

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

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

Petition No. 6/2002

In the matter of

Approval of tariff for 220 kV Anta Transmission System in Northern Region for the period 1.4.2001 to 31.3.2004.

And in the matter of

Petition No. 8/2002

Approval of tariff in respect of Transmission System associated with Auraiya Gas Power Project in Northern Region for the period 1.4.2001 to 31.3.2004.

And in the matter of

Petition No. 15/2002

Approval of tariff in respect of 400 kV D/C Singrauli-Vindhyachal transmission line along with (2 x 250 MW) HVDC back-to-back station at Vindhyachal in Northern Region and Western Region for the period 1.4.2001 to 31.3.2004

And in the matter of

Petition No. 19/2002

Approval of tariff in respect of Chamera Stage I Transmission System in Northern Region for the period 1.4.2001 to 31.3.2004.

And in the matter of

Petition No. 38/2002

Approval of tariff in respect of Rihand Transmission System, Reactor at Agra in Northern Region for the period 1.4.2001 to 31.3.2004.

And in the matter of

Petition No. 43/2002

Approval of transmission tariff in respect of 800 KV S/C Kishenpur-Moga Transmission Line Ckt-I with associated bays, 420 KV, 63 MVAR Bus Reactor at Kishenpur sub-station with associated bays and 400/220 KV, 250 MVA ICT-III at Moga sub-station with associated bays and 800 KV Kishenpur-Moga Transmission Line Ckt-II with associated bays in Northern Region for the period from 1.4.2001 to 31.3.2004

And in the matter of

Petition No. 50/2002

Approval of tariff in respect of transmission system associated with RAPP-B Project in Northern Region from 1.4.2001 to 31.3.2004.

And in the matter of

Petition No. 54/2002

Approval of tariff in respect of Transmission System associated with Faridabad GBCCPP in Northern Region for the period from 1.4.2001 to 31.3.2004.

And in the matter of

Petition No. 68/2002

Approval of tariff in respect of transmission system associated with Unchahar Thermal Power Station Stage II in Northern Region for the period from 1.4.2001 to 31.3.2004.

And in the matter of

Petition No. 73/2002

Approval of tariff in respect of transmission system associated with Nathpa-Jhakri HE Project in Northern Region for the period from 1.4.2001 to 31.3.2004.

And in the matter of

Power Grid Corporation of India Ltd.,Gurgaon

.... Petitioner

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd, Jaipur
2. Ajmer Vidyut Vitaran Nigam Ltd., Ajmer
3. Jaipur Vidyut Vitaran Nigam Ltd,Jaipur
4. Jodhpur Vidyut Vitaran 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 Department, Govt. of J&K, Srinagar
9. Uttar Pradesh Power Corporation Ltd., Lucknow
10. Delhi Transmission Corporation Ltd, New Delhi
11. Chief Engineer, Chandigarh Administration, Chandigarh
12. Uttranchal Power Corporation Ltd, Dehradun
13. Northern Railway, New Delhi

.....Respondents

ORDER

In these petitions, the petitioner, Power Grid Corporation of India Limited, had sought approval of tariff in respect of its various transmission assets in Northern Region for the period from 1.4.2001 to 31.3.2004, based on the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations 2001 (hereinafter referred to as “the 2001 regulations”). On completion of pleadings and after hearing the parties, final tariff in respect of these assets was awarded by different orders. The details of capital cost, equity considered at the time of award of tariff and the summary of the tariff awarded in each case are given in the annexures I to X attached.

2. Tamil Nadu Electricity Board (TNEB) filed Appeal No. 135/2005 in the Appellate Tribunal for Electricity (the Tribunal) against order dated 30.6.2006 of the Commission in Petition No 40/2002, vide which while fixing transmission tariff in respect of 400 kV D/C Kaiga-Sirsi transmission line along with associated bays for the period 1.4.2001 to 31.3.2004, the methodology similar to that adopted in respect of the Transmission System was followed. TNEB had, *inter alia*, questioned the methodology of bifurcation of FERV into debt and equity for the purpose of tariff determination. This appeal, as also some other linked appeals were disposed of by the Tribunal through a common judgment dated 4.10.2006.

The Tribunal vide its judgment dated 4.10.2006 held as under:

“16. According to Explanation 1 to clause 4.4 (c), the premium raised by the Transmission Utility while issuing share capital and investment of internal resources created out of free reserve of the existing utility, if any, for the funding of the project, shall also be reckoned as paid up capital for the purpose of computing the return on equity subject to fulfillment of certain conditions. Explanation also makes no provision for increasing the equity beyond 50% of the

book value of the transmission system. Once the fixed cost has been agreed to be financed in a certain ratio of debt and equity, the equity can be affected by FERV only if the equity is in foreign exchange. The provision of FERV as a pass through has been kept to ensure that any liability or gain, if any, arising on account of any variation in foreign exchange rates (whether debt or equity) is passed on to the beneficiary. In case there is no FERV liability or gain, as the case may be, there will not be any FERV adjustment. In the instant case the additional liability arising on account of FERV shall have an impact only on the debt liability and not equity capital. In this view of the matter, we hold that FERV adjustment is to be made in respect of debt liability and not in respect of the equity. Accordingly, we hold that the CERC is only to make adjustment in respect of debt liability and not in respect of the equity.

17. In view of the aforesaid discussion, the appeal is partly allowed to the extent indicated above. The Central Electricity Regulatory Commission shall re-calculate the effect of FERV on the debt liability.“

3. The above decision was reiterated by the Tribunal in its Judgment dated 22.12.2006 in Appeal No 161 Of 2006 (M.P. State Electricity Board Vs. Power grid Corporation of India and Others) which related to transmission tariff for Vindhyachal Stage - I Additional Transmission System in Western Region for the period 1.4.2001 to 31.3.2004.

4. The ruling of the Tribunal, involving interpretation of the notification dated 16.12.1997 of Ministry of Power, is considered to be judgment in *rem* and thereby has universal application in all the cases of similar nature. Accordingly, it has been decided to apply the ratio of the judgment in all similar cases and re-calculate the tariff in accordance with the judgment of the Tribunal.

5. In terms of judgment dated 4.10.2006 of the Tribunal in Appeal No 135 of 2005 and other related appeals, addition of notional equity on account of FERV is not to be considered for computation of return on equity. As a consequence, the entire amount of FERV shall form part of loan.

6. The NEEPCO filed Appeal No. 159 of 2005 before the Appellate Tribunal for Electricity which was disposed of vide judgment dated 31.10.2007. The Appellate Tribunal vide the above judgment held, *inter alia*, that interest on loan capital should be determined based on normative debt repayment formula.

7. While calculating interest on loan, refinancing of various loans with the loans carrying cheaper and fixed rate of interest has been considered from the date of refinancing. However, in the tariff orders for the tariff period 2004-09 pertaining to tariff petitions under consideration, it has been mentioned that benefits of refinancing of loans shall be passed on by the petitioner. If the same has already been passed on to the beneficiaries, the same shall be mutually adjusted and collected along with the tariff as approved by the Commission in the instant orders. The petitioner shall also intimate the Commission about final adjustment.

8. .Based on the above decision, the tariff for the period 1.4.2001 to 31.3.2004 has been recalculated. The revised calculations are also incorporated in the annexures attached separately for each petition. It is to be noted that there is no change in the O & M component of the tariff because this was allowed on normative basis for per km line length and per bay. O & M charges already approved therefore, hold good. All other components of tariff have been recalculated.

9. In the light of the forgoing, the revised transmission charges have also been summarized in the annexures.

10. It is brought out that but for revision of debt and equity in line with the Appellate Tribunal's judgments dated 4.10.2006 and 31.10.2007, in all other respects, the methodology considered for re-computation of the transmission charges is the same as originally considered . However, where any loan has been re-financed, such refinanced loan has been considered for computation of interest on loan, since the general principle is that reimbursement of interest on loan cannot be a source of income. The position has been suitably incorporated in the appropriate Annexure, where applicable.

11. The petitioner shall adjust the entire excess amount collected by it against the future bills within six months, from the date of this order.

12. We also make it clear that as the revision of tariff has arisen consequent to the directions of the Tribunal, and not any commission or omission on the part of the petitioner, it will not incur any liability towards payment of interest on the grounds of excess recovery.

13. The revision of tariff allowed is subject to decision of the Hon`ble Supreme Court in the appeals filed by the petitioner against the Tribunal's judgment dated 4.10.2006.

