

## CHAPTER – 3

### 3.0 ERC AND TARIFF FILING OF KPTCL

#### 3.1 KPTCL's proposal in the ERC/ Tariff filing

##### 3.1.1 ERC for FY05

1. KPTCL in their ERC for FY05 have requested the Commission to approve the ARR for FY05 including additional revenue gap for FY03 & FY 04 as indicated below:

#### Bulk Supply Cost in FY05:

Rs. Crs.

Power purchase cost	6245.78
Interest on Power purchase cost	189.77
Est and A&G expenses of LDC	9.50
Total bulk supply cost	6445.05
Energy input at IF points in FY05	31626 MU
BST for FY05	203.79 paise per unit

#### Revenue Gap for FY03

Revenue gap for FY03	112.43
Additional power purchase cost	109.00
Tanir Bhavi Power Company for FY02 revenue gap for FY04	110.14
Total for previous years	331.57
Total Bulk supply Cost	6776.62
Combined BST	214.27 Paise per unit

2. KPTCL has requested the Commission to approve the BST for FY05 as 214.27 paise per unit from the existing 209.35 paise per unit which was approved in Tariff Amendment Order dated 15.12.2003.

3. Further, KPTCL has indicated the net transmission expenses for FY05 as Rs. 698.74 Crs. and has requested the Commission to approve the revised transmission charges at 22.09 paise per unit in FY05 from the existing 18.67 paise per unit determined in Tariff Amendment Order dated 15.12.2003.

### 3.1.2 ERC for FY06

1. KPTCL in their ERC for FY06 have requested the Commission to approve the ARR for FY06, BST and transmission charges as indicated below:

	Rs. Crs.
<b>Bulk Supply Cost in FY06</b>	
Power purchase cost	8238.68
Interest on Power purchase cost	253.17
LDC expenses	10.00
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Total bulk supply cost	8501.85
Energy input at IF points in FY06	34717MU
BST for FY06	244.89 paise per unit

2. KPTCL has requested the Commission to approve revised BST of 244.89 paise per unit in FY06 from the existing 209.35 paise per unit.
3. Further, KPTCL has sought approval for net transmission expenses of Rs. 678.47 Crs. in FY06 and has requested the Commission to approve the revised transmission charges of 19.54 paise per unit from the existing 18.67 paise per unit.
4. KPTCL has furnished audited Annual Accounts for FY04 along with the ERC and also audited annual accounts for FY05 subsequently. The Commission would consider these audited accounts for analysing the ERCs for FY04 and FY05.

### 3.2 Validation of the Filings

The Commission took up validation of the ERC of KPTCL for FY05 & FY06 and tariff filing and sought additional details/ clarification on various issues from KPTCL. Details of the letters addressed by the Commission and replies provided by KPTCL are given below:

**Table-3.1**

<b>Commission's letter No &amp; Date</b>	<b>Details/ clarification sought in the matter of</b>
B/12/3/2003 dated 16.12.2004	Clarification on pendency of appeal filed by KPTCL in Hon'ble High Court
B/05/04/080 dated 19.01.2005	Directed KPTCL/ESCOMs to file ERC for FY 06 latest by 31.01.2005 in a complete manner
S/01/1/217 dated 11.02.2005	Requested to expedite forwardal of VVNL hydel PPAs
B/12/3/2003 dated 17.22.2005	ERC for FY05 filed on 10.12.04 returned since KPTCL did not furnish reply to Commission's letter dated 01.12.2004.
B/05/04 dated 28.02.2005	KPTCL informed to publish summary of the petitions in News papers before 10.3.05
B/05/04 dated 07.03.2005	Preliminary observations on the ERC for FY05 regarding
B/05/4 dated 28.03.2005	KPTCL has not furnished compliance to observations made in letter-dated 7.3.05. The Commission is unable to validate ERC for FY06.
B/05/4/465 dated 04.04.2005	Amended ERC for FY06 filed by KPTCL returned - Reminder on compliance to observations.
B/05/04/350 dated 07.03.2005	Preliminary observations of ERC for FY06 in the matter of ARR, Annual Accounts, power purchase quantity, compliance to directives, capital investment plan, etc
B/04/04/577 dated 20.04.2005	KPTCL was informed to publish the summary of the petitions of the ERC and tariff filing in newspapers before 30.4.05
B/05/04/682 dated 10.05.2005	Requested to provide details of actual revenue and expenditure for FY 05 and details of capacity of NCE sources
B/05/04 dated 03.06.2005	Requested to provide details of power purchase for FY05 & FY06, actual revenue and expenses for FY05, capacity of NCE sources
B/05/04/809 dated 03.06.2005	Reminder to provide power purchase details before 10.6.05.

