PRESENTATION

ON

DRAFT PROPOSED REGULATIONS ON TERMS AND CONDITIONS OF TARIFF

(For Tariff period 2009-14)

BY

NHPC Ltd.

(A Govt. of India Enterprise)
Sector – 33, Faridabad (Haryana) – INDIA.

DATE : 3RD NOVEMBER, 2008 VENUE : SCOPE COMPLEX

Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

- The existing Regulations are based on the basic inherent feature of Hydro that is Hydro generation is linked with the availability of water.
- Regarding proposed draft regulations, NHPC feels the hydro generation has been dealt in the same manner as that of other type of generation where there is guaranteed supply of fuel i.e. coal, gas, diesel etc.
- Concept of capacity index (CI) was introduced since 2001 through ABT to link the Hydro generation with availability of water.
- Concept of NAPAF has been introduced by the Commission in place of CI which is linked with installed capacity (IC), whether water is available or not.
- Hydro stations (ROR) can't give full MW out put during the full year as per the installed capacity because the inflow in the river varies from day to day & month to month during the year. <u>NAPAF is conceptually wrong for Hydro.</u>

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Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

- **Proposed NAPAF for NHPC stations is discriminatory as it has been worked out on the theory that the stations which have performed better in the past, have been fixed higher NAPAF than other similar type of stations.**

<u>This approach is going to penalize the better performing stations</u>.

- **A ROR station which has achieved higher availability factor during last five years may not necessarily achieve the same availability in coming years of tariff period due to ageing of station besides Hydrology.**
- **CEA in the past and at present has designed the ROR Hydro schemes at around 51% to 54% Annual PLF.**
- **CERC in its explanatory memorandum to draft regulations (at page 87) had worked out Actual NAPAF of 57.1% for Salal based on the actual data of station from 2003-04 to 2007-08 but has fixed NAPAF of 60% for next five years tariff period.**
- **Prescribing the NAPAF of more than Design PLF for a ROR station which is more than 21 years old, will be <u>artificial and imaginary.</u>**
- **NAPAF has to be same for similar type of station irrespective of ownership to give a same level playing field to all utilities so that generation of electricity are conducted on commercial principles and the efficiency is rewarded which shall be in line with the provision of section – 61 of the Electricity Act, 2003.**

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Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

STATION	DESIGN PLF (%)	NAPAF FIXED IN DRAFT REGULATIONS (%)
SALAL	50.99	60
TANAKPUR	54.80	55
URI	61.53	60

RECOMMENDATION :

- **NAPAF should not be fixed above 90% of Design PLF for ROR stations and 85% for pondage/ storage type stations.**
- **CERC in its draft Amendment to Tariff Regulations dt. 08.02.2008 proposed to be implemented from 1.04.2008 had proposed NAPAF of 80% for Storage & Pondage stations.**
- **For all new power stations (ROR, Pondage / Storage stations), NAPAF for first year of operation should be 5% less than the normal NAPAF as proposed by commission itself in the above draft amendment to tariff regulation.**

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Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

- With the new concept of NAPAF and apportioning of AFC into the capacity charges and energy charges in the ratio of 50:50, the energy charges of a Hydro stations will only be recovered if that station is able to generate full design energy irrespective of inflows in the river during the year. This means that the poor hydrology is to be wholly borne by the Hydro generator but on the other hand if there is a good hydrology, the draft regulations are proposing to share the same with the beneficiaries.
- **This is not justified & not based on the equitable principle when the business is to be run on the commercial principle.**
- The energy above the design energy should not be scheduled and be kept at disposal of Generator to be sold in the open market such as power exchange to get a compensation for poor hydrology.

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Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

Impact of proposed Regulations on NHPC stations

on a/c of Annual Fixed Charges (FY 2007-08)

(Rs. Crs.)

Station	Tanakpur	URI-I	SALAL	CHP-I	BSP	CPS-II	Dhauliganga	Rangit	Loktak	Dulhasti	Total
Primary Energy Rate (Rs./kWh) (as per existing Regulations)	0.85	0.85	0.65	0.85	0.85	0.85	0.85	0.63	0.41	0.85	
Primary Energy Charges as billed as per REA (as per the existing regulations)	33.19	190.99	173.13	123.03	44.48	104.13	83.91	18.09	15.87	139.82	**786.82**
Capacity Charge as billed as per REA (as per the existing regulations)	11.66	118.16	0.16	73.51	6.81	234.33	91.91	28.28	34.14	353.38	**598.96**
AFC recovered (as per Existing Regualation)	44.85	309.15	173.30	196.54	51.29	338.46	175.82	46.37	50.01	493.20	**1385.78**
Energy Charge Rate (as per proposed Regulation) (Rs./kWh)	0.58	0.69	0.32	0.68	0.38	1.30	0.89	0.79	0.64	0.90	
Energy Charges up to design energy (as per the proposed Regulations)	22.30	154.32	86.65	98.27	19.67	158.90	87.91	22.46	25.00	147.96	**675.48**
Capacity Charge (as per the proposed Regulations)	21.86	154.57	77.16	98.27	25.65	169.23	87.91	23.18	24.87	345.24	**682.71**
AFC to be recovered (as per Proposed Regualation)	44.17	308.89	163.81	196.54	45.32	328.13	175.82	45.64	49.87	493.20	**1358.19**
Loss	-10.88	-36.67	-86.49	-24.76	-24.81	54.77	4.00	4.37	9.14	8.14	**-27.59**

Reason for loss / Gain	The reason for this loss is that the energy charge rate (ECR) in respect of old stations will be less as per proposed regulations as these stations are having very low AFC. Existing energy rate of Tanakpur, Uri, Salal, CHP-I & BSP is 85 p/kwh, 85 p/kwh, 64 p/kwh, 85 p/kwh & 85 p/kwh respectively whereas with the proposed normative CCAF (50%), the energy rate gets reduced to 58 p/kwh, 69 p/kwh, 32 p/kwh, 68 p/kwh & 38 p/kwh respectively in respect of these stations.

Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

Impact of proposed Regulations on NHPC stations

on a/c of secondary energy (FY 2007-08)

(Rs. Crs.)