Sd/-
(R KRISHNAMOORTHY)
MEMBRER
New Delhi dated 8th February 2008

sd/-
(BHANU BHUSHAN)
MEMBRER

Annexure-I

1. Petition No. 6/2002
2. Subject: Approval of tariff for 220 kV Anta Transmission System in Northern Region for the period 1.4.2001 to 31.3.2004
3. Date of order of approval of tariff: 31.7.2003
4. **Original tariff**
 - (a) Summary of the tariff awarded

(Rs. in lakh)

Transmission Tariff	2001-02	2002-03	2003-04
Interest on Loan	18.56	8.94	0.00
Interest on Working Capital	35.69	37.65	37.37
Depreciation	170.76	170.76	122.05
Advance against Depreciation	0.00	35.61	0.00
Return on Equity	396.23	396.23	396.23
O & M Expenses	543.12	575.71	610.25
Total	1164.36	1224.90	1165.91

- (b) Computation of capital cost

(Rs. in lakh)

Capital Expenditure up to 31.3.2001 as per previous tariff setting	5759.32
FERV as on 31.3.2001 on account of foreign loan liability due to capitalization	774.86
Capital Expenditure up to 31.3.2001 including FERV	6534.18
Additional Capital Expenditure after 31.3.2001	0.00
Capital Expenditure considered for determination of Tariff	6534.18

- (c) Computation of equity

(Rs. in lakh)

Equity up to 31.3.2001	2089.00
Notional equity arising out of FERV	387.43
Total Equity	2476.43

5. **Revised tariff computations**

- (a) Equity and return on equity

(Rs. in lakh)

	2001-02	2002-03	2003-04
Equity	2089.00	2089.00	2089.00
Return on equity up to 31.3.2001	334.24	334.24	334.24

(b) Interest on notional loan

(Rs. in lakh)

Interest on Loan	2001-02	2002-03	2003-04
Gross Loan –Opening	2863.85	2863.85	2863.85
Cumulative Repayment up to Previous Year	1237.10	1308.21	2863.85
Net Loan-Opening	1626.75	1555.65	0.00
Repayment during the year	71.10	1555.65	0.00
Net Loan-Closing	1555.65	0.00	0.00
Average Loan	1591.20	777.82	0.00
Rate of interest	1.5325%	1.5125%	0.000%
Interest	24.39	11.76	0.00

(c) Depreciation

(Rs. in lakh)

Depreciation		2001-02	2002-03	2003-04
Depreciable value	5880.76			
Balance useful life of the asset	24.00	24.00	23.00	22.00
Remaining Depreciable value		3062.33	2891.57	2652.91
Depreciation		170.76	170.76	120.59

(d) Advance Against Depreciation

(Rs. in lakh)

Advance Against Depreciation	2001-02	2002-03	2003-04
1/12th of Gross Loan(s)	238.65	238.65	238.65
Scheduled Repayment of the Loan(s)	71.10	1555.65	0.00
Minimum of the above	71.10	238.65	0.00
Depreciation during the year	170.76	170.76	120.59
Advance Against Depreciation	0.00	67.89	0.00

(e) Interest on Working Capital

(Rs. in lakh)

Working Capital		2001-02	2002-03	2003-04
Maintenance Spares	67.02	71.04	75.31	79.83
O & M expenses		45.26	47.98	50.85
Receivables		184.52	199.58	183.54
Total		300.82	322.87	314.22
Rate of Interest		11.50%	11.50%	11.50%
Interest		34.59	37.13	36.13

(f) Revised Annual Transmission charges

(Rs. in lakh)

Transmission Tariff	2001-02	2002-03	2003-04
Interest on Loan	24.39	11.76	0.00
Interest on Working Capital	34.59	37.13	36.13
Depreciation	170.76	170.76	120.59
Advance against Depreciation	0.00	67.89	0.00
Return on Equity	334.24	334.24	334.24
O & M Expenses	543.12	575.71	610.25
Total	1107.10	1197.49	1101.21

Annexure-II

1. Petition No. 8/2002
2. Subject: Approval of tariff in respect of Transmission System associated with Auraiya Gas Power Project in Northern Region for the period 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 31.7.2003
4. **Original tariff**
 - (a) Summary of the tariff awarded

(Rs. in lakh)

Transmission Tariff	2001-02	2002-03	2003-04
Interest on Loan	31.53	15.49	0.00
Interest on Working Capital	50.43	52.93	51.54
Depreciation	310.54	310.54	207.84
Advance against Depreciation	0.00	50.91	0.00
Return on Equity	693.97	693.97	693.97
O & M Expenses	527.52	559.17	592.72
Total	1613.99	1683.00	1546.08

- (b) Computation of capital cost

(Rs. in lakh)

Capital Expenditure up to 31.03.2001	10162.86
FERV as on 31.3.2001 on account of foreign loan liability due to capitalization	1291.94
Capital Expenditure up to 31.03.2001	11454.80
Additional Capital Expenditure after 31.03.2001	0.00
Total Capital Expenditure	11454.80

- (c) Computation of equity

(Rs. in lakh)

Equity up to 31.3.2001	3691.36
Notional equity arising out of FERV	645.97
Total Equity	4337.33

5. **Revised tariff computations**

- (a) Equity and return on equity

(Rs. in lakh)

	2001-02	2002-03	2003-04
Equity	3691.36	3691.36	3691.36
Return on equity up to 31.3.2001	590.62	590.62	590.62

(b) Interest on notional loan

(Rs. in lakh)

Interest on Loan	2001-02	2002-03	2003-04
Gross Loan –Opening	4983.30	4983.30	4983.30
Cumulative Repayment up to Previous Year	2284.61	2350.81	4983.30
Net Loan-Opening	2698.69	2632.49	0.00
Repayment during the year	66.20	2632.49	0.00
Net Loan-Closing	2632.49	0.00	0.00
Average Loan	2665.59	1316.25	0.00
Rate of interest	1.5561%	1.5495%	0.0000%
Interest	41.48	20.39	0.00

(c) Depreciation

(Rs. in lakh)

Depreciation		2001-02	2002-03	2003-04
Depreciable value	10309.32			
Balance useful life of the asset	24.00	24.00	23.00	22.00
Remaining Depreciable value		5244.56	4934.02	4518.75
Depreciation		310.54	310.54	205.40

(d) Advance Against Depreciation

(Rs. in lakh)

Advance Against Depreciation	2001-02	2002-03	2003-04
1/12th of Gross Loan(s)	415.27	415.27	415.27
Scheduled Repayment of the Loan(s)	66.20	2632.49	0.00
Minimum of the above	66.20	415.27	0.00
Depreciation during the year	310.54	310.54	205.40
Advance Against Depreciation	0.00	104.74	0.00

(e) Interest on Working Capital

(Rs. in lakh)

Working Capital		2001-02	2002-03	2003-04
Maintenance Spares	118.49	125.60	133.13	141.12
O & M expenses		43.96	46.60	49.39
Receivables		253.13	272.92	239.70
Total		422.68	452.65	430.22
Rate of Interest		11.50%	11.50%	11.50%
Interest		48.61	52.05	49.47

(f) Revised Annual Transmission charges

(Rs. in lakh)

Transmission Tariff	2001-02	2002-03	2003-04
Interest on Loan	41.48	20.39	0.00
Interest on Working Capital	48.61	52.05	49.47
Depreciation	310.54	310.54	205.40
Advance against Depreciation	0.00	104.74	0.00
Return on Equity	590.62	590.62	590.62
O & M Expenses	527.52	559.17	592.72
Total	1518.76	1637.51	1438.21

Annexure-III

1. Petition No. 15/2002
2. Subject: Approval of tariff in respect of 400 kV D/C Singrauli-Vindhyachal transmission line along with (2 x 250 MW) HVDC back-to-back station at Vindhyachal in Northern Region and Western Region for the period 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 17.7.2003
4. **Original tariff**

- (a) Summary of the tariff awarded

(Rs. in lakh)

Transmission Tariff	2001-02	2002-03	2003-04
Interest on Loan	3.49	0.85	0.00
Interest on Working Capital	62.64	64.56	59.48
Depreciation	629.56	629.56	263.11
Advance against Depreciation	0.00	0.00	0.00
Return on Equity	887.39	887.39	887.39
O & M Expenses	301.21	319.29	338.44
Total	1884.29	1901.64	1548.42

- (b) Computation of capital cost

(Rs. in lakh)