<b>Commission's letter No &amp; Date</b>	<b>Details/ clarification sought in the matter of</b>
B/05/04/II/887 dated 15.06.2005	(i) Grants extension of time to provide details of actual revenue and expenses up to 24.6.05. (ii) ERCs of KPTCL & ESCOMs to be recast in view of GO dated 10.5.05 since KPTCL cannot engage in trading in power from 10.6.05. (iii) Copies of power purchase details for April & May 05 to be provided (iv) Validation meeting scheduled for 29.06.2005.
B/05/04/II/930 dated 27.06.2005	Meeting schedule on 29.6.05 postponed at the request of KPTCL. The time limit for issue of orders on the ERCs by the Commission would also get postponed correspondingly.
B/05/04/II dated 12.07.2005	DO reminder on break-up details on power purchase up to 9.6.05 and for the period thereafter
B/05/04 /1181 dated 11.08.2005	Requests ESCOM wise subsidy allocation for FY 03, 04 and 05
B/05/04/190 dated 16.08.2005	Requests revised generation forecast for FY 06, considering actual reservoir level as on 15.8.05
B/05/04/ FAX dated 23.08.2005	Requests revised generation forecast for FY 06 considering actual inflow into reservoirs to the end of August 05. Details to be furnished latest by 05.09.2005
S/01/1FAX dated 31.08.2005	Clarifications sought regarding cost of power purchase from CGS being higher
B/05/04/ Vol II/1263 dated 08.09.2005	Commission is unable to extend time to furnish details of revised generation forecast for FY 06. Commission will proceed to issue the Tariff Order on the basis of available information

**Table-3.2**

<b>KPTCL's letter No &amp; Date</b>	<b>Details/Reply provided</b>
B-36/6580 ERC FY 06/F/2004-05/625-30 dated 28.12.2004	KPTCL & ESCOMs request to extend the time for filing the ERC by another one month
-do- 704-11 dated 28.01.2005	KPTCL & ESCOMs request further extension of time by 15 days to file ERC for FY 06
-do- 754-83 dated 15.02.2005	KPTCL ERC for FY 06 and capital investment programme along with audited annual accounts for FY 04 filed.
" 807 dated 17.02.2005	Requests extension of time up to 10.3.05 to file ERC of ESCOMs for FY05 & FY06
B-36:6580:F:2004-05:823-27 dated 21.02.2005	KPTCL requests the Commission to pass orders on the ERC for FY05 subject to the orders of

KPTCL's letter No & Date	Details/Reply provided
	the Hon'ble High Court
" 836-41 dated 26.02.2005	Resubmits ERC of KPTCL for FY05
" 830-835 dated 09.03.2005	Seeks 10 days time for publishing revised ERC for FY05 & FY06
" 982-88 dated 28.03.2005	Files amendment to ERC for FY06
" 12-18 dated 12.04.2005	Replies to the observations
" 19-20 dated 12.04.2005	Resubmits amendment to ERC for FY06
" 68 dated 02.05.2005	Paper cuttings of publication of ERC for FY 05 & FY 06 in newspapers.
" 7980 dated 04.05.2005	Details of subsidy claimed and released by GoK for FY 04 and FY 05
" 2262 dated 10.06.2005	Requests extension of time for furnishing details of power purchase for FY05.
" 255-56 dated 21.06.2005	Working details of power purchase for FY06 and NCE capacity in MW
" 274 dated 24.06.2005	Actual numbers for FY05 may be different from ERC after audit (ii) there is a surplus of Rs.596.01 Crs. in FY05 as per accounts (iii) Requests postponement of meeting scheduled on 29.06.2005 (iv) Seeks one month time to file post separation details of power purchase.
KPTCL/B-28/3232/04-05 dated 13.07.2005	Details of assignment of PPAs to ESCOMs
KPTCL/PPQ&C Split/373-80 dated 21.07.2005	Provided details of segregation of power purchase quantity and cost up to 10.6.05 and for the period there after
" 386 -88 dated 26.07.2005	Copies of power purchase bills of April and May 05 provided, further details of power purchase provided.
" 515 dated 25.08.2005	Subsidy allocation details for FY 03, 04 & 05
" 551 dated 08.09.2005	KPTCL requests extension of time by one week for filing revised energy projection for FY 06 and to provide other details
KPTCL/b-36/6580/F/2005-06/554 dated 12.09.2005	Request for allowing fixed cost of Tanirbavi project, interest on power purchase dues, provides details of subsidy due from GoK and request to treat it as regulatory asset and request to approve tariff increase as sought by KPTCL/ESCOMs
-do - 555 dated 12.09.2005	Copy of letter addressed to Energy Department on release of past subsidy and

