					
Addition due to Additional Capitalisation	0.00					
Addition due to FERV	0.00					
Gross Loan	6275.00	6275.00	6275.00	6275.00	6275.00	6275.00
Cumulative Repayment up to Previous Year		5129.28	5483.46	5837.64	6191.81	6275.00
Net Loan-Opening		1145.72	791.54	437.36	83.19	0.00
Repayment during the year		354.18	354.18	354.18	83.19	0.00
Net Loan-Closing		791.54	437.36	83.19	0.00	0.00
Average Loan		968.63	614.45	260.28	41.59	0.00
Weighted Average Rate of Interest on Loan		6.1000%	6.1000%	6.1000%	6.1000%	6.1000%
<b>Interest</b>		<b>59.09</b>	<b>37.48</b>	<b>15.88</b>	<b>2.54</b>	<b>0.00</b>

Note: While re-calculating interest on loan, outstanding loan as on 1.4.2004 has been re-worked out based on the judgment of the Appellate Tribunal for Electricity, in cases involving National Thermal Power Corporation, wherein the Appellate Tribunal decided to compute interest on loan based on normative repayment. Further, re-financing of GOI loan

with Bond XIV has also been considered. The normative loan gets repaid during 2007-08 and as such for the year 2008-09 and onwards depreciation has been spread over the balance useful life of the asset and allowed accordingly for the year 2008-09.

(d) Interest on working capital

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	215.54	228.48	242.19	256.72	272.12
O & M expenses	39.56	41.14	42.81	44.48	46.30
Receivables	303.96	303.78	303.78	305.19	285.02
Total	559.07	573.40	588.77	606.39	603.44
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
<b>Interest</b>	<b>57.30</b>	<b>58.77</b>	<b>60.35</b>	<b>62.16</b>	<b>61.85</b>

(e) Revised annual transmission charges

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	354.18	354.18	354.18	354.18	214.16
Interest on Loan	59.09	37.48	15.88	2.54	0.00
Return on Equity	878.50	878.50	878.50	878.50	878.50
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	57.30	58.77	60.35	62.16	61.85
O & M Expenses	474.71	493.73	513.75	533.80	555.60
Total	<b>1823.78</b>	<b>1822.66</b>	<b>1822.65</b>	<b>1831.17</b>	<b>1710.11</b>

## Annexure-V

1. Petition No. 108/2004
2. Approval of tariff in respect of Tanakpur Transmission System in Northern Region for the period 1.4.2004 to 31.3.2009.
3. Date of order of approval of tariff: 7.9.2005
4. **Original tariff**
  - (a) Summary of the tariff awarded

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	33.58	33.58	33.58	33.58	33.58
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	111.16	111.16	111.16	111.16	111.16
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	9.47	9.83	10.22	10.62	11.05
O & M Expenses	104.36	108.53	112.99	117.32	122.19
<b>Total</b>	<b>258.58</b>	<b>263.11</b>	<b>267.95</b>	<b>272.68</b>	<b>277.98</b>

- (b) Computation of capital cost

(Rs. in lakh)

Capital cost approved in the order dated 7.9.2005, as on 1.4.2001	2089.06
Admitted capital cost as on 1.4.2001 for calculation of debt and equity	1588.00
Additional capitalization due to works from 1.4.2001 to 31.3.2004	00.00
Additional capitalization due to FERV from 1.4.2001 to 31.3.2004	00.00
Total capital cost as on 1.4.2004 considered for calculation of return on equity	1588.00

- (c) Computation of equity: Rs. 794.00 lakh at the debt-equity ratio of 50:50.

5. **Revised tariff claimed by the petitioner**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	33.58	33.58	33.58	33.58	33.58
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	146.30	146.30	146.30	146.30	146.30
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	10.08	10.44	10.83	11.23	11.66
O & M Expenses	104.36	108.53	112.99	117.32	122.19
<b>Total</b>	<b>294.33</b>	<b>298.86</b>	<b>303.70</b>	<b>308.43</b>	<b>313.73</b>



## 6. Revised tariff computations

### (a) Capital cost

(Rs. in lakh)

Capital cost approved in the order dated 7.9.2005, as on 1.4.2001	2089.00
Additional capitalization due to works from 1.4.2001 to 31.3.2004	00.00
Additional capitalization due to FERV from 1.4.2001 to 31.3.2004	00.00
<b>Total capital cost as on 1.4.2004</b>	<b>2089.00</b>

### (b) Equity and return on equity:

Equity as per order dated 7.9.2005	Rs. 794.00 lakh
Additions on account of restitution of equity	Rs. 250.50 lakh
<b>Total equity (50% of capital cost)</b>	<b>Rs. 1044.50 lakh</b>
Return on equity	Rs. 146.23 lakh per annum