Capital Expenditure up to 31.3.2001 as per previous tariff setting	16625.73
FERV as on 31.3.2001 on account of foreign loan liability due to capitalization	959.17
Capital Expenditure up to 31.3.2001	17584.90
Additional Capital Expenditure after 31.3.2001	0.00
Capital Expenditure considered for determination of Tariff	17584.90

- (c) Computation of equity

(Rs. in lakh)

Equity allowed by 31.3.2001	5066.60
Notional equity arising out of FERV.	479.59
Total Equity	5546.19

5. **Revised tariff computations**

- (a) Equity and return on equity

Rs. in lakh)

	2001-02	2002-03	2003-04
Equity	5066.60	5066.60	5066.60
Return on equity up to 31.3.2001	810.66	810.66	810.66

(b) Interest on notional loan

(Rs. in lakh)

Interest on Loan	2001-02	2002-03	2003-04
Gross Loan –Opening	6025.77	6025.77	6025.77
Cumulative Repayment up to Previous Year	5180.58	5370.58	6025.77
Net Loan-Opening	845.19	655.19	0.00
Repayment during the year	190.00	655.19	0.00
Net Loan-Closing	655.19	0.00	0.00
Average Loan	750.19	327.59	0.00
Rate of interest	0.9691%	0.9403%	0.0000%
Interest	7.27	3.08	0.00

(c) Interest on Working Capital

(Rs. In lakh)

Working Capital		2001-02	2002-03	2003-04
Maintenance Spares	193.89	205.52	217.85	230.93
O & M expenses		25.10	26.61	28.20
Receivables		301.65	304.28	245.03
Total		532.28	548.74	504.16
Rate of Interest		11.50%	11.50%	11.50%
Interest		61.21	63.11	57.98

(d) Revised Annual Transmission charges

(Rs. in lakh)

Transmission Tariff	2001-02	2002-03	2003-04
Interest on Loan	7.27	3.08	0.00
Interest on Working Capital	61.21	63.11	57.98
Depreciation	629.56	629.56	263.11
Advance against Depreciation	0.00	0.00	0.00
Return on Equity	810.66	810.66	810.66
O & M Expenses	301.21	319.29	338.44
Total	1809.91	1825.68	1470.19

1. Petition No. 19/2002
2. Subject: Approval of tariff in respect of Chamera Hydro Electric Project Stage I Transmission System in Northern Region for the period 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 31.7.2003
4. **Original tariff**

(a) Summary of the tariff awarded

(Rs. in lakh)

Transmission Tariff	2001-02	2002-03	2003-04
Interest on Loan	335.27	105.29	0.00
Interest on Working Capital	105.20	103.43	95.59
Depreciation	703.38	703.38	490.85
Advance against Depreciation	230.76	230.76	0.00
Return on Equity	1793.56	1793.56	1793.56
O & M Expenses	293.64	311.25	329.93
Total	3461.81	3247.67	2709.93

(b) Computation of capital cost

(Rs. in lakh)

Capital Expenditure up to 31.3.2001	24826.86
FERV as on 31.3.2001 on account of foreign loan liability due to capitalization	499.03
Capital Expenditure up to 31.03.2001	25325.89
Additional Capital Expenditure after 31.03.2001	0.00
Total Capital Expenditure	25325.89

(c) Computation of equity

(Rs. in lakh)

Equity up to 31.3.2001	10960.21
Notional equity arising out of FERV	249.52
Total Equity	11209.72

5. **Revised tariff computations**

(a) Equity and return on equity

(Rs. in lakh)

	2001-02	2002-03	2003-04
Equity	10960.21	10960.21	10960.21
Return on equity up to 31.3.2001	1753.63	1753.63	1753.63

(b) Interest on notional loan

(Rs. in lakh)

Interest on Loan	2001-02	2002-03	2003-04
Gross Loan –Opening	11459.24	11459.24	11459.24
Cumulative Repayment up to Previous Year	5747.27	78822.21	11459.24
Net Loan-Opening	5711.96	72637.02	0.00
Repayment during the year	3074.94	72637.02	0.00
Net Loan-Closing	2637.02	70.00	0.00
Average Loan	4174.49	1318.51	0.00
Interest	350.59	110.10	0.00

(c) Depreciation

(Rs. in lakh)

Depreciation		2001-02	2002-03	2003-04
Depreciable value	22793.30			
Balance useful life of the asset	27.00	27.00	26.00	25.00
Remaining Depreciable value		14139.58	13184.64	12229.70
Depreciation		703.38	703.38	489.19

(d) Advance Against Depreciation

(Rs. in lakh)

Advance Against Depreciation	2001-02	2002-03	2003-04
1/12th of Gross Loan(s)	954.94	954.94	954.94
Scheduled Repayment of the Loan(s)	3074.94	2637.02	0.00
Minimum of the above	954.94	954.94	0.00
Depreciation during the year	703.38	703.38	489.19
Advance Against Depreciation	251.55	251.55	0.00

(e) Interest on Working Capital

(Rs. in lakh)

Working Capital		2001-02	2002-03	2003-04
Maintenance Spares	295.62	313.36	332.16	352.09
O & M expenses		24.47	25.94	27.49
Receivables		576.32	538.84	444.59
Total		914.15	896.94	824.17
Rate of Interest		11.50%	11.50%	11.50%
Interest		105.13	103.15	94.78

(f) Revised Annual Transmission charges

(Rs. in lakh)

Transmission Tariff	2001-02	2002-03	2003-04
Interest on Loan	350.59	110.10	0.00
Interest on Working Capital	105.13	103.15	94.78
Depreciation	703.38	703.38	489.19
Advance against Depreciation	251.55	251.55	0.00
Return on Equity	1753.63	1753.63	1753.63
O & M Expenses	293.64	311.25	329.93
Total	3457.92	3233.07	2667.53

Annexure V

1. Petition No. 38/2002
2. Subject: Approval of tariff in respect of Rihand Transmission System, Reactor at Agra in Northern Region for the period 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff 26.2.2004
4. **Original tariff**

- (a) Summary of the tariff awarded

(Rs. in lakh)

Transmission Tariff	2001-02	2002-03	2003-04
Interest on Loan	929.70	754.10	453.79
Interest on Working Capital	493.53	505.40	515.74
Depreciation	3985.20	3985.20	3985.20
Advance against Depreciation	0.00	0.00	0.00
Return on Equity	7296.70	7296.70	7296.70
O&M Expenses	2586.44	2741.63	2906.13
Total	15291.57	15283.02	15157.55

- (b) Computation of capital cost

(Rs. in lakh)

Capital Expenditure up to 31.3.2001 as per previous tariff setting	124776.00
FERV as on 31.3.2001 on account of foreign loan liability due to capitalization	3781.88
Capital Expenditure up to 31.3.2001	128557.88
Additional Capital Expenditure after 31.3.2001	0.00
Capital Expenditure considered for determination of Tariff	128557.88

- (c) Computation of equity

(Rs. in lakh)

Equity up to 31.3.2001	43713.41
Notional equity arising out of FERV	1890.94
Total Equity	45604.35

5. Revised tariff computations

- (a) Equity and return on equity

(Rs. in lakh)

	2001-02	2002-03	2003-04
Equity	43713.41	43713.41	43713.41
Return on equity up to 31.3.2001	6994.14	6994.14	6994.14

(b) Interest on notional loan

(Rs. in lakh)

Interest on Loan	2001-02	2002-03	2003-04
Gross Loan –Opening	47495.29	47495.29	47495.29
Cumulative Repayment up to Previous Year	32890.95	35236.27	37869.97
Net Loan-Opening	14604.34	12259.02	9625.32
Repayment during the year	2345.32	2633.69	2184.17
Net Loan-Closing	12259.02	9625.32	7441.15
Average Loan	13431.68	10942.17	8533.24
Rate of interest	8.1122%	8.5687%	7.2877%
Interest	1089.61	937.60	621.88

(c) Interest on Working Capital

(Rs. In lakh)

Working Capital		2001-02	2002-03	2003-04
Maintenance Spares	1441.01	1527.47	1619.11	1716.26
O & M expenses		215.54	228.47	242.18
Receivables		2524.36	2526.94	2503.41
Total		4,267.36	4374.52	4,461.85
Rate of Interest		11.50%	11.50%	11.50%
Interest		490.75	503.07	513.11

(d) Revised Annual Transmission Charges

(Rs. in lakh)