Station	Tanakpur	URI-I	SALAL	CHP-I	BSP	CPS-II	Dhauliganga	Rangit	Loktak	Dulhasti	Total
Secondary Energy as billed as per REA (in the existing regulations)	0.00	0.00	8.68	32.61	0.00	0.00	3.43	0.00	5.17	20.77	**70.66**
Energy Charge beyond design energy (as per the proposed Regulations)	0.00	0.00	4.34	26.05	0.00	0.00	3.59	0.00	8.14	21.98	**64.11**
Loss	0.00	0.00	-4.34	-6.56	0.00	0.00	0.16	0.00	2.98	1.21	**-6.55**

Reason for loss / Gain	The reason for this loss is that the energy charge rate (ECR) in respect of old stations will be less as these stations are having very low AFC. Existing energy rate of Salal & Chamera-I is 64 p/kwh & 85 p/kwh respectively where with the proposed normative CCAF, the energy rate gets reduced to 32 p/kwh & 68 p/kwh respectively in respect of these stations.

Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

Impact of proposed Regulations on NHPC stations
on a/c of Higher Availability Factor (FY 2007-08)

(Rs. Crs.)

Station	Tanakpur	URI-I	SALAL	CHP-I	BSP	CPS-II	Dhauliganga	Rangit	Loktak	Dulhasti	Total
CI_N	90%	90%	90%	85%	85%	85%	85%	85%	85%	80%	
CI_A	83.39%	99.79%	98.20%	98.04%	94.93%	96.90%	92.70%	87.26%	90.20%	95.32%	
Incentive due to CI as billed (as per the existing regulations)	0.00	19.67	9.23	16.66	3.31	26.19	8.80	0.68	0.00	33.07	**117.62**
NAPAF	55%	60%	60%	90%	85%	90%	85%	85%	90%	90%	
PAFY (calculated)	52.54%	61.36%	53.43%	98.03%	95.11%	97.17%	92.90%	87.54%	89.52%	95.51%	
Capacity Charges beyond NAPAF (incentive) (as per the proposed Regulations)	0.00	3.51	0.00	8.77	3.05	13.47	8.17	0.69	0.00	21.12	**58.78**
Loss	0.00	-16.16	-9.23	-7.90	-0.26	-12.71	-0.63	0.01	0.00	-11.95	**-58.84**

Reason for loss / Gain

i) The recovery of incentive due to higher capacity index achieved based on the formula in existing regulation i.e. "Incentive due to CI = 0.65 X AFC (CI_A – CI_N) / 100 allows incentive on 65% of AFC.

The Draft regulations which propose CCAF of 50%, reduces this incentive from 65% to 50% of AFC.

ii) Loss is also due higher NAPAF fixed.

Total Impact on NHPC due to the proposed regulations = Rs.100 Crs. approx. for one year

MERIT ORDER DESPATCH

- In the existing regulations Hydro stations are a must run stations.

  In the merit order dispatch, the primary energy rate of a Hydro station was kept same as lowest variable charges of the thermal generating station of the concerned region so that Hydro could always be dispatched in the merit order operation and also to avoid backing down of Hydro and spillage of water.

- With the concept of CCAF, the energy rate of new Hydro stations, will be higher than the lowest variable charges of certain old thermal stations in the region.

- In such a scenario, the Hydro stations may be required to be back down in the merit order operation by RLDC's

- CAPACITY CHARGE APPORTIONING FACTOR (CCAF)

By fixing CCAF of 70% in respect of Dulhasti, the Regulations propose to cap the energy charge rate (ECR) of this station which means reduction in incentive due to secondary energy. <u>This approach in the Regulation is not equitable and against the development of Hydro.</u>

RECOMMENDATION :

Same CCAF for all the Hydro Stations.

ADDITIONAL CAPITALISATION

- **Certain works / services are envisaged only when the Hydro Generating Station comes into operation and the performance of the station gets evaluated which cannot be visualized during construction.**
- **Heavy damage of underwater parts such as Runner Assembly, Servomotors, Guide Vanes, Labyrinth, Thrust bearings, Shaft Seal etc. due to high silt content & replacement of these parts thereof**
- **Technological improvement such as Computerization, automation, SCADA, cyclone separator, condition monitoring equipments, Communication, replacement of switch yard equipments (Breakers, CT's, PT's) etc as undertaken by NHPC in the old stations in past such as Salal, Bairasiul, Loktak, Tanakpur etc .**

The Commission in the "explanatory memorandum" at para 5.19 (Page 10) has agreed to provide the special allowance "In case of Hydro generating station on merit on case to case basis where certain parts have to be replaced due to erosion caused by high silt content in water" but the Commission has not included the same in the draft Regulation 10 regarding the Additional capitalisation.

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ADDITIONAL CAPITALISATION

RECOMMENDATION :

- In a cost based tariff regime, the actual expenditure incurred by the Hydro Generating Stations **"Any additional works / services which has become necessary for efficient and successful operation of plant but not included in the original capital cost."** be allowed.
- Capital expenditure incurred after cut off date on account of "**deferred liabilities / works relating to works / services with in the original scope of works**" be allowed.
- **Capital expenditure on minor assets** needs to be allowed .
- Regulation should also provide **"special allowance"** on normative basis in case of hydro stations also as provided for thermal.

CAPITAL COST :

- The capital cost should also include opportunity cost during construction on equity contribution.

RENOVATION & MODERNISATION

The draft regulations provide for R&M for the purpose of extension of life beyond the useful life of the generating station.

Comments:- In case of Hydro, the R&M is also required for attending the major works which are necessary for smooth operation of power station during the useful life.

- The Tariff policy at clause 5.3(g) provides that R&M for efficiency level needs to be encouraged.

ILLUSTRATION :

- NHPC commissioned Loktak Power Station in 1983. After completion, the commercial generation was started on 1st June, 1983. However, in the last week of July, 1983 a heavy slide occurred in the low cover reach of HRT just upstream of surge shaft and 33m length of tunnel collapsed. After the collapse, the affected reach was reconstructed. Due to difficult geological conditions like squeezing grounds and the collapse mentioned above, certain reach of the tunnel had to be modified .Due to the reduction of Head, the output got reduced from 105 MW to 90 MW. For this reason, R&M works were necessitated to replace the runner and to replace other associated components of machines and auxiliaries to achieve the output with the available head & discharge.

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Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

- **In the existing regulatory framework, R&M works were undertaken by the Central Hydro Generating Company such as NHPC with the approval of CEA as CEA used to decide and approve schemes of R&M after due examination and deliberations and CEA being the authority having technical competency for such works related to Hydro.**
- **The role of CEA for such technical approvals is silent in the draft Regulations.**

RECOMMENDATION :

Regulations may also allow the expenditure on R&M other than extension of life in case of Hydro on case to case basis.