KPTCL's letter No & Date	Details/Reply provided
	other dues
-do- 560 dated 12.09.2005	Revised generation forecast for FY06 and related issues

### 3.3 Compliance to Directives

1. The Commission has issued various directives to KPTCL in all the previous tariff orders. The directives are continuing in nature and their compliance is being monitored by the Commission regularly. A summary of the directives issued and status of its compliance as reported by KPTCL in the ERC for FY06 is provided in **Annexe-3**.
2. The directives already issued will form part of the present Order as the directives are continuing in nature. As already indicated by the Commission, compliance to directives is a pre-requisite for allowing any future tariff increase. Now that KPTCL is an exclusive transmission company, devoid of all other functions, it should be possible for KPTCL to concentrate on the transmission activity and implement the directives fully.

### 3.4 Objections

1. As indicated earlier, only 7 objections have been received on the ERC of KPTCL for FY05 & FY06 and tariff filing. A few objectors have objected to increase in the BST and transmission charges proposed by KPTCL. They have also sought justification for the capital investment proposed Vs loss reduction and pointed out abnormal increase in administrative expenses proposed in the ERCs. Some objectors have also stated that the issues already settled by the Commission like additional fixed cost of Tanirbavi company, interest on power purchase dues, bonus and free lighting to employees etc have been included in the present ERC by KPTCL and the objectors have urged not to allow such expenses as already decided by the Commission in

the earlier orders. A few objectors have also stated that the energy input estimates for FY06 are on the higher side.

2. KPTCL has responded stating that the power purchase cost and operational costs are increasing and hence annual revenue requirement of the KPTCL is also increasing and in order to meet the increased revenue requirement, KPTCL has proposed enhancement in the BST and transmission charges. They have stated that the estimated quantity of power purchase has been reduced from 36488 MU to 35325 MU. With regard to capital investment, KPTCL has explained the various issues involved in undertaking a project and that there is no empirical formula to relate capital investment with the reduction in losses. While agreeing that there is increase in administrative expenses KPTCL have stated that the increase is due to creation of new companies and that the expenses are reasonable.
3. The Commission has carefully examined the objections and responses of KPTCL thereto and the same are discussed in the appropriate sections of this Order. A summary of the objections and response of KPTCL is placed at **Annexe-2**.

### **3.5 Commission's Analysis of ERC/Tariff Filing**

#### **3.5.1 Revenue gap for FY03**

KPTCL has sought to include in the ERC for FY05, revenue gap of Rs. 112.43 Crs. for FY03 plus additional power purchase cost of Tanir Bhavi Power Company for FY02 amounting to Rs.109 Crs. The Commission has elaborately discussed these issues in the Tariff Order 2003/ Tariff Amendment Order dated 15.12.2003 and has given its findings in those orders. Regarding revenue gap of Rs.112.43 Crs. claimed by KPTCL for FY03, the Commission notes that there is no revenue gap even according to the certified annual accounts of KPTCL for FY03 and on the other hand, there is a revenue surplus of Rs.49.45 Crs. after accounting for revenue

subsidies and grants to the extent of Rs.570.22 Crs. Regarding additional power purchase cost of Tanirbavi project claimed by KPTCL, the Commission notes that KPTCL has appealed to the Hon'ble High Court of Karnataka on the earlier tariff orders regarding disallowances of certain expenses including additional fixed cost of Tanirbavi project and the matter is pending before the Court. The Commission reiterates its observations made in the earlier tariff orders on this issue.