Transmission Tariff	2001-02	2002-03	2003-04
Interest on Loan	1089.61	937.60	621.88
Interest on Working Capital	490.75	503.07	513.11
Depreciation	3985.20	3985.20	3985.20
Advance against Depreciation	0.00	0.00	0.00
Return on Equity	6994.14	6994.14	6994.14
O & M Expenses	2586.44	2741.63	2906.13
Total	15146.14	15161.65	15020.46

Annexure- VI

1. Petition No. 43/2002
2. Subject: Approval of tariff in respect of 800 KV S/C Kishenpur-Moga Transmission Line Ckt-I with associated bays, 420 KV, 63 MVAR Bus Reactor at Kishenpur sub-station with associated bays and 400/220 KV, 250 MVA ICT-III at Moga sub-station with associated bays and 800 KV Kishenpur-Moga Transmission Line Ckt-II with associated bays in Northern Region for the period from 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 18.5.2004

4. Original tariff

(a) Summary of the tariff awarded

(Rs. in lakh)

	800 kV Kishenpur-Moga transmission line Ckt.-I along with associated bays			800 kV Kishenpur-Moga transmission line Ckt.-II along with associated bays			250 kV 63 MVAR Bus Reactor at Kishenpur Sub-Station with associated bays 420/220 kV, 250 MVAR ICT III at Moga Sub-Station with associated bays		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
Interest on Loan	5019.22	4487.42	4150.61	4185.40	3975.61	3870.51	178.82	163.09	156.89
Interest on Working Capital	233.98	201.02	209.47	198.81	175.86	198.39	9.11	7.79	8.48
Depreciation	1166.37	1166.37	1166.37	988.89	988.89	988.89	57.55	57.55	57.55
Advance against Depreciation	2078.50	744.74	1324.57	1123.42	0.00	1090.47	60.45	0.00	32.96
Return on Equity	730.81	730.81	730.81	1238.15	1238.15	1238.15	29.20	29.20	29.20
O & M Expenses	167.13	177.15	187.78	173.14	183.53	194.54	26.04	27.61	29.26
Total	9396.01	7507.51	7769.62	7907.81	6562.03	7580.94	361.18	285.23	314.34

(b) Computation of capital cost

(Rs. in lakh)

Name of the Element	Capital Expenditure up to 31.3.2001	FERV as on 31.3.2001 on account of foreign loan liability due to capitalization	Capital Expenditure up to 31.3.2001	Additional Capital Expenditure	Capital Expenditure
800 kV Kishenpur-Moga transmission line Ckt.-I along with associated bays	43052.67	453.33	43506.00	0.00	43506.00
800 kV Kishenpur-Moga transmission line Ckt.-II along with associated bays	39251.19	5.73	39256.92	0.00	39256.92
250 kV 63 MVAR Bus Reactor at Kishenpur Sub-Station with associated bays	1583.28@	15.21	1598.49	0.00	1598.49
420/220 kV, 250 MVAR ICT III at Moga Sub-Station with associated bays					

(c) Computation of equity

(Rs. in lakh)

	Equity allowed in previous tariff setting	Notional Equity on account of FERV	Total Equity
800 kV Kishenpur-Moga transmission line Ckt.-I along with associated bays	4519.97	47.59	4567.56
800 kV Kishenpur-Moga transmission line Ckt.-II along with associated bays	7737.28	1.13	7738.41
250 kV 63 MVAR Bus Reactor at Kishenpur Sub-Station with associated bays	79.02	1.74	182.53
420/220 kV, 250 MVAR ICT III at Moga Sub-Station with associated bays	101.77		

5. Revised tariff computations

(a) Equity and return on equity

(Rs. in lakh)

	800 kV Kishenpur-Moga transmission line Ckt.-I along with associated bays			800 kV Kishenpur-Moga transmission line Ckt.-II along with associated bays			250 kV 63 MVAR Bus Reactor at Kishenpur Sub-Station with associated bays 420/220 kV, 250 MVAR ICT III at Moga Sub-Station with associated bays		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
Equity	4519.97	4519.97	4519.97	7737.28	7737.28	7737.28	180.79	180.79	180.79
Return on Equity	723.20	723.20	723.20	1237.96	1237.96	1237.96	28.93	28.93	28.93

(b) Interest on notional loan

(Rs in lakh)

	800 kV Kishenpur-Moga transmission line Ckt.-I along with associated bays			800 kV Kishenpur-Moga transmission line Ckt.-II along with associated bays			250 kV 63 MVAR Bus Reactor at Kishenpur Sub-Station with associated bays 420/220 kV, 250 MVAR ICT III at Moga Sub-Station with associated bays		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
Gross Loan - Opening	38986.03	38986.03	38986.03	31519.64	31519.64	31519.64	1417.69	1417.69	1417.69
Cumulative Repayment up to previous year	201.62	4719.80	6630.91	8.25	2120.56	2351.41	40.78	184.44	209.29
Net Loan-Opening	38784.41	34266.23	32355.12	31511.39	29399.08	29168.22	1376.91	1233.25	1208.39
Repayment during the year	4518.18	1911.11	628.03	2112.31	230.86	917.09	143.66	24.85	22.07
Net Loan-Closing	34266.23	32355.12	31727.09	29399.08	29168.22	28251.14	1233.25	1208.39	1186.32
Interest	5022.22	4477.84	2760.38	4185.47	3967.97	2706.51	178.93	162.76	103.33

(c) Advance Against Depreciation

(Rs. in lakh)

	800 kV Kishenpur-Moga transmission line Ckt.-I along with associated bays			800 kV Kishenpur-Moga transmission line Ckt.-II along with associated bays			250 kV 63 MVAR Bus Reactor at Kishenpur Sub-Station with associated bays 420/220 kV, 250 MVAR ICT III at Moga Sub-Station with associated bays		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
1/12th of Gross Loan(s)	3248.84	3248.84	3248.84	2626.64	2626.64	2626.64	118.14	118.14	118.14
Scheduled Repayment of the Loan(s)	4518.18	1911.11	628.03	2112.31	230.86	917.09	143.66	24.85	22.07
Minimum of the above	3248.84	1911.11	628.03	2112.31	230.86	917.09	118.14	24.85	22.07
Depreciation during the year	1166.37	1166.37	1166.37	988.89	988.89	988.89	57.55	57.55	57.55
Advance Against Depreciation	2082.47	744.74	0.00	1123.42	0.00	0.00	60.59	0.00	0.00

(d) Interest on Working Capital

(Rs. in lakh)

	800 kV Kishenpur-Moga transmission line Ckt.-I along with associated bays			800 kV Kishenpur-Moga transmission line Ckt.-II along with associated bays			250 kV 63 MVAR Bus Reactor at Kishenpur Sub-Station with associated bays 420/220 kV, 250 MVAR ICT III at Moga Sub-Station with associated bays		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
Maintenance Spares	454.71	481.99	510.91	396.42	420.21	445.42	16.86	17.88	18.95
O & M expenses	13.93	14.76	15.65	14.43	15.29	16.21	2.17	2.30	2.44
Receivables	1565.89	1248.33	832.33	1317.95	1092.34	880.37	60.19	47.44	37.64
Total working capital	2,034.53	1,745.08	1,358.89	1,728.80	1,527.85	1,342.01	79.23	67.61	59.03
Rate of Interest	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%
Interest on working capital	233.97	200.68	156.27	198.81	175.70	154.33	9.11	7.78	6.79

(e) Revised Annual Transmission Charges

(Rs. in lakh)

	800 kV Kishenpur-Moga transmission line Ckt.-I along with associated bays			800 kV Kishenpur-Moga transmission line Ckt.-II along with associated bays			250 kV 63 MVAR Bus Reactor at Kishenpur Sub-Station with associated bays 420/220 kV, 250 MVAR ICT III at Moga Sub-Station with associated bays		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
Interest on Loan	5022.22	4477.84	2760.38	4185.47	3967.97	2706.51	178.93	162.76	103.33
Interest on Working Capital	233.97	200.68	156.27	198.81	175.70	154.33	9.11	7.78	6.79
Depreciation	1166.37	1166.37	1166.37	988.89	988.89	988.89	57.55	57.55	57.55
Advance against Depreciation	2082.47	744.74	0.00	1123.42	0.00	0.00	60.59	0.00	0.00
Return on Equity	723.20	723.20	723.20	1237.96	1237.96	1237.96	28.93	28.93	28.93
O & M Expenses	167.13	177.15	187.78	173.14	183.53	194.54	26.04	27.61	29.26
Total	9395.35	7489.98	4994.00	7907.70	6554.06	5282.24	361.15	284.61	225.86