RETURN ON EQUITY :

A public sector company, where the prices are regulated, should be allowed a fair rate of return on capital. The rate of return is considered to be fair, if it satisfies the following:-

a) It is similar to the return earned by the companies with comparable risk.

b) It should be able to generate sufficient internal resources needed to fund new projects of Hydro generating Company so that capacity addition programme is not only sustained but accelerated.

Note :

Tariff policy also provides that the Rate of Return should be such that it allows generation of reasonable surplus for growth of the sector.

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Study by Consultant : Consultant has recommended required ROE for NHPC is 19.34%.

If we go as per commission's regulations in the past regarding ROE, the ROE for new Tariff period proportionately works out to 18.78%

YEAR	SBI PLR (%)	ROE (%)
2001	11.5	16
2004	10.25	14
2008	13.75	14
Proportionate Return on Equity for 2009-14	13.75	18.78 (14/10.25X13.75)

RECOMMENDATION :

In view of the increase in interest rates in the market (13.75% SBI-PLR as on 1st August, 2008), the rate of Return on Equity needs to be increased for Power Sector to absorb the present increased trend of interest rates.

Further additional premium of 1% may be allowed to Hydro Sector to cover the risks specific to Hydro such as :

- **Hydrological Risks (Land slides, slope failures, submerging of the dam area, very high silt in river beds, floods & intense winter)**
- **Special Risks (Terrorism, border with neighboring countries, extreme environmental conditions (Leh & Kargil)**
- **Technical Risks(Erosion of under-parts etc. by high silt etc.)**

INTEREST ON LOAN CAPITAL

- **Commission has considered only one side of the case i.e. when cumulative depreciation recovered is more than the cumulative normative repayment of loan but has ignored vice versa of the case i.e. when cumulative depreciation recovered less than the cumulative normative repayment of loan.**
- **In case of NHPC, the situation has been reverse than what is proposed in draft regulation as above.**
- **Total cumulative depreciation recovered in tariff is much less than cumulative normative loan repayment allowed in tariff and NHPC has already made excess repayment amounting to Rs.1176.08 Crs. above the cumulative depreciation (including of AAD) recovered through tariff in respect of its various stations and this excess repayment has not been serviced in tariff so far.**

RECOMMENDATION :

Provision should also be provided where cumulative repayment is higher than cumulative depreciation including AAD recovered.

DEPRECIATION :

- **The longer tenure loans of 15 years or more are not available usually in the market for power sector. The tenure of most of debts is 10 to 12 years. In case of NHPC's recently Commissioned projects such as Dulhasti and Teesta-V, the tenure of loans is 10 to 12 years maximum.**
- **The repayment period in the regulations needs to be taken as 12 years only and accordingly rate of depreciation for first 12 years in case of a Hydro Generating Station shall work out as 5.83% and the same needs to be allowed. Depreciation for remaining life may be taken as 1.09%.**
- **Alternatively, tariff policy also provides that the rate of depreciation notified would be applicable for the purpose of tariffs as well as accounting for which depreciation rate as per the Companies Act ,1956 should be adopted in Tariff.**
- **The land which comes under submergence due to the creation of reservoir cannot be used as a freehold land. Therefore, depreciation on this portion of land needs to allowed in the regulation.**

O&M EXPENSES

- **Cost of Rehabilitation & Resettlement works is a part of capital cost and hydro generating company incurs actual expenditure on these works.**
- **The expenditure on creating facilities such as schools, hospitals, roads and bridges, afforestation which also are a part of R&R are also used by the local population and these facilities also require to be maintained by the Hydro generator.**
- **Therefore, cost of R&R works should not be excluded from capital cost for the purpose of calculating O&M expenses of new projects.**
- **From the O&M expenses incurred by NHPC in respect of its new stations such as Chamera-II & Dhauliganga, it can be seen that the actual expenses for the FY 2007-08 are 49% higher than the normative (in case of Chamera-II) and 80.76% higher than the normative incase of Dhauliganga.**
- **Actual O&M expenses much higher than the normative O&M expenses allowed by the Commission and the increase varies from 20% to 95%.**
- **The average actual O&M expense of these projects comes to the tune of 3% from the first year of operation.**

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O&M EXPENSES

Regulation should provide that O&M expenses be allowed @3% of capital cost for the new projects which are not in operation for 5 years.

ESCALATION :

<u>Reason</u> : The WPI and CPI is not the true reflection of the actual inflation in the business of Hydro Generation. The Commission has worked out the escalation factor based on the inflation during the last 5 years and this factor is not taking into account the inflation in the years of the coming tariff period.

Escalation factor may be taken as 6% and be reviewed at the end of each year during the tariff period 2009-14 if deviation of escalation factor computed from actual escalation is exceeding (+/-) 20%.

INTEREST ON WORKING CAPITAL :

- **The Commission in draft regulations is proposing to disallow the one month O&M expenses to be covered in working capital.**

  The expenses on security, administrative expenses, salaries and wages which are the part of O&M expenses are paid every month. Due to this reason the provision of O&M expenses for one month has always been included in the working capital in the norms prescribed by GOI and Commission in the past.

INTEREST ON WORKING CAPITAL :

- **The Commission in Draft Regulation is proposing to reduce the provision of receivables from two months (60 days) to 45 days in the working capital**

  Billing in respect of the energy generated for a period of one month (30 days) is done after the completion of the month and payment can be received upto the end of third month because surcharge is allowed to be levied by the generator after 60 days from the date of billing as per the existing & draft regulations. So the beneficiary can make payment within 2 months time from date of billing. This means that the energy which is supplied by the generating company on day 1 is getting paid within 60 to 90 days. In view of this factual position, the generating company gets receivables only after two months.