### 3.5.2 Financial Year 2004 in Retrospect

1. The Commission had approved the ERC of KPTCL for FY04 in the Tariff Order dated 10.03.2003. Subsequently, considering the application of KPTCL for amendment of tariff arising out of additional power purchase cost due to change in Hydro-Thermal mix, the Commission issued a Tariff Amendment Order on 15.12.2003 approving additional power purchase cost of Rs.444 Crs. for FY04. In the Tariff Amendment Order, the Commission also approved to revise the BST from 193.57 paise per unit to 209.35 paise per unit for supply of electricity to ESCOMs /Hukeri Society. The revised BST came into effect from 01.01.2004.
2. KPTCL has furnished the audited annual accounts for FY04. There are substantial differences between the approved ERC figures for FY04 and the actuals as per accounts as indicated below:

#### 3.5.2.1 Power Purchase Cost

**Table-3.3**

**Details of power purchase approved by the Commission for FY04 and actuals as incurred by KPTCL**

Source	As approved by KERC			Actual incurred by KPTCL		
	Energy (MU)	Amount (Rs.Crs.)	Avg Rate (Ps/unit)	Energy (MU)	Amount (Rs.Crs.)	Avg Rate (Ps/unit)
KPC-Hydro	9337	507.56	54.36	6894	326.56	47.37
KPC- Thermal	10330	2157.60	208.87	10415	2137.49	205.23



Source	As approved by KERC			Actual incurred by KPTCL		
	Energy (MU)	Amount (Rs.Crs.)	Avg Rate (Ps/unit)	Energy (MU)	Amount (Rs.Crs.)	Avg Rate (Ps/unit)
Central projects	7076	1673.07	236.44	10213	2151.20	210.63
Neighbouring States	304	59.05	194.24	0	0	0
Private generating companies	1368	627.71	458.85	1924	892.65	464.03
Co-Generation	411	143.46	349.05	1034	343.24	331.95
Wind KPCL	10	3.63	349.05	15	5.22	348.00
VVNL	1080	265.96	246.26	708	169.54	240.00
TB Dam	30	1.0	33.33	7	0	0
Additional Power Purchase cost allowed in Tariff Amendment Order Dec-2003		444.00				
<b>Total</b>	<b>29946</b>	<b>5883.04</b>	<b>196.45</b>	<b>31210</b>	<b>6025.90</b>	<b>193.08</b>

1. The Commission had approved power purchase quantity of 29946 MU for FY04 and the actual power purchase is 31210 MU indicating an increase of 1264 MU. The power purchase cost has increased by Rs.143 Crs. mainly for the following reasons:

- i) Increase of 1264 MU in the input energy.
- ii) Change in hydro-thermal mix. There is a reduction in KPCL hydro generation by 2443 MU and VVNL generation by 372 MU resulting in combined reduction of 2815 MU with reduction in power purchase cost by Rs.277 Crs. This reduction in generation is met by additional purchase from CGS resulting in an additional cost by Rs.478 Crs. than the approved cost for CGS.

- iii) Purchase from NCE sources has increased by 623 MU at an additional cost of Rs.200 Crs. The reasons for this wide variation has not been explained by KPTCL.
- iv) The generation from private generators has increased by 556 MU at an additional cost of Rs. 265 Crs.
- v) In respect of Tanir Bavi project, the fixed charges included by KPTCL in the above actual power purchase cost is Rs.309.36 Crs. The Commission has not allowed fixed charges to the extent of 1.946 cents per unit to be passed on to the consumers through tariff for the reasons indicated in Tariff Order 2002/ Tariff Order 2003 and Tariff Amendment order dated 15.12.2003. After excluding the fixed charges at the rate of 1.946 cents per unit, the allowable fixed charges in respect of Tanir Bavi Company in FY04 works out to Rs.165.44 Crs. and the difference amount not allowable works out to Rs.143.92 Crs.
- vi) In respect of power purchase from JTPCL, KPTCL has stated in the ERC filing that it is adopting the rate of Rs.2.48 per unit upto 657 MU and Rs.1.98 per unit beyond 657 MU as per the orders of the Hon'ble High Court of Karnataka and the Hon'ble Commission. The Commission pointed out during validation that since the orders of the Commission on the PPA of JTPCL has been set aside by the Hon'ble High Court of Karnataka and that the Hon'ble Supreme Court of India has not yet granted any stay to the order of the Hon'ble High Court in the SLP filed by KERC/KPTCL before the Hon'ble Supreme Court, the rates as per the orders of the Hon'ble High Court shall be adopted. KPTCL has clarified vide its letter dated 12.04.2005 that the additional liability consequent to orders of the Hon'ble High Court is reflected in the power

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purchase cost statement. The Commission notes that KPTCL has included the difference amount in the ERC for FY06.