Annexure-VII

1. Petition No. 50/2002
2. Subject: Approval of tariff in respect of transmission system associated with RAPP-B Project in Northern Region from 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 18.5.2004
4. **Original tariff**

(a) Summary of the tariff awarded

(Rs. in lakh)

	220 kV S/C RAPP B-Udaipur line with associated bays at Udaipur end and 220 kV D/C LILO of RAPP A-Kota line at RAPP-B including PLCC system			220 KV S/C RAPP B-Anta Transmission line with associated bays at Anta end		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
Interest on Loan	435.97	198.94	185.92	179.00	114.28	108.10
Interest on Working Capital	26.29	17.83	19.89	12.08	9.47	10.20
Depreciation	125.54	125.54	125.54	60.62	60.62	60.62
Advance against Depreciation	225.90	0.00	87.29	81.98	0.00	29.18
Return on Equity	65.16	65.16	65.16	75.18	75.18	75.18
O & M Expenses	131.01	138.87	147.20	57.59	61.05	64.71
Total	1009.87	546.34	631.00	466.45	320.60	347.99

(b) Computation of capital cost

(Rs. in lakh)

	220 kV S/C RAPP B-Udaipur line with associated bays at Udaipur end and 220 kV D/C LILO of RAPP A-Kota line at RAPP-B including PLCC system	220 KV S/C RAPP B-Anta Transmission line with associated bays at Anta end
Capital Expenditure up to 31.03.2001	4603.40	2174.46
FERV as on 31.3.2001 on account of foreign loan liability due to capitalization	21.10	6.59
Additional Capital Expenditure after 31.3.2001	0	0
Capital Expenditure considered for determination of Tariff	4624.50	2181.05

(c) Computation of equity

(Rs. in lakh)

	220 kV S/C RAPP B-Udaipur line with associated bays at Udaipur end and 220 kV D/C LILO of RAPP A-Kota line at RAPP-B including PLCC system	220 KV S/C RAPP B-Anta Transmission line with associated bays at Anta end
Equity allowed up to 31.3.2001	405.40	468.46
Notional equity arising out of FERV	1.86	1.42
Total Equity	407.26	469.88

5. Revised tariff computations

(a) Equity and return on equity

(Rs. in lakh)

	220 kV S/C RAPP B-Udaipur line with associated bays at Udaipur end and 220 kV D/C LILO of RAPP A-Kota line at RAPP-B including PLCC system			220 KV S/C RAPP B-Anta Transmission line with associated bays at Anta end		
	2001-2002	2002-2003	2001-2002	2002-2003	2001-2002	2002-2003
Equity	405.40	405.40	405.40	468.46	468.46	468.46
Return on Equity	64.86	64.86	64.86	74.95	74.95	74.95

(b) Interest on notional loan

(Rs. in lakh)

	220 kV S/C RAPP B-Udaipur line with associated bays at Udaipur end and 220 kV D/C LILO of RAPP A-Kota line at RAPP-B including PLCC system			220 KV S/C RAPP B-Anta Transmission line with associated bays at Anta end		
Interest on Loan	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
Gross Loan –Opening	4219.10	4219.10	4219.10	1712.59	1712.59	1712.59
Cumulative Repayment up to Previous Year	0.00	2385.00	2402.10	0.00	651.00	655.70
Net Loan-Opening	4219.10	1834.10	1817.00	1712.59	1061.59	1056.89
Repayment during the year	2385.00	17.10	212.83	651.00	4.70	89.80
Net Loan-Closing	1834.10	1817.00	1604.16	1061.59	1056.89	967.09
Interest	436.09	194.91	177.55	179.09	113.22	105.85

(c) Advance Against Depreciation

(Rs. in lakh)

	220 kV S/C RAPP B-Udaipur line with associated bays at Udaipur end and 220 kV D/C LILO of RAPP A-Kota line at RAPP-B including PLCC system			220 KV S/C RAPP B-Anta Transmission line with associated bays at Anta end		
	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
1/12th of Gross Loan(s)	351.59	351.59	351.59	142.72	142.72	142.72
Scheduled Repayment of the Loan(s)	2385.00	17.10	212.83	651.00	4.70	89.80
Minimum of the above	351.59	17.10	212.83	142.72	4.70	89.80
Depreciation during the year	125.54	125.54	125.54	60.62	60.62	60.62
Advance against Depreciation	226.05	0.00	87.29	82.10	0.00	29.18

(d) Interest on Working Capital

(Rs. in lakh)

		220 kV S/C RAPP B-Udaipur line with associated bays at Udaipur end and 220 kV D/C LILO of RAPP A-Kota line at RAPP-B including PLCC system			220 KV S/C RAPP B-Anta Transmission line with associated bays at Anta end			
		2001-02	2002-03	2003-04		2001-02	2002-03	2003-04
Maintenance Spares	46.61	49.41	52.37	55.52	21.65	22.51	23.86	25.29
O & M expenses		10.92	11.57	12.27		4.80	5.09	5.39
Receivables		168.31	90.32	103.69		77.74	53.22	57.58
Total		228.63	154.27	171.48		105.05	82.17	88.26
Rate of Interest		11.50%	11.50%	11.50%		11.50%	11.50%	11.50%
Interest		26.29	17.74	19.72		12.08	9.45	10.15

(e) Revised Annual Transmission Charges

(Rs. in lakh)

	220 kV S/C RAPP B-Udaipur line with associated bays at Udaipur end and 220 kV D/C LILO of RAPP A-Kota line at RAPP-B including PLCC system			220 KV S/C RAPP B-Anta Transmission line with associated bays at Anta end		
	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
Interest on Loan	436.09	194.91	177.55	179.09	113.22	105.85
Interest on Working Capital	26.29	17.74	19.72	12.08	9.45	10.15
Depreciation	125.54	125.54	125.54	60.62	60.62	60.62
Advance against Depreciation	226.05	0.00	87.29	82.10	0.00	29.18
Return on Equity	64.86	64.86	64.86	74.95	74.95	74.95
O & M Expenses	131.01	138.87	147.20	57.59	61.05	64.71
Total	1009.84	541.93	622.17	466.43	319.30	345.47

Annexure VIII

1. Petition No. 54/2002
2. Subject: Approval of tariff in respect of Transmission System associated with Faridabad GBCCPP in Northern Region for the period from 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 15.10.2003
4. **Original tariff**
 - (a) Summary of the tariff awarded in respect of 220 KV D/C Faridabad-Palla Transmission line

(Rs. in lakh)

Transmission Tariff	2001-2002	2002-2003	2003-2004
Interest on Loan	79.58	73.88	69.47
Interest on Working Capital	11.13	11.31	11.68
Depreciation	56.04	56.04	56.04
Advance against Depreciation	0.00	0.00	7.76
Return on Equity	188.84	188.84	188.84
O & M Expenses	81.19	86.06	91.22
Total	416.78	416.13	425.01

- (b) Computation of capital cost

(Rs. in lakh)

Capital Expenditure up to 31.3.2001	1931.66
FERV as on 31.3.2001 on account of foreign loan liability due to capitalization	14.20
Capital Expenditure up to 31.03.2001	1945.86
Additional Capital Expenditure after 31.03.2001	0.00
Total Capital Expenditure	1945.86

- (c) Computation of equity

(Rs. in lakh)

Equity up to 31.3.2001	1171.66
Notional equity arising out of FERV	8.61
Total Equity	1180.27

5. Revised tariff computations

(a) Equity and return on equity

(Rs. in lakh)

	2001-02	2002-03	2003-04
Equity	1171.66	1171.66	1171.66
Return on equity up to 31.3.2001	187.47	187.47	187.47

(b) Interest on notional loan

(Rs. in lakh)

Interest on Loan	2001-02	2002-03	2003-04
Gross Loan –Opening	774.20	774.20	774.20
Cumulative Repayment up to Previous Year	0.00	0.00	13.40
Net Loan-Opening	774.20	774.20	760.80
Repayment during the year	0.00	13.40	78.55
Net Loan-Closing	774.20	760.80	682.25
Interest	80.12	73.81	68.75

(c) Advance Against Depreciation

(Rs. in lakh)

Advance Against Depreciation	2001-02	2002-03	2003-04
1/12th of Gross Loan(s)	64.52	64.52	64.52
Scheduled Repayment of the Loan(s)	0.00	13.40	78.55
Minimum of the above	0.00	13.40	64.52
Depreciation during the year	56.04	56.04	56.04
Advance Against Depreciation	0.00	0.00	8.48