RECOMMENDATION :

1. **It is recommended that Regulation for working capital should include one month O&M expenses.**
2. **It is prayed that receivables equal to two months may be covered in the working capital as per the existing Regulation.**

OTHER CHARGE :

DEEMED GENERATION

- **The draft regulation does not contain any provision of Deemed Generation for reasons beyond the control of generators such as transmission constants, grid disturbances, backing down instructions & flood / high siltation.**
- **It is recommended that the existing provision for deemed generation may be included in the final regulation and its definition be also given in the regulation-3 pertaining to definitions.**
- **ERPC in its comments to CERC has also conveyed the same view point.**

CONCLUSION :

- **In the cost based tariff regime, NHPC has already been losing approximately Rs.120 Crs. in the year 2007-08 in the O&M expenses.**
- **Taking into consideration the actual O&M expenses than the normative O&M expenses allowed in the tariff, NHPC's effective rate of return on Equity works out to be 12% and further considering the impact of Rs.100 Crs. due to above proposed draft regulations, net rate of return on equity will further reduce to 10%.**
- **There is an equity requirement of Rs.16561.41 Crs. in the projects which are under construction/ awaiting PIB approval / CCEA Approval.**
- **The provisions of draft regulations in respect of hydro are illogical, unjustified, not based on equitable principles, artificial & imaginary.**
- **Through this proposed Regulation, there will be a negative impact on the investment to be made by NHPC in the development of hydro projects.**
- **The various provisions of draft regulations as discussed above will be deterrent to the investment in hydro both in public & private as well as for the country's growth as these are not attractive to the developers.**

CONCLUSION :

In order to attract investment in Hydro so that available hydro potential in country is exploited, it is suggested that existing Regulations in respect of Hydro be continued except that ROE should be increased keeping in view the increase in Interest rates in the market and escalation factor also needs to be realistic.

Thanks

Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

PROJECTS AWAITING CCEA APPROVAL

Table-1

Sl. No.	Project	Capacity (MW)	Present Day Cost		Debt (70%)	Equity (30%)
			Amount (Rs. Crs)	Price level		
1	Kotli Bhel Stage-IA	195	1138.02	Aug-06	796.614	341.406
2	Kotli Bhel Stage-IB	320	1891.91	Sep-06	1324.337	567.573
3	Kotli Bhel-II	530	2676.52	Oct-06	1873.564	802.956
4	Loktak Downstream	66	627.21	Oct-06	439.047	188.163
5	Dibang	3000	15886.4	Nov-07	11120.48	4765.92
6	**Total**	4111	22220.06		15554.042	6666.018

PROJECTS AWAITING PIB APPROVAL

Table-2

Sl. No.	Project	Capacity (MW)	Present Day Cost		Debt (70%)	Equity (30%)
			Amount (Rs. Crs)	Price level		
1	Pakal Dul	1000	5511.83	Aug-06	3858.281	1653.549
2	**Total**	**1000**	**5511.83**		**3858.281**	**1653.549**

PROJECTS AWAITING TEC

Table-3

Sl. No.	Project	Capacity (MW)	Present Day Cost		Debt (70%)	Equity (30%)
			Amount (Rs. Crs)	Price level		
1	Vyasi	120	759.58	Jul-06	531.706	227.874
2	Teesta-IV	520	3703.26	Mar-08	2592.282	1110.978
3	**Total**	**640**	**4462.84**		**3123.988**	**1338.852**

Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

ONGOING PROJECTS

Table-4

Sl. No.	Project	Capacity (MW)	Present Day Cost		Debt (70%)	Equity (30%)
			Amount (Rs. Crs)	Price level		
1	Parbati Stage- II	800	3919.59	Dec-01	2743.713	1175.88
2	Sewa-II	120	665.46	Sep-02	465.822	199.64
3	Teesta Low Dam-III	132	768.92	Dec-02	538.244	230.68
4	Subansiri(Lower)	2000	6285.33	Dec-02	4399.731	1885.60
5	Uri-II	240	1724.79	Feb-05	1207.353	517.44
6	Chamera-III	231	1405.63	Feb-05	983.941	421.69
7	Parbati-III	520	2304.55	May-05	1613.185	691.37
8	Nimoo Bazgo	45	611.01	Dec-05	427.707	183.30
9	Chutak	44	621.26	Dec-05	434.882	186.38
10	Teesta Low Dam-IV	160	1061.38	Mar-05	742.966	318.41
11	KishenGanga	330	3642.04	Sep-07	2549.43	1092.61
12	Total	4622	23009.96		16106.97	6902.99
13	Grand Total of Table 1 to 4	10373	55204.69		38643.28	16561.41

Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

DETAILS OF CUMULATIVE REPAYMENT & CUMULATIVE DEPRECIATION (INCLUDING AAD) IN RESPECT OF NHPC GENERATING STATIONS - AS ALLOWED BY CERC IN TARIFF ORDERS

URI HE PROJECT

(Rs. in Lakhs)

PARTICULARS	UPTO 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation during the year as per cerc order		8725.91	8725.91	8725.91	8725.91	5121.79
AAD during the year as per cerc order		10562.64	5849.56	14614.99	0.00	0.00
Cumulative depr. including AAD recovered upto the year as per CERC order (para 34)	113354.25	132642.80	147218.27	170559.17	179285.08	184406.87
Repayment during the year (normative) as per cerc order		19288.55	14575.46	28326.42	7869.54	0.00
Cumulative Repayment upto the year as per cerc order	163348.96	182637.51	197212.97	225539.39	133408.93	233408.93
DIFFERENCE (cumulative)	**-49994.71**	**-49994.71**	**-49994.70**	**-54980.22**	**-54123.85**	**-49002.06**

RANGIT HE PROJECT

(Rs. in Lakhs)

PARTICULARS	UPTO 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation during the year as per cerc order		1156.05	1156.05	1156.05	867.88	867.88
AAD during the year as per cerc order		1891.59	0.00	347.07	0.00	0.00
Cumulative depr. including AAD recovered upto the year	9111.27 *	12158.91	13314.96	14818.08	15685.96	16553.84
Repayment during the year (normative) as per cerc order		8746.10	1156.05	1503.12	0.00	0.00
Cumulative Repayment upto the year as per cerc order	19071.10	27817.20	28973.25	30476.37	30476.37	30476.37
DIFFERENCE (cumulative)	**-9959.83**	**-15658.29**	**-15658.29**	**-15658.29**	**-14790.41**	**-13922.53**

* CERC has taken the wrong figure of Rs.10655.49 lacs. in place of Rs.9111.27 lacs which is the correct figure & rectified by CERC in review order.