2. The approved expenditure of Rs.5883.04 Crs. indicated in the table above includes additional power purchase cost of Rs.444 Crs. approved by the Commission in the Tariff Amendment Order dated 15.12.2003 due to change in hydro-thermal mix in FY04. While approving this amount of Rs.444 Crs. the Commission has clearly indicated that the actual requirement of funds for power purchase may be substantially less going by past performance and therefore additional requirement of funds approved is subject to actuals at the end of the year and further subject to efficiency norms and other parameters as set out in the earlier Tariff Orders. Further, while revising the retail consumer tariff in the said Amendment Order dated 15.12.2003, it is indicated that increase in tariff consequent to amendment is estimated to fetch additional revenue of Rs.41 Crs. assuming that the revised tariff will be effective for a period of 3 months in FY04 and that the Commission approves to carry forward the balance amount of Rs.403 Crs. (Additional power purchase cost of Rs.444 Crs. approved on account of change in hydro-thermal mix minus expected tariff realisation of Rs.41 Crs. in FY04) to the next tariff filing.
3. After excluding the additional fixed charges of Rs.143.92 Crs. in respect of Tanir Bavi Project for the reasons discussed earlier, the actual power purchase cost for FY04 works out to Rs.5881.98 Crs. (Actual expenses of Rs.6025.90 Crs. minus Rs.143.92 Crs. as against the approved expenditure of Rs. 5883.04 Crs.

### **3.5.2.2 Transmission Expenses**

**Table-3.4**

**Details of Transmission Expenses approved by the Commission for FY04 and actuals as incurred by KPTCL**

<b>Expenditure</b>	<b>Approved by KERC</b>	<b>Actuals</b>	<b>Difference</b>
Repairs and Maintenance	16.18	15.94	-0.24
Employee Costs	123.05	136.63	13.58
Admin and General Expenses	24.50	32.63	8.13
Depreciation	185.11	173.25	-11.86
Interest & Finance charges	244.69	324.42	79.73
LESS:			
Expenses capitalised	(52.46)	(59.54)	(7.08)
Other Debits	4.93	0.97	-3.96
Net Prior Period Credits	(15.60)	(46.45)	(30.85)
Return on NFA	42.72	52.39	9.67
Total Expenses	573.12	630.24	57.12
Less Other income	40.55	117.20	76.65
Provision for taxation	-	7.38	7.38
<b>Total Revenue requirement</b>	<b>532.57</b>	<b>520.42</b>	<b>-12.15</b>

(-) Savings, + extra

1. The Commission had approved transmission expenses of Rs.532.57 Crs. for FY04 in its Tariff Order 2003. As against this, the actual expenditure as per the annual accounts of KPTCL is Rs.520.42 Crs. indicating a reduction of Rs.12.15 Crs. The Commission observes that the expenses have increased mainly in respect of interest and finance charges to an extent of Rs.79.73 Crs. employee cost by Rs.13.58 Crs. and in respect of administration and general expenses by Rs.8.13 Crs. and provision for income tax has been made for Rs.7.38 crs. At the same time, other income has increased from Rs.40.55 Crs. considered in the ERC to Rs.117.20 Crs. as per certified accounts, resulting in an increased income of Rs.76.65 Crs.
2. The Commission further observes that the following expenses have not been allowed by the Commission for passing through in the tariff to the consumers in FY04 as indicated in the earlier Tariff Orders:
  - i. Free/subsidised electricity to employees- Rs. 0.39 Crs.
  - ii. Bonus to Employees – Rs.1.69 Crs.
  - iii. Interest on power purchase dues: Rs.120 Crs.

3. It is seen from the annual accounts of KPTCL for FY04, that the interest liability on power purchase dues provided for amounts to Rs.45.72 Crs. and bonus to employees Rs.1.47 Crs. Details of cost of Free/subsidised electricity to employees is not being separately indicated in the accounts. Thus the total amount not allowable for pass through to the consumers amounts to Rs.47.58 Crs. (considering cost of free lighting as Rs.0.39 Crs. as estimated in the Tariff Order 2003). The allowable transmission expenses are as follows:

	Rs Crs.
Total transmission expenses as per actuals	520.42
Less: Deductions as above	47.58
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Net transmission expenses	472.84

4. Thus the net allowable transmission expenditure is Rs.472.84 Crs. as per actuals as against the approved expenditure of Rs.532.57 Crs. resulting in savings of Rs.59.73 Crs.
5. Audited accounts of KPTCL has been considered by the Commission which includes LDC expenses. Hence LDC expenses allocation to power purchase cost is not being considered separately. Similarly, other income which includes income relating to both bulk purchase activity as well as transmission services is not allocated to bulk supply cost separately, since total expenses and total recovery of BST and transmission charges for the year have been considered for the purpose of review.
6. The Commission has already indicated vide para 15.9 of the Tariff Amendment Order 2003 that it will consider variation only in respect of uncontrollable expenses for truing up at the end of the year. Since KPTCL has not come out with details of uncontrollable expenses in transmission expenses the Commission does not consider variation between the approved transmission expenses and actuals for any true up at the end of the year for FY04.