(d) Interest on Working Capital

(Rs. in lakh)

Working Capital		2001-02	2002-03	2003-04
Maintenance Spares	19.46	20.57	21.81	23.12
O & M expenses		6.77	7.17	7.60
Receivables		69.32	69.11	70.60
Total		96.66	98.09	101.32
Rate of Interest		11.50%	11.50%	11.50%
Interest		11.12	11.28	11.65

(e) Revised Annual Transmission charges

(Rs. in lakh)

Transmission Tariff	2001-02	2002-03	2003-04
Interest on Loan	80.12	73.81	68.75
Interest on Working Capital	11.12	11.28	11.65
Depreciation	56.04	56.04	56.04
Advance against Depreciation	0.00	0.00	8.48
Return on Equity	187.47	187.47	187.47
O & M Expenses	81.19	86.06	91.22
Total	415.93	414.65	423.61

Annexure IX

1. Petition No. 68/2002
2. Subject: Approval of tariff in respect of transmission system associated with Unchahar Thermal Power Station Stage II in Northern Region for the period from 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 27.5.2004.
4. **Original tariff**

(a) Summary of the tariff awarded

(Rs. in lakh)

	220 kV D/C Unchahar-Kanpur Transmission Line I with associated bays			220 kV D/C Unchahar-Kanpur Transmission Line II with associated bays			LILO of one circuit of 220 kV D/C Panki-Mainpuri Transmission Line		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
Interest on Loan	465.47	447.75	420.75	414.19	397.84	374.22	38.21	36.42	34.44
Interest on Working Capital	26.35	27.28	31.13	23.70	24.54	27.59	3.32	3.43	3.55
Depreciation	165.54	165.54	165.54	143.82	143.82	143.82	19.79	19.79	19.79
Advance against Depreciation	15.03	40.42	222.49	28.87	51.73	192.48	2.08	4.34	6.78
Return on Equity	42.73	42.73	42.73	14.44	14.44	14.44	23.54	23.54	23.54
O & M Expenses	199.17	211.13	223.79	200.18	212.19	224.92	31.37	33.25	35.25
Total	914.30	934.85	1106.42	825.20	844.56	977.48	118.31	120.76	123.34

(b) Computation of capital cost

(Rs. in lakh)

Name of the Element	Capital Expenditure up to 31.3.2001	FERV as on 31.3.2001 on account of foreign loan liability due to capitalization	Capital Expenditure up to 31.3.2001	Additional Capital Expenditure	Capital Expenditure As on 31.3.2001 including FERV & additional capitalisation
220 kV D/C Unchahar-Kanpur Transmission Line I with associated bays	5431.52	336.08	5767.60	0.00	5767.60
220 kV D/C Unchahar-Kanpur Transmission Line II with associated bays	4839.62	263.28	5102.90	0.00	5102.90
LILLO of one circuit of 220 kV D/C Panki-Mainpuri Transmission Line	664.10	(-) 2.81	661.29	0.00	661.29

(c) Computation of equity

(Rs. in lakh)

	Equity allowed in previous tariff setting	Notional Equity on account of FERV	Total Equity
220 kV D/C Unchahar-Kanpur Transmission Line I with associated bays	251.52	15.56	267.08
220 kV D/C Unchahar-Kanpur Transmission Line II with associated bays	85.62	4.66	90.28
LILO of one circuit of 220 kV D/C Panki-Mainpuri Transmission Line	147.73	(-)0.62	147.11

5. Revised tariff computations

(a) Equity and return on equity

(Rs. in lakh)

	220 kV D/C Unchahar-Kanpur Transmission Line I with associated bays			220 kV D/C Unchahar-Kanpur Transmission Line II with associated bays			LILO of one circuit of 220 kV D/C Panki-Mainpuri Transmission Line		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
Equity	251.52	251.52	251.52	85.62	85.62	85.62	147.73	147.73	147.73
Return on Equity	40.24	40.24	40.24	13.70	13.70	13.70	23.64	23.64	23.64

(b) Interest on notional loan

(Rs in lakh)

	220 kV D/C Unchahar-Kanpur Transmission Line I with associated bays			220 kV D/C Unchahar-Kanpur Transmission Line II with associated bays			LILO of one circuit of 220 kV D/C Panki-Mainpuri Transmission Line		
	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
Gross Loan - Opening	5516.08	5516.08	5516.08	5017.28	5017.28	5017.28	513.56	513.56	513.56
Cumulative Repayment up to previous year	108.16	289.40	496.10	104.79	277.68	473.45	7.30	29.15	53.24
Net Loan-Opening	5407.92	5226.68	5019.97	4912.49	4739.60	4543.83	506.26	484.42	460.32
Repayment during the year	181.24	206.70	388.84	172.89	195.77	336.55	21.85	24.10	26.53
Net Loan-Closing	5226.68	5019.97	4631.13	4739.60	4543.83	4207.28	484.42	460.32	433.79
Interest	466.64	444.71	413.29	414.54	395.06	368.18	38.16	36.37	34.40

(c) Depreciation

(Rs. in lakh)

	220 kV D/C Unchahar-Kanpur Transmission Line I with associated bays			220 kV D/C Unchahar-Kanpur Transmission Line II with associated bays			LILO of one circuit of 220 kV D/C Panki-Mainpuri Transmission Line		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
Rate of Depreciation	2.87%			2.82%			2.99%		
Depreciable Value	5190.84			4592.61			595.16		
Remaining Depreciable Value	4595.71	4414.97	4207.76	4236.67	4063.78	3868.01	581.69	559.82	535.69
Depreciation	165.54	165.54	165.54	143.82	143.82	143.82	19.79	19.79	19.79

(d) Advance Against Depreciation

(Rs. in lakh)

	220 kV D/C Unchahar-Kanpur Transmission Line I with associated bays			220 kV D/C Unchahar-Kanpur Transmission Line II with associated bays			LILO of one circuit of 220 kV D/C Panki-Mainpuri Transmission Line		
	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
1/12th of Gross Loan(s)	459.67	459.67	459.67	418.11	418.11	418.11	42.80	42.80	42.80
Scheduled Repayment of the Loan(s)	181.24	206.70	388.84	172.89	195.77	336.55	21.85	24.10	26.53
Minimum of the above	181.24	206.70	388.84	172.89	195.77	336.55	21.85	24.10	26.53
Depreciation during the year	165.54	165.54	165.54	143.82	143.82	143.82	19.79	19.79	19.79
Advance Against Depreciation	15.70	41.16	223.30	29.07	51.95	192.73	2.06	4.31	6.74

(e) Revised calculations of interest on working capital

(Rs. in lakh)

	220 kV D/C Unchahar-Kanpur Transmission Line I with associated bays			220 kV D/C Unchahar-Kanpur Transmission Line II with associated bays			LILO of one circuit of 220 kV D/C Panki-Mainpuri Transmission Line		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
Maintenance Spares	60.17	63.78	67.60	51.86	54.97	58.27	6.54	6.93	7.34
O & M expenses	16.60	17.59	18.65	16.68	17.68	18.74	2.61	2.77	2.94
Receivables	152.27	154.99	182.85	137.50	140.20	161.80	19.72	20.13	20.56
Total working capital	229.04	236.37	269.11	206.04	212.86	238.82	28.87	29.83	30.84
Rate of Interest	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%
Interest on working capital	26.34	27.18	30.95	23.69	24.48	27.46	3.32	3.43	3.55

(f) Revised Annual Transmission Charges

(Rs. in lakh)

	220 kV D/C Unchahar-Kanpur Transmission Line I with associated bays			220 kV D/C Unchahar-Kanpur Transmission Line II with associated bays			LILO of one circuit of 220 kV D/C Panki-Mainpuri Transmission Line		
	2001- 2002	2002- 2003	2003- 2004	2001- 2002	2002- 2003	2003- 2004	2001- 2002	2002- 2003	2003- 2004
Interest on Loan	466.64	444.71	413.29	414.54	395.06	368.18	38.16	36.37	34.40
Interest on Working Capital	26.34	27.18	30.95	23.69	24.48	27.46	3.32	3.43	3.55
Depreciation	165.54	165.54	165.54	143.82	143.82	143.82	19.79	19.79	19.79
Advance against Depreciation	15.70	41.16	223.30	29.07	51.95	192.73	2.06	4.31	6.74
Return on Equity	40.24	40.24	40.24	13.70	13.70	13.70	23.64	23.64	23.64
O & M Expenses	199.17	211.13	223.79	200.18	212.19	224.92	31.37	33.25	35.25
Total	913.64	929.96	1097.11	825.00	841.20	970.81	118.34	120.79	123.37