SALAL HE PROJECT

(Rs. in Lakhs)

PARTICULARS	UPTO 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation during the year as per CERC order		2123.98	2123.98	1845.14	1845.14	1845.14
AAD during the year as per CERC order		1471.35	0.00	0.00	0.00	0.00
Cumulative depr. including AAD recovered upto the year as per CERC order (para 48)	30332.77	33928.10	36052.09	37897.23	39742.36	41587.50
Repayment during the year (normative) as per cerc order		3595.34	1982.58	0.00	0.00	0.00
Cumulative Repayment upto the year as per cerc order	37373.26	40968.60	42951.18	42951.18	42951.18	42951.18
DIFFERENCE (cumulative)	**-7040.49**	**-7040.50**	**-6899.09**	**-5053.95**	**-3208.82**	**-1363.68**

Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

TANAKPUR HE PROJECT

(Rs. in Lakhs)

PARTICULARS	UPTO 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation during the year as per CERC order		872.85	872.85	872.85	610.34	610.34
AAD during the year as per CERC order		0	0	0	0	0
Cumulative depr. including AAD recovered upto the year as per CERC order (para 34)	14646.81	15519.66	16392.51	17265.35	17875.69	18486.03
Repayment during the year (normative) as per cerc order		872.85	872.85	537.96	0	0
Cumulative Repayment upto the year as per cerc order	26985.4	27858.25	28731.09	29269.05	29269.05	29269.05
DIFFERENCE (cumulative)	-12338.59	-12338.59	-12338.58	-12003.7	-11393.36	-10783.02

CHAMERA-II HE PROJECT

PARTICULARS	UPTO 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation during the year as per cerc order		5427.87	5427.87	5427.87	5427.87	5427.87
AAD during the year as per cerc order		0.00	496.64	5760.19	7216.13	7216.13
Cumulative Depreciation including AAD recovered upto the Year as per cerc order (Para 30)	1185.97	6613.84	12538.35	23726.41	36370.41	49014.41
Repayment during the year (normative) as per cerc order		5896.26	6642.08	11188.05	13603.10	13603.10
Cumulative Repayment upto the year as per cerc order	0.00	5896.26	12538.34	23726.39	37329.49	50932.59
DIFFERENCE (cumulative)	1185.97	717.58	0.01	0.02	-959.08	-1918.18

BAIRASIUL HE PROJECT

(Rs. in Lakhs)

PARTICULARS	UPTO 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation during the year as per cerc review order		455.89	477.29	477.29	477.29	477.29
AAD during the year as per cerc review order		566.12	0.00	0.00	0.00	0.00
Cumulative Depreciation including AAD recovered upto the Year as per cerc order (Para 33)	7461.39	8483.4	8960.69	9437.98	9915.27	10392.56
Repayment during the year (normative) as per cerc order		2639.15	0.00	0.00	0.00	0.00
Cumulative Repayment upto the year as per cerc order	7581.00	10220.15	10220.15	10220.15	10220.15	10220.15
DIFFERENCE (cumulative)	-119.61	-1736.75	-1259.46	-782.17	-304.88	172.41

Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

CHAMERA-I HE PROJECT

(Rs. in Lakhs)

PARTICULARS	UPTO 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation during the year as per cerc order		4918.00	3591.61	3591.61	3591.61	3591.61
AAD during the year as per cerc order		0.00	0.00	0.00	0.00	0.00
Cumulative Depreciation including AAD recovered upto the Year as per cerc order (Para 33)	80005.74	84923.74	88515.35	92106.96	95698.57	99290.18
Repayment during the year (normative) as per cerc order		46.58	0.00	0.00	0.00	0.00
Cumulative Repayment upto the year as per cerc order	140620.27	140666.85	140666.85	140666.85	140666.85	140666.85
DIFFERENCE (cumulative)	-60614.53	-55743.11	-52151.5	-48559.89	-44968.28	-41376.67

LOKTAK HE PROJECT

(Rs. in Lakhs)

PARTICULARS	UPTO 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation during the year as per CERC review order		506.96	506.96	506.96	506.96	506.96
AAD during the year		0.00	0.00	0.00	0.00	0.00
Cumulative Depreciation including AAD recovered upto the Year as per cerc order (Para 31)	5648.23	6155.19	6662.15	7169.11	7676.07	8183.03
Repayment during the year (normative)		238.97	0.00	0.00	0.00	0.00
Cumulative Repayment upto the year	7358.42	7597.39	7597.39	7597.39	7597.39	7597.39
DIFFERENCE (cumulative)	-1710.19	-1442.2	-935.24	-428.28	78.68	585.64

DHAULIGANGA HE PROJECT

(Rs. in Lakhs)

PARTICULARS	UPTO 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation during the year			1660.30	3943.07	3979.78	3979.78
AAD during the year			0.00	0.00	0.00	80.36
Cumulative Depreciation including AAD recovered upto the Year as per cerc order		0.00	1660.30	5603.37	9583.15	13643.29
Repayment during the year (normative)			1581.64	3943.07	3979.78	4138.80
Cumulative Repayment upto the year		0.00	1581.64	5524.71	9504.49	13643.29
DIFFERENCE (cumulative)		0.00	78.66	78.66	78.66	0.00

CUMULATIVE REPAYMENT & CUMULATIVE DEPRECIATION (INCLUDING AAD) IN RESPECT OF NHPC OPERATING STATIONS

NHPC LTD.

(Rs. in Lakhs)

PARTICULARS	UPTO 2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation during the year		24187.51	24542.82	26546.75	26032.78	22428.66
AAD during the year		14491.70	6346.20	20722.25	7216.13	7296.49
Cumulative Depreciation including AAD recovered upto the Year	261746.43	300425.64	331314.66	378583.66	411832.57	441557.72
Repayment during the year (normative)		41323.80	26810.66	45498.62	25452.42	17741.90
Cumulative Repayment upto the year	402338.41	443662.21	470472.87	515971.49	541423.91	559165.81
DIFFERENCE (cumulative)	**-140591.98**	**-143236.57**	**-139158.21**	**-137387.83**	**-129591.34**	**-117608.09**