### 3.5.2.3 Review of Capital Investment Program

1. In the Tariff Order 2003, the Capital outlay approved for FY04 was Rs. 296.30 Crs. as against the proposed outlay of Rs.323.00 Crs. KPTCL submitted detailed scheme-wise programme of works under the capital investment programme during FY04 and the same was approved by the Commission.
2. Details of actual achievement of KPTCL under the Capital Investment Programme during FY 04 is furnished in the following Table:

#### (a) New Stations Commissioned

**Table-3.5**

Sl. No.	Voltage	Annual Target		Progress Achieved			
		Nos.	MVA	Nos.	% Achievement	MVA	% Achievement
1	400 KV	1	630.00	1	100%	630.00	100%
2	220 KV	5	900.00	7	140%	1012.50	112%
3	110 KV	17	430.00	17	100%	295.00	69%
4	66 KV	21	399.10	13	62%	266.40	67%
	Total	44	2359.10	38	86%	2203.90	93%

#### (b) Augmentation of Stations

**Table-3.6**

Sl. No.	Voltage	Annual Target		Progress Achieved			
		Nos.	MVA	Nos.	% Achievement	MVA	% Achievement
1	400 KV	1	500.0	1	100%	500.00	100%
2	220 KV	1	100.0	-	0%	-	0%
3	110 KV	33	390.0	18	55%	190.00	49%
4	66 KV	60	550.60	28	47%	205.40	37%

	Total	95	1540.60	47	49%	895.40	58%
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**(c) Transmission lines Commissioned****Table-3.7**

Sl. No.	Voltage	Annual Target		Progress Achieved			
		Nos.	CKMs	Nos.	% Achievement	CKMs	% Achievement
1	400 KV	2	2.00	1	50%	0.50	25%
2	220 KV	11	952.32	9	82%	446.05	47%
3	110 KV	20	600.73	19	95%	361.63	60%
4	66 KV	25	359.34	26	104%	427.50	119%
	Total	58	1914.39	55	95%	1235.68	65%

3. The Commission notes that there is good progress in respect of commissioning of new sub-stations, as the progress is around 90%. However, in respect of augmentation of sub-stations and construction of transmission lines, the progress is in the order of around 60%. It is however noted that the actual capital expenditure incurred in FY04 is Rs.404.92 Crs. as per audited accounts, against the investment programme of Rs.296.30 Crs. approved by the Commission. KPTCL has not furnished any reasons for exceeding the programme by Rs. 108.62 Crs. While the Commission appreciates KPTCL for achieving satisfactory progress in the capital expenditure programme in FY04, the Commission also observes that KPTCL should have sought prior approval of the Commission for the revised programme before incurring the expenditure. Since the extra expenditure of Rs.108.62 Crs. has been incurred by KPTCL without authorisation by the Commission, the Commission decides not to allow interest on this extra expenditure at the average interest rate of 10% per annum for 3 months in the ERC of FY05. Accordingly, an amount of Rs. 2.72 Crs. shall be deducted from interest charges in FY05.



### 3.5.2.4 Energy Input at interface points

**Table-3.8**

**Details of Energy input at interface points for FY04 as approved by the Commission and actuals**

Particulars	Approved by KERC	Actuals	Difference
Total energy input	29946	31210	1264
Transmission loss	1797	1519	-278
MUSS consumption	12	15	
Net energy available	28137	29676	1539
<b>Energy input at interface points</b>			
BESCOM	12823	13739	916
MESCOM	5635	5697	62
HESCOM	5683	5889	206
GESCOM	3858	4211	353
Hukeri Society	138	140	02
Total input at interface points	28137	29676	1539

### 3.5.2.5 Transmission Loss

As indicated in the above Table, the approved energy input for FY04 was 29946 MU and energy input at interface points of ESCOMs was 28317 MU after allowing a transmission loss of 6%. As per the present ERC filing of KPTCL, the actual input in FY04 was 31210 MU and input at interface points was 29676 MU and the actual transmission loss in FY04 was 4.87 %. The Commission notes that KPTCL has been able to bring down the transmission loss because of commissioning of new lines and stations apart from better administrative measures. The Commission appreciates the efforts of KPTCL in bringing down the transmission loss.