Annexure X

1. Petition No. 73/2002
2. Subject: Approval of tariff in respect of 400 kV Nathpa-Jhakri Transmission System in Northern Region for the period from 1.4.2001 to 31.3.2004.
3. Date of order of approval of tariff: 30.8.2004.
4. **Original tariff**

(a) Summary of the tariff awarded

(Rs. in lakh)

Name of the asset	Year	Interest on Loan	Interest on Working Capital	Depreciation	Advance against Depreciation	Return on Equity	O & M Charges	Total
400 kV D/C Abdullapur-Bawana transmission line with associated bays,315 MVA ICT-II at Abdullapur sub-station,220 kV Jorian (HVPNL) bay at Abdullapur sub-station and 400 kV D/C Nalagarh Hissar transmission line with associated bays	2001-02	5528.06	273.12	1332.03	2196.33	1100.08	543.36	10972.98
	2002-03	4935.08	242.21	1332.03	978.73	1100.08	575.97	9164.09
	2003-04	3657.36	234.58	1332.03	1622.67	1100.08	610.52	8557.25
ICT-I at Nalagarh	2001-02	113.41	6.14	53.21	0.00	36.90	13.02	222.68
	2002-03	109.35	6.19	53.21	0.00	36.90	13.80	219.45
	2003-04	99.99	6.14	53.21	0.00	36.90	14.63	210.88
ICT-II at Nalagarh	2001-02	105.04	3.81	47.39	0.00	23.22	13.02	192.48
	2002-03	99.87	3.74	47.39	0.00	23.22	13.80	188.02
	2003-04	88.21	3.53	47.39	0.00	23.22	14.63	176.98
Bus Reactor with associated bays at Nalagarh	2001-02	43.75	2.42	22.19	0.00	11.58	13.02	92.96
	2002-03	41.99	2.44	22.19	0.00	11.58	13.80	92.00
	2003-04	37.88	2.42	22.19	0.00	11.58	14.63	88.70
220 kV D/C Jalandhar-Dasuya transmission line along with associated bays at Jalandhar & Dasuya	2001-02	130.71	9.26	42.13	0.00	51.20	103.05	336.36
	2002-03	128.92	9.52	42.13	0.00	51.20	109.24	341.01
	2003-04	119.65	10.69	42.13	53.37	51.20	115.79	392.84
400/220 kV ICT-I and LILO of Chamera-Moga transmission line along with associated bays at Jalandhar	2001-02	508.85	26.60	215.44	0.00	225.48	83.46	1059.83
	2002-03	507.62	27.06	215.44	0.00	225.48	88.47	1064.06
	2003-04	487.05	28.39	215.44	62.43	225.48	93.78	1112.55

(b) Computation of capital cost

(Rs. in lakh)

Name of the asset	Capital expenditure up to 31.3.2001	FERV as on 31.3.2001 on account of foreign loan liability due to capitalization	Capital Expenditure up to 31.3.2001	Additional Capital Expenditure	Capital Expenditure
400 kV D/C Abdullapur-Bawana transmission line with associated bays, 315 MVA ICT-II at Abdullapur sub-station, 220 kV Jorian (HVPNL) bay at Abdullapur sub-station	20201.02			0.00	
400 kV D/C Nalagarh Hissar transmission line with associated bays	28627.99	386.76	49215.77	0.00	49215.77
ICT-I at Nalagarh	1467.04	11.14	1478.18	0.00	1478.18
ICT-II at Nalagarh	1268.98	47.34	1316.32	0.00	1316.32
Bus Reactor with associated bays at Nalagarh	589.27	27.15	616.42	0.00	616.42
220kVD/C Jalandhar-Dasuya transmission line along with associated bays at Jalandhar & Dasuya	1528.17	(-) 0.75	1527.42	0.00	1527.42
LILO of Chamera-Moga transmission line along with associated bays at Jalandhar	1206.31			0.00	
400/220kV ICT-I and associated bays at Jalandhar	5437.20	(-) 6.08	6637.43	0.00	6637.43

(c) Computation of equity

(Rs. in lakh)

Name of the asset	Equity allowed in previous tariff setting	Notional Equity on account of FERV	Total Equity	Return on Equity Each year @ 16%
400 kV D/C Abdullapur-Bawana transmission line with associated bays, 315 MVA ICT-II at Abdullapur sub-station, 220 kV Jorian (HVPNL) bay at Abdullapur sub-station and 400 kV D/C Nalagarh Hissar transmission line with associated bays	6821.44	54.03	6875.47	1100.08
ICT-I at Nalagarh	228.88	1.74	230.62	36.90
ICT-II at Nalagarh	139.91	5.22	145.13	23.22
Bus Reactor with associated bays at Nalagarh	69.17	3.19	72.36	11.58
220 kV D/C Jalandhar-Dasuya transmission line along with associated bays at Jalandhar & Dasuya	320.17	(-) 0.16	320.01	51.20
400/220 kV ICT-I and LILO of Chamera-Moga transmission line along with associated bays at Jalandhar	1410.51	(-)1.29	1409.22	225.48

5. Revised tariff computations

(a) Equity and return on equity

Name of the asset	Year	Equity	Return on equity
400 kV D/C Abdullapur-Bawana transmission line with associated bays, 315 MVA ICT-II at Abdullapur sub-station, 220 kV Jorian (HVPNL) bay at Abdullapur sub-station and 400 kV D/C Nalagarh Hissar transmission line with associated bays	2001-02	6821.44	1091.43
	2002-03	6821.44	1091.43
	2003-04	6821.44	1091.43
ICT-I at Nalagarh	2001-02	228.88	36.62
	2002-03	228.88	36.62
	2003-04	228.88	36.62
ICT-II at Nalagarh	2001-02	139.91	22.39
	2002-03	139.91	22.39
	2003-04	139.91	22.39
Bus Reactor with associated bays at Nalagarh	2001-02	69.17	11.07
	2002-03	69.17	11.07
	2003-04	69.17	11.07
220 kV D/C Jalandhar-Dasuya transmission line along with associated bays at Jalandhar & Dasuya	2001-02	320.17	51.23
	2002-03	320.17	51.23
	2003-04	320.17	51.23
400/220 kV ICT-I and LILO of Chamera-Moga transmission line along with associated bays at Jalandhar	2001-02	1410.51	225.68
	2002-03	1410.51	225.68
	2003-04	1410.51	225.68

(b) Interest on notional loan

(Rs in lakh)

Name of the asset	Year	Gross Loan-Opening	Cumulative Repayment up to previous year	Net Loan Opening	Repayment during the year	Net Loan Closing	Interest
400 kV D/C Abdullapur-Bawana transmission line with associated bays, 315 MVA ICT-II at Abdullapur sub-station, 220 kV Jorian (HVPNL) bay at Abdullapur sub-station and 400 kV D/C Nalagarh Hissar line with associated bays	2001-02	42394.33	83.08	42311.25	4692.42	37618.82	5531.47
	2002-03	42394.33	4775.50	37618.82	2310.76	35308.07	4938.49
	2003-04	42394.33	7086.26	35308.07	2954.70	32353.36	3660.77
ICT-I at Nalagarh	2001-02	1249.30	0.00	1249.30	36.00	1213.30	113.52
	2002-03	1249.30	36.00	1213.30	1.20	1212.10	109.46
	2003-04	1249.30	37.20	1212.10	32.99	1179.11	100.10

ICT-II at Nalagarh	2001-02	1176.41	0.49	1175.92	45.51	1130.41	105.36
	2002-03	1176.41	46.00	1130.41	1.50	1128.91	100.20
	2003-04	1176.41	47.50	1128.91	37.51	1091.40	88.54
Bus Reactor with associated bays at Nalagarh	2001-02	547.25	0.00	547.25	13.00	534.25	43.95
	2002-03	547.25	13.00	534.25	7.61	526.64	42.19
	2003-04	547.25	20.61	526.64	9.97	516.66	38.08
220 kV D/C Jalandhar-Dasuya transmission line alongwith associated bays at Jalandhar & Dasuya	2001-02	1207.25	0.00	1207.25	0.00	1207.25	130.70
	2002-03	1207.25	0.00	1207.25	0.00	1207.25	128.91
	2003-04	1207.25	0.00	1207.25	95.50	1111.75	119.64
400/220 kV ICT-I and LILO of Chamera-Moga transmission line along with associated bays at Jalandhar	2001-02	5226.92	0.00	5226.92	0.00	5226.92	508.77
	2002-03	5226.92	0.00	5226.92	0.00	5226.92	507.54
	2003-04	5226.92	0.00	5226.92	277.87	4949.05	486.96