LOAN DETAILS OF NHPC PROJECTS UNDER CONSTRUCTION

Sl. No.	Name of BANK / FIs	Loan Agreement Date	Anticipated COD	Amount (Rs. Crs.)	Balance Repayment period from COD	Loan o/s as on anticipated COD	REPAYMENT TERMS
1	**SEWA-II**		**Jun-09**				
	POWER FINANCE CORPORATION	17.09.2007		413.00	10Y1M	413.00	40 Equal quartely inst. w.e.f. 15/07/2009
2	**PARBATI-II**		**Dec-10**				
	LIFE INSURANCE CORPORATION	14.02.2003		2500.00	10Y5M	657.00	24 Half Yearly inst. w.e.f. 15/04/2009
	POWER FINANCE CORPORATION	17.09.2007		2087.00	9Y5M	2087.00	40 Equal quartely inst. w.e.f. 15/04/2010
3	**TLDP-III**		**Dec-09**				
	POWER FINANCE CORPORATION	17.09.2007		500.00	9Y4M	500.00	40 Equal quartely inst. w.e.f. 15/04/2009
4	**URI-II**		**Aug-10**				
	LIFE INSURANCE CORPORATION	17.02.2005		6500.00	13Y9M	905.51	24 Half Yearly inst. w.e.f. 30/04/2012
5	**SUBANSIRI LOWER**		**Jan-12**				
	LIFE INSURANCE CORPORATION	17.02.2005		6500.00	12Y4M	3299.86	24 Half Yearly inst. w.e.f. 30/04/2012
6	**CHAMERA-III**		**Aug-10**				
	LIFE INSURANCE CORPORATION	17.02.2005		6500.00	13Y9M	737.96	24 Half Yearly inst. w.e.f. 30/04/2012
7	**PARBATI-III**		**Nov-10**				
	LIFE INSURANCE CORPORATION	17.02.2005		6500.00	13Y6M	1209.89	24 Half Yearly inst. w.e.f. 30/04/2012
8	**NIMMO-BAZGO**		**Aug-10**				
	LIFE INSURANCE CORPORATION	17.02.2005		6500.00	13Y9M	50.78	24 Half Yearly inst. w.e.f. 30/04/2012
9	**TLDP-IV**		**Aug-10**				
	POWER FINANCE CORPORATION	24.03.2008		750.00	11Y3M	750.00	40 Equal quartely inst. w.e.f. 15/10/2011
10	**CHUTAK**		**Feb-11**				
	POWER FINANCE CORPORATION	24.03.2008		70.00	10Y8M	70.00	40 Equal quartely inst. w.e.f. 15/10/2011

IMPACT OF DRAFT REGULATIONS ON RECOVERY OF AFC BAED ON THE ACTUAL BILLING FOR 2007-08

S.NO.	STATION	UNIT	TANAKPUR (ROR)	URI-I (ROR)	SALAL (ROR)	CHP-I	BSP	CPS-II	Dhauliganga	Rangit	Loktak	Dulhasti
	DESCRIPTION		DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA
1	INSTALLED CAPACITY	MW	94.2	480	690	540	180	300	280	60	90	390
2	DESIGN ENERGY	MU	452.19	2587.38	3082	1664.55	779.28	1499.89	1134.69	338.61	448	1890.9
3	AUXILIARY CONSUMPTION	%	0.5	0.7	0.5	0.7	0.2	0.7	0.7	0.5	0.2	0.7
4	TRANSFORMATION LOSSES	%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
5	DESIGN ENERGY (EX-BUS)	MU	447.67	2556.33	3051.18	1644.58	773.83	1481.89	1121.07	335.22	444.86	1868.21
6	*SALEABLE DESIGN ENERGY*	MU	393.95	2249.57	2685.04	1447.23	680.97	1304.06	986.54	295.00	391.48	1644.02
7	**ANNUAL FIXED CHARGE (AFC)**	Rs.(Crs.)	**45.7741**	**309.1496**	**173.2962**	**196.5388**	**51.2904**	**338.459**	**175.82**	**46.3699**	**50.0076**	**493.2**
8	SCHEDULED ENERGY (EX-BUS)(As per REA)	MU	436.21	2552.05	3204.17	2080.51	593.67	1391.45	1166.90	324.6804	589.7503	2145.72
9	FREE POWER (As per REA)	MU	46.47	309.08	387.13	252.67	71.26	168.52	141.24	39.38747	70.77003	259.71
10	ACTUAL SALEABLE ENERGY	MU	389.74	2242.97	2817.03	1827.84	522.41	1222.93	1025.66	285.2929	518.9802	1886.01
	EXISTING REGULATION											
11	PRIMARY ENERGY (Min of Sch Energy & DE (Ex-Bus)	MU	436.21	2552.05	3051.18	1644.58	593.67	1391.45	1121.07	324.68	444.86	1868.21
12	SALEABLE PRIMARY ENERGY	MU	389.74	2242.97	2682.53	1444.85	522.41	1222.93	985.38	285.29	391.48	1642.09
13	PRIMARY ENERGY RATE	RS.	0.8515	0.8515	0.645	0.8515	0.8515	0.8515	0.852	0.634	0.405	0.85
14	PRIMARY ENERGY CHARGE	Rs.(Crs.)	33.19	190.99	173.13	123.03	44.48	104.13	83.91	18.09	15.87	139.82
15	CAPACITY CHARGE	Rs.(Crs.)	11.66	118.16	0.16	73.51	6.81	234.33	91.91	28.28	34.14	353.38
16	**AFC RECOVERD**	**Rs.(Crs.)**	**44.85**	**309.15**	**173.30**	**196.54**	**51.29**	**338.46**	**175.82**	**46.37**	**50.01**	**493.20**
17	NORMATIVE CI	%	90	90	90	85	85	85	85	85	85	80
18	NORMATIVE CI for INCENTIVE	%	90	90	90	85	85	85	85	85	N.A	85
19	ACTUAL CI (As per REA)	%	83.386	99.789	98.195	98.042	94.934	96.903	92.704	87.26	90.201	95.316
20	INCENTIVE (DUE TO CI)	Rs.(Crs.)	0.00	19.67	9.23	16.66	3.31	26.19	8.80	0.68	0.00	33.07
21	SALEABLE SECONDARY ENERGY	MU	0.00	0.00	134.50	382.99	0.00	0.00	40.28	0.00	127.50	243.93
22	SECONDARY ENERGY CHARGE	Rs.(Crs.)	0.00	0.00	8.68	32.61	0.00	0.00	3.43	0.00	5.17	20.77
23	**TOTAL CHARGES(AFC+Incentive+Secondary)**	Rs.(Crs.)	**44.85**	**328.82**	**191.21**	**245.81**	**54.60**	**364.65**	**188.05**	**47.05**	**55.18**	**547.04**
24												
25	**PROPOSED REGULATION**											
26	NORMATIVE ANNUAL PLANT AVAILABILITY FACTOR (NAPAF)	%	55%	60%	60%	90%	85%	90%	85%	85%	90%	90%
27	CAPACITY CHARGE APPORTIONING FACTOR (CCAF)	%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	50.00%	70%
28	DECLARED CAPABILITY	MW	49.00	291.00	365.00	523	170	288	257	52	80	368
29	INSTALLED CAPCITY - AUX. - Tr.	MW	93.258	474.24	683.1	533.52	178.74	296.4	276.64	59.4	89.37	385.32
30	PLANT AVAILABILITY FACTOR (PAF) (Sl.No.28 / Sl. No.29)		52.54%	61.36%	53.43%	98.03%	95.11%	97.17%	92.90%	87.54%	89.52%	95.51%
31	CAPACITY CHARGE =AFCX CCAFX (PAFM/NAPAF) (sl 7xsl 27xsl 30/sl26)	Rs. Crs.	21.864	158.082	77.164	107.035	28.696	182.704	96.081	23.878	24.869	366.357
32	ENERGY CHARGE RATE sl 7x(1- sl27) x10/sl2 (1-sl 3-sl 4)x(1-12%)	Rs.	0.58	0.69	0.32	0.68	0.38	1.30	0.89	0.79	0.64	0.90
33	ENERGY CHARGE (sl 32x sl 8x(1-12%)	Rs.(Crs.)	22.30	154.32	90.99	124.32	19.67	158.90	91.50	22.46	33.15	169.94
34	**TOTAL CHARGES (Sl 31+Sl 33)**	**Rs.(Crs.)**	**44.17**	**312.40**	**168.16**	**231.35**	**48.37**	**341.61**	**187.58**	**46.33**	**58.02**	**536.30**
35	GAIN(+)/Loss(-) (Sl 34-Sl 23)	Rs.(Crs.)	-0.68	-16.42	-23.05	-14.46	-6.23	-23.04	-0.47	-0.72	2.84	-10.75
36	Total Loss											