### 3.5.2.6 Bulk Supply Tariff and Transmission charges for FY04

1. BST approved by the Commission in the Tariff Order 2003 which came into effect from 01.04.2003 was 193.57 paise per unit and the rate was revised to 209.35 paise in the Tariff Amendment Order dated 15.12.2003 which came into effect from 01.01.2004. The transmission

charges approved by the Commission for FY04 was 18.67 paise per unit.

2. Details of power purchase cost and transmission cost allowable for FY04 and amount of BST & Transmission charges recovered by KPTCL is indicated below:

**Table-3-9**  
**Allowable Costs for FY04**

Particulars	Amount Rs.Crs.
Total expenditure as per actuals (including power purchase cost)	6546.32
Amount disallowed by Commission	191.50
Allowable expenditure	6354.82
Actual revenue earned from sale of power (includes BST, Transmission Charges & Wheeling charges)	6448.79
Revenue Surplus	93.97

3. The Commission notes that KPTCL has already recovered the power purchase cost & transmission charges allowed by the Commission for FY04 in full and there is a surplus of Rs.93.97 Crs. even without considering the other income of Rs.117.20 Crs. Therefore, the question of any carry over of deficit for FY04 to next ERC, as sought by KPTCL, does not arise.

### **3.5.3 Analysis of ERC for FY05**

#### **3.5.3.1 Power purchase cost**

- a) The following table indicates the power purchase cost of KPTCL as per the revised ERC filing for FY05 filed in December 2004 and the figures as per the actuals as indicated in the audited accounts for FY05:

**Table-3.10**  
**Power Purchase Cost for FY05**

Source	As per Revised ERC for FY05			As per audited accounts for FY05		
	Energy MU	Amount Rs. Crs.	Avg. Rate PS/unit	Energy MU	Amount Rs. Crs.	Avg. Rate PS/unit
KPC-Hydro	9387.42	467.12	49.76	8138.36	425.28	52.26
KPC- Thermal	9687.10	1984.73	204.88	9799.11	2203.55	224.87
CGS	9818.20	1963.82	200.82	11446.40	1906.75	166.58
Neighbouring States	0	0	0	0	0.54	
Private Generating Stations	1182.59	741.27	626.82	1404.06	849.69	605.16
NCE	2284.03	736.26	322.35	1511.40	476.45	315.24
VVNL Hydro	408.43	75.92	185.88	521.09	26.56	50.97
VVNL- Diesel	444.10	136.35	307.03	261.96	132.31	505.06
TB Dam	30.09	0.05	1.66	28.01	0	
Additional power purchase liability due to Court order		140.25				
Total	33241.96	6245.78	187.89	33110.41	6021.13	181.85
LDC Charges		9.50				
Interest on PPC		189.77			196.83	
Grand Total	33241.96	6445.05	193.88	33110.14	6217.96	187.80

b) The BST filed by KPTCL as per the ERC filings and the actuals as per certified accounts are indicated below:

**Table-3.11**  
**Bulk Supply Tariff as per the Revised Estimates for FY05**

Details	As per FY05 ERC filings	As per audited accounts for FY05
Total power purchase (MU)	33242	33110
Power available at interface points (MU)	31626	31626
Total power purchase cost	6445.05	6217.96

Details	As per FY05 ERC filings	As per audited accounts for FY05
including interest on PPC (Rs crs)		
Bulk Supply Tariff (paise/kWh)	203.79	196.61
Combined BST (paise/kWh)	214.27	

### 3.5.3.2 Power purchase quantity

KPTCL in their revised ERC filing had estimated total power purchase quantity of 33242 MU from various sources for FY05. As against this, the actual power purchase for FY05 as per KPTCL is 33110 MU. Thus, there is a reduction of 132 MU in the actual power purchase. The Commission approves the actual power purchase of 33110 MU for FY05.