(c) Depreciation

(Rs. in lakh)

Name of the asset	Year	Rate of Depreciation	Depreciable Value	Remaining Depreciable Value	Depreciation
400 kV D/C Abdullapur-Bawana transmission line with associated bays, 315 MVA ICT-II at Abdullapur sub-station, 220 kV Jorian (HVPNL) bay at Abdullapur sub-station and 400 kV D/C Nalagarh Hissar line with associated bays	2001-02	2.71%	44294.19	40907.43	1332.03
	2002-03			37374.57	1332.03
	2003-04			35063.81	1332.03
ICT-I at Nalagarh	2001-02	3.60%	1330.36	1263.27	53.21
	2002-03			1210.06	53.21
	2003-04			1156.85	53.21
ICT-II at Nalagarh	2001-02	3.60%	1184.69	1076.91	47.39
	2002-03			1029.52	47.39
	2003-04			982.13	47.39
Bus Reactor with associated bays at Nalagarh	2001-02	3.60%	554.78	508.58	22.19
	2002-03			486.39	22.19

	2003-04			464.20	22.19
220kVD/C Jalandhar-Dasuya transmission line along with associated bays at Jalandhar & Dasuya	2001-02	2.76%	1374.68	1353.19	42.13
	2002-03			1311.06	42.13
	2003-04			1268.93	42.13
400/220kV ICT-I and LILO of Chamera-Moga transmission line along with associated bays at Jalandhar	2001-02	3.25%	5973.69	5857.48	215.44
	2002-03			5642.04	215.44
	2003-04			5426.60	215.44

(d) Advance Against Depreciation

(Rs. in lakh)

Name of the asset	Year	1/12 th of Gross Loan(s)	Scheduled Repayment of Loan(s)	Minimum of the two	Depreciation during the year	Advance Against Depreciation
400 kV D/C Abdullapur-Bawana transmission line with associated bays,315 MVA ICT-II at Abdullapur sub-station,220 kV Jorian (HVPNL) bay at Abdullapur sub-station and 400 kV D/C Nalagarh Hissar transmission line with associated bays	2001-02	3532.86	4692.42	3532.86	1332.03	2200.83
	2002-03	3532.86	2310.76	2310.76	1332.03	978.73
	2003-04		2954.70	2954.70		1622.67
		3532.86			1332.03	
ICT-I at Nalagarh	2001-02	104.11	36.00	36.00	53.21	0.00
	2002-03	104.11	1.20	1.20	53.21	0.00
	2003-04	104.11	32.99	32.99	53.21	0.00
		104.11			53.21	0.00
ICT-II at Nalagarh	2001-02	98.03	45.51	45.51	47.39	0.00
	2002-03	98.03	1.50	1.50	47.39	0.00
	2003-04	98.03	37.51	37.51	47.39	0.00
		98.03			47.39	0.00
Bus Reactor with associated bays at Nalagarh	2001-02	45.60	13.00	13.00	22.19	0.00
	2002-03	45.60	7.61	7.61	22.19	0.00
	2003-04	45.60	9.97	9.97	22.19	0.00
220kVD/C Jalandhar-Dasuya transmission line along with associated bays at Jalandhar & Dasuya	2001-02	100.60	0.00	0.00	42.13	0.00
	2002-03	100.60	0.00	0.00	42.13	0.00
	2003-04	100.60	95.50	95.50	42.13	53.37
LILO of Chamera-Moga transmission line along with associated bays at Jalandhar and 400/220kV ICT-I at Jalandhar	2001-02	435.58	0.00	0.00	215.44	0.00
	2002-03	435.58	0.00	0.00	215.44	0.00
	2003-04	435.58	277.87	277.87	215.44	62.43

(g) Interest on working capital

(Rs. in lakh)

Name of the asset	Year	Maintenance spares	O&M expenses	Receivables	Total	Rate of Interest	Interest
400 kV D/C Abdullapur-Bawana transmission line with associated bays, 315 MVA ICT-II at Abdullapur sub-station, 220 kV Jorian (HVPNL) bay at Abdullapur sub-station and 400 kV D/C Nalagarh Hissar transmission line with associated bays	2001-02	500.82	45.28	1828.71	2,374.80	11.50%	273.10
	2002-03	530.87	48.00	1526.46	2,105.32		242.11
	2003-04	562.72	50.88	1425.32	2,038.91		234.48
ICT-I at Nalagarh	2001-02	15.18	1.09	37.08	53.35	11.50%	6.14
	2002-03	16.09	1.15	36.55	53.79		6.19
	2003-04	17.06	1.22	35.12	53.40		6.14
ICT-II at Nalagarh	2001-02	0.00	1.09	31.99	33.08	11.50%	3.80
	2002-03	0.00	1.15	31.25	32.40		3.73
	2003-04	0.00	1.22	29.41	30.63		3.52
Bus Reactor with associated bays at Nalagarh	2001-02	4.48	1.09	15.44	21.01	11.50%	2.42
	2002-03	4.75	1.15	15.28	21.18		2.44
	2003-04	5.03	1.22	14.73	20.98		2.41
220 kV D/C Jalandhar-Dasuya transmission line alongwith associated bays at Jalandhar & Dasuya	2001-02	15.88	8.59	56.06	80.53	11.50%	9.26
	2002-03	16.83	9.10	56.84	82.77		9.52
	2003-04	17.84	9.65	65.48	92.96		10.69
400/220kV ICT-I and LILO of Chamera-Moga transmission line along with associated bays at Jalandhar	2001-02	47.71	6.95	176.66	231.32	11.50%	26.60
	2002-03	50.57	7.37	177.37	235.31		27.06
	2003-04	53.61	7.81	185.45	246.87		28.39

(h) Revised Annual Transmission Charges

(Rs. in lakh)

Name of the asset	Year	Interest on Loan	Interest on Working Capital	Depreciation	Advance against Depreciation	Return on Equity	O & M Charges	Total
400 kV D/C Abdullapur-Bawana transmission line with associated bays,315 MVA ICT-II at Abdullapur sub-station,220 kV Jorian (HVPNL) bay at Abdullapur sub-station and 400 kV D/C Nalagarh Hissar transmission line with associated bays	2001-02	5531.47	273.10		2200.83		543.36	10972.23
	2002-03	4938.49	242.11	1332.03	978.73	1091.43	575.97	9158.75
	2003-04	3660.77	234.48		1622.67		610.52	8551.91
				1332.03		1091.43		
ICT-I at Nalagarh	2001-02	113.52					13.02	222.51
	2002-03	109.46	6.14	53.21	0.00	36.62	13.80	219.28
	2003-04	100.10	6.19	53.21	0.00	36.62	14.63	210.71
			6.14	53.21	0.00	36.62		
ICT-II at Nalagarh	2001-02	105.36					13.02	191.97
	2002-03	100.20	3.80	47.39	0.00	22.39	13.80	187.50
	2003-04	88.54	3.73	47.39	0.00	22.39	14.63	176.47
			3.52	47.39	0.00	22.39		
Bus Reactor with associated bays at Nalagarh	2001-02	43.95					13.02	92.64
	2002-03	42.19	2.42	22.19	0.00	11.07	13.80	91.69
	2003-04	38.08	2.44	22.19	0.00	11.07	14.63	88.38
			2.41	22.19	0.00	11.07		
220 kV D/C Jalandhar-Dasuya transmission line along with associated bays at Jalandhar & Dasuya	2001-02	130.70	9.26				103.05	336.37
	2002-03	128.91	9.52	42.13	0.00	51.23	109.24	341.02
	2003-04	119.64	10.69				115.79	392.85
				42.13	53.37	51.23		
400/220 kV ICT-I and LILO of Chamera-Moga transmission line along with associated bays at Jalandhar	2001-02	508.77	26.60				83.46	1059.95
	2002-03	507.54	27.06	215.44	0.00	225.68	88.47	1064.19
	2003-04	486.96	28.39				93.78	1112.68
				215.44	62.43	225.68		