*** Rs.7 CRs have been assumed as loss from Teesta-V which declared COD from April 2008.**

NORMATIVE V/S ACTUAL O&M EXPENSES

Sl. No.	Project → / DOC → / Period ↓	Baira Siul HEP				Loktak HEP			
		01.04.1982				01.06.1983			
		Normative	Actual	Difference	% loss / gain	Normative	Actual	Difference	% loss / gain
1	2001-02	2239.00	3470.01	(1231.01)	-54.98%	2145.00	3181.35	(1036.35)	-48.31%
2	2002-03	2373.00	3223.57	(850.57)	-35.84%	2274.00	3852.65	(1578.65)	-69.42%
3	2003-04	2515.00	3127.00	(612.00)	-24.33%	2410.00	3406.08	(996.08)	-41.33%
4	2004-05	3008.00	3825.17	(817.17)	-27.17%	3144.18	3855.02	(710.84)	-22.61%
5	2005-06	3128.00	3957.23	(829.23)	-26.51%	3269.94	4361.36	(1091.42)	-33.38%
6	2006-07	3253.00	4126.35	(873.35)	-26.85%	3400.74	4382.86	(982.12)	-28.88%
7	2007-08	3383.00	5090.89	(1707.89)	-50.48%	3400.74	4987.70	(1586.96)	-46.67%
Overall		**19899.00**	**26820.22**	**(6921.22)**	**-34.78%**	**20044.60**	**28027.02**	**(7982.42)**	**-39.82%**

NORMATIVE V/S ACTUAL O&M EXPENSES

Sl. No.	Project → / DOC → / Period ↓	Salal HEP				Tanakpur HEP			
		11/1987 & 01.04.1995				Apr-93			
		Normative	Actual	Difference	%loss / gain	Normative	Actual	Difference	%loss / gain
1	2001-02	5418.00	6658.48	(1240.48)	-22.90%	1716.00	2030.91	(314.91)	-18.35%
2	2002-03	5743.00	7616.38	(1873.38)	-32.62%	1819.00	2717.45	(898.45)	-49.39%
3	2003-04	6088.00	7495.64	(1407.64)	-23.12%	1928.00	2486.89	(558.89)	-28.99%
4	2004-05	7258.00	6949.76	308.24	4.25%	2145.00	2355.58	(210.58)	-9.82%
5	2005-06	7549.00	9025.66	(1476.66)	-19.56%	2231.00	3073.22	(842.22)	-37.75%
6	2006-07	7851.00	6621.26	1229.74	15.66%	2340.00	3194.37	(854.37)	-36.51%
7	2007-08	8165.00	8034.55	130.45	1.60%	2434.00	4755.55	(2321.55)	-95.38%
Overall		**48072.00**	**52401.73**	**(4329.73)**	**-9.01%**	**14613.00**	**20613.97**	**(6000.97)**	**-41.07%**

NORMATIVE V/S ACTUAL O&M EXPENSES

Sl. No.	Project →	Chamera-I HEP				URI HEP			
	DOC →	May-94				01.06.1997			
	Period ↓	Normative	Actual	Difference	% loss / gain	Normative	Actual	Difference	% loss / gain
1	2001-02	5874.00	5821.12	52.88	0.90%	6294.00	4495.52	1798.48	28.57%
2	2002-03	6227.00	5511.27	715.73	11.49%	6672.00	4513.57	2158.43	32.35%
3	2003-04	6600.00	6331.80	268.20	4.06%	7072.00	5887.97	1184.03	16.74%
4	2004-05	5934.00	6994.67	(1060.67)	-17.87%	5109.00	5014.29	94.71	1.85%
5	2005-06	6171.00	6172.80	(1.80)	-0.03%	5313.00	5287.28	25.72	0.48%
6	2006-07	6418.00	6909.65	(491.65)	-7.66%	5526.00	5015.78	510.22	9.23%
7	2007-08	6675.00	7945.37	(1270.37)	-19.03%	5747.00	5357.17	389.83	6.78%
Overall		**43899.00**	**45686.68**	**(1787.68)**	**-4.07%**	**41733.00**	**35571.58**	**6161.42**	**14.76%**