### (c) Interest on working capital

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	40.61	43.04	45.63	48.36	51.26
O & M expenses	8.70	9.04	9.42	9.78	10.18
Receivables	49.04	49.80	50.61	51.39	52.28
<b>Total</b>	<b>98.35</b>	<b>101.88</b>	<b>105.65</b>	<b>109.53</b>	<b>113.72</b>
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
<b>Interest</b>	<b>10.08</b>	<b>10.44</b>	<b>10.83</b>	<b>11.23</b>	<b>11.66</b>

### (d) Revised annual transmission charges

(Rs.in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	33.58	33.58	33.58	33.58	33.58
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	146.23	146.23	146.23	146.23	146.23
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	10.08	10.44	10.83	11.23	11.66
O & M Expenses	104.36	108.53	112.99	117.32	122.19
<b>Total</b>	<b>294.26</b>	<b>298.79</b>	<b>303.63</b>	<b>308.36</b>	<b>313.66</b>

## Annexure-VI

1. Petition No. 110/2004
2. Approval of tariff in respect of Salal Stage-I Transmission System in Northern Region for the period 1.4.2004 to 31.3.2009.
3. Date of order of approval of tariff: 28.11.2005
4. **Original tariff**
  - (a) Summary of the tariff awarded

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	78.56	35.79	35.79	35.79	35.79
Interest on Loan	0.26	0.00	0.00	0.00	0.00
Return on Equity	128.59	128.59	128.59	128.59	128.59
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	20.20	20.25	21.09	21.95	22.87
O & M Expenses	390.65	406.31	422.76	439.30	457.21
<b>Total</b>	<b>618.27</b>	<b>590.94</b>	<b>608.23</b>	<b>625.63</b>	<b>644.46</b>

- (b) Computation of capital cost

(Rs. in lakh)

Capital cost approved in the order dated 28.11.2005, as on 1.4.2001	3057.00
Admitted capital cost as on 1.4.2001 for calculation of debt and equity	1837.00
Additional capitalization due to works from 1.4.2001 to 31.3.2004	00.00
Additional capitalization due to FERV from 1.4.2001 to 31.3.2004	00.00
Total capital cost as on 1.4.2004 considered for calculation of return on equity	1837.00

- (c) Computation of equity: Rs. 918.50 lakh at the debt-equity ratio of 50:50.

5. **Revised tariff claimed by the petitioner**

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	38.31	38.31	38.31	38.31	38.31
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	213.99	213.99	213.99	213.99	213.99
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	20.98	21.78	22.61	23.48	24.40
O & M Expenses	390.65	406.31	422.76	439.30	457.21
<b>Total</b>	<b>663.93</b>	<b>680.38</b>	<b>697.67</b>	<b>715.07</b>	<b>733.91</b>

## 6. Revised tariff computations

### (a) Capital cost

(Rs. in lakh)

Capital cost approved in the order dated 28.11.2005, as on 1.4.2001	3057.00
Additional capitalization due to works from 1.4.2001 to 31.3.2004	00.00
Additional capitalization due to FERV from 1.4.2001 to 31.3.2004	00.00
<b>Total capital cost as on 1.4.2004</b>	<b>3057.00</b>

### (b) Equity and return on equity:

Equity as per order dated 28.11.2005	Rs. 918.50 lakh
Additions on account of restitution of equity	Rs. 610.00 lakh
<b>Total equity (50% of capital cost)</b>	<b>Rs. 1528.50 lakh</b>
Return on equity	Rs. 213.99 lakh per annum

### (c) Interest on working capital

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	61.51	65.20	69.12	73.26	77.66
O & M expenses	32.55	33.86	35.23	36.61	38.10
Receivables	110.65	113.40	116.28	119.18	122.32
<b>Total</b>	<b>204.72</b>	<b>212.46</b>	<b>220.62</b>	<b>229.05</b>	<b>238.08</b>
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
<b>Interest</b>	<b>20.98</b>	<b>21.78</b>	<b>22.61</b>	<b>23.48</b>	<b>24.40</b>

### (d) Revised annual transmission charges

(Rs.in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	38.31	38.31	38.31	38.31	38.31
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	213.99	213.99	213.99	213.99	213.99
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	20.98	21.78	22.61	23.48	24.40
O & M Expenses	390.65	406.31	422.76	439.30	457.21
<b>Total</b>	<b>663.93</b>	<b>680.38</b>	<b>697.67</b>	<b>715.07</b>	<b>733.91</b>