NORMATIVE V/S ACTUAL O&M EXPENSES

Sl. No.	Project →	Rangit HEP				Chamera-II HEP				Dhauliganga-I HEP			
	DOC →	15.02.2000				31.03.2004				01.11.2005			
	Period ↓	Normative	Actual	Difference	% loss / gain	Normative	Actual	Difference	% loss / gain	Normative	Actual	Difference	% loss / gain
1	2001-02	744.00	2091.35	(1347.35)	-181.10%								
2	2002-03	767.00	1638.00	(871.00)	-113.56%								
3	2003-04	795.00	1726.66	(931.66)	-117.19%	641.80	1305.49	(663.69)	-103.41%				
4	2004-05	839.19	1918.49	(1079.30)	-128.61%	2934.00	4592.07	(1658.07)	-56.51%				
5	2005-06	872.76	2131.46	(1258.70)	-144.22%	3051.00	4376.65	(1325.65)	-43.45%	1063.84	1870.87	(807.03)	-75.86%
6	2006-07	907.67	2949.34	(2041.67)	-224.94%	3173.00	4518.00	(1345.00)	-42.39%	2487.59	4271.42	(1783.83)	-71.71%
7	2007-08	943.98	1586.57	(642.59)	-68.07%	3300.00	4923.31	(1623.31)	-49.19%	2587.09	4676.54	(2089.45)	-80.76%
Overall		**5869.60**	**14041.87**	**(8172.27)**	**-139.23%**	**13099.80**	**19715.52**	**(6615.72)**	**-50.50%**	**6138.52**	**10818.83**	**(4680.31)**	**-76.24%**

Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

URI POWER STATION			
YEAR	INSTALLED CAPACITY IN MW	DESIGN ENERGY IN MUs	DESIGN ENERGY PLF (%)
1	2	3	4
1997-98	480	2587.38	61.53
1998-99	480	2587.38	61.53
1999-2000	480	2587.38	61.53
2000-01	480	2587.38	61.53
2001-02	480	2587.38	61.53
2002-03	480	2587.38	61.53
2003-04	480	2587.38	61.53
2004-05	480	2587.38	61.53
2005-06	480	2587.38	61.53
2006-07	480	2587.38	61.53
2007-08	480	2587.38	61.53

Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

TANAKPUR POWER STATION			
YEAR	INSTALLED CAPACITY IN MW	DESIGN ENERGY IN MUs	DESIGN ENERGY PLF (%)
1	2	3	4
1992-93	94.2	452.19	54.80
1993-94	94.2	452.19	54.80
1994-95	94.2	452.19	54.80
1995-96	94.2	452.19	54.80
1996-97	94.2	452.19	54.80
1997-98	94.2	452.19	54.80
1998-99	94.2	452.19	54.80
1999-2000	94.2	452.19	54.80
2000-01	94.2	452.19	54.80
2001-02	94.2	452.19	54.80
2002-03	94.2	452.19	54.80
2003-04	94.2	452.19	54.80
2004-05	94.2	452.19	54.80
2005-06	94.2	452.19	54.80
2006-07	94.2	452.19	54.80
2007-08	94.2	452.19	54.80

SALAL POWER STATION

YEAR	INSTALLED CAPACITY IN MW	DESIGN ENERGY IN MUs	DESIGN ENERGY PLF (%)
1	2	3	4
1987-88	345.00	2027.04	67.07
1988-89	345.00	2027.04	67.07
1989-90	345.00	2027.04	67.07
1990-91	345.00	2027.04	67.07
1991-92	345.00	2027.04	67.07
1992-93	345.00	2027.04	67.07
1993-94	345.00	2027.04	67.07
1994-95	345.00	2027.04	67.07
1995-96	690.00	3082.00	50.99
1996-97	690.00	3082.00	50.99
1997-98	690.00	3082.00	50.99
1998-99	690.00	3082.00	50.99
1999-00	690.00	3082.00	50.99
2000-01	690.00	3082.00	50.99
2001-02	690.00	3082.00	50.99
2002-03	690.00	3082.00	50.99
2003-04	690.00	3082.00	50.99
2004-05	690.00	3082.00	50.99
2005-06	690.00	3082.00	50.99
2006-07	690.00	3082.00	50.99
2007-08	690.00	3082.00	50.99

Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

Energy Charge Rate of NHPC stations
FY 2007-08

Station	Tanakpur	URI-I	SALAL	CHP-I	BSP	CPS-II	Dhauliganga	Dulhasti	Rangit	Dulhasti	Loktak
Primary Energy Rate (Rs./kWh) (as per Existing Regulation)	0.85	0.85	0.65	0.85	0.85	0.85	0.85	0.85	0.63	0.85	0.41
Energy Charge Rate (Rs./kWh) (as per proposed Regualtion)	0.58	0.69	0.32	0.68	0.38	1.30	0.89	2.50	0.79	0.90	0.64

Comments on "Draft proposed Regulations on Terms and Conditions of Tariff"

Loss of Energy Charges on a/c of failure of hydrology of NHPC stations
FY 2007-08

Station	Tanakpur	URI-I	SALAL	CHP-I	BSP	CPS-II	Dhauliganga	Rangit	Loktak	Dulhasti	Total	Loss
Energy Charge Rate (Rs./kWh) as per proposed Regualtion	0.58	0.69	0.32	0.68	0.38	1.30	0.89	0.79	0.64	0.90		
Design Energy (MU)	447.67	2556.33	3051.18	1644.58	773.83	1481.89	1121.07	335.22	444.86	1868.21	11856.63	
Saleable Design Energy (MU)	393.95	2249.57	2685.04	1447.23	680.97	1304.06	986.54	295.00	391.48	1644.02	10433.84	
Energy Charges (Rs. Crs.)	22.89	154.57	86.65	98.27	25.65	169.23	87.91	23.18	25.00	147.96	693.35	
Energy Charges with 10% hydrology failure (Rs. Crs.)	20.60	139.12	77.98	88.44	23.08	152.31	79.12	20.87	22.50	133.16	624.02	-69.34
Energy Charges with 20% hydrology failure (Rs. Crs.)	18.31	123.66	69.32	78.62	20.52	135.38	70.33	18.55	20.00	118.37	554.68	-138.67

Impact of draft regulations on NHPC stations for FY 2007-08

(Rs. Crs.)

(i)	Impact on a/c of recovery of AFC	=	-27.59
(ii)	Impact on a/c of Incentive due to secondary energy	=	-6.55
(iii)	Impact on a/c of NAPAF	=	-58.84
(iv)	Total [(i) to (iii)]	=	-92.98
(v)	Estimated impact in respect of Teesta-V	=	-7.00
	Total [(iv) + (v)]	=	-99.98
		Say	100.00