### 3.5.3.3 Power Purchase Cost

1. As discussed in the earlier tariff orders, KERC Order dated 25.7.2002 on the PPA between KPTCL and KPCL in respect of RTPS units has been challenged in the High Court by KPCL, and the Hon'ble High Court have directed KERC and KPTCL not to take any coercive steps based on the KERC Order. KPTCL has stated that it has estimated the power purchase cost based on the rates specified in the earlier GoK Orders and draft PPA in respect of RTPS unit 5, 6 and 7. The Commission accepts the rates adopted by KPTCL, subject to final orders of the Hon'ble High Court.
2. KPTCL has estimated the Power Purchase cost of KPCL hydro stations based on the respective Government Orders. The KERC order dated 10.04.2003 on the PPA of KPCL hydro stations has been challenged by KPCL in the Hon'ble High Court of Karnataka. In the absence of any stay on the Commission's order, KPTCL was directed to consider the rates as approved by the Commission. However, KPTCL has stated that it has projected the power purchase cost as per the rates approved by GoK, even though the High Court has not stayed the KERC order

but has directed the parties not to take any coercive steps till the matter is finally disposed off by the court. The Commission notes that there is no interim order issued by the Hon'ble High Court in this case and the interim order issued by the Hon'ble High Court was only in respect of RTPS case. However, the Commission accepts the power purchase cost as per KPTCL's audited accounts for FY05, subject to final orders of the Hon'ble High Court.

3. Similarly, in the case of Yelahanka Diesel Plant of VVNL, the order of the Commission dated 10.10.2003 on the PPA between VVNL and KPTCL has been challenged by VVNL in the High Court of Karnataka. KPTCL has requested to adopt the power purchase cost as proposed by them in the ERC subject to outcome of the decision of the Hon'ble High Court. The Commission accepts the proposal of KPTCL.
4. Regarding the assessment of Power Purchase cost of CGS, the Commission had sought clarification as to whether the tariffs of CGS have been worked out based on the revised CERC norms applicable w.e.f 01.04.2004. KPTCL has clarified that the rates are based on the norms prevailing prior to revision of CERC norms duly providing for escalation in cost. The Commission notes that CERC has already notified improved norms for CGS w.e.f. 01.04.2004 and that KPTCL shall pursue the matter for revision of tariff of CGS. While the Commission accepts the power purchase cost of CGS as per accounts, the same shall be subject to revision by CERC.
5. The fixed charges in respect of Tanir Bavi project, included by KPTCL in the above actual power purchase cost is Rs.309.04 Crs. The Commission has not allowed fixed charges to the extent of 1.946 cents per unit to be passed on to the consumers through tariff for the reasons indicated in the Tariff Order 2002/ Tariff Order 2003 and the Tariff Amendment order dated 15.12.2003. As discussed earlier, KPTCL has filed an appeal in the Hon'ble High Court of Karnataka on the

earlier tariff orders issued by the Commission which includes disallowances made by the Commission in respect of Tanirbavi project and that the matter is pending in the Court. The Commission reiterates its observations made in the earlier tariff orders. After excluding the fixed charges at the rate of 1.946 cents per unit, the fixed charges in respect of Tanir Bavi Company in FY05 works out to Rs.164.99 Crs. as per the information provided by KPTCL. The difference amount not allowable works out to Rs.144.05 Crs.

6. In respect of power purchase from JTPCL, KPTCL has adopted a rate of 273.42 paise per unit upto 657 MU and 217.76 paise per unit beyond 657 MU for the period from August 04 to March 05 i.e with an escalation of 5% over the tariff of the corresponding period of the previous year. As discussed earlier, the Commission pointed out during validation that since the orders of the Commission on the PPA of JTPCL has been set aside by the Hon'ble High Court of Karnataka and that the Hon'ble Supreme Court of India has not yet granted any stay to the order of the Hon'ble High Court in the SLP filed by KERC/KPTCL before the Hon'ble Supreme Court, the rates as per the orders of the Hon'ble High Court shall be adopted. KPTCL has clarified vide its letter dated 12.04.2005 that the additional liability consequent to the orders of the Hon'ble High Court is reflected in the power purchase cost statement. It is seen from Form T1 of ERC that a sum of Rs.140.25 Crs. has been shown as additional liability on account of the High Court Order. The Commission notes that this amount of Rs.140.25 Crs. has not been provided in their Annual accounts for the year 2004-05 but it has been disclosed in the Notes to Accounts that no provision to an extent of Rs.103 Crs. towards the amount refundable to JTPCL has been made in the Accounts. Since this liability has arisen on account of the orders of the High Court, the Commission considers it appropriate to include this amount in the power purchase cost for FY05.

7. In respect of power purchases from all the other sources, the Commission considers power purchase cost as per the audited accounts for FY05 furnished by KPTCL.

#### **3.5.3.4 Interest on Power Purchase Liabilities**

1. Interest on power purchase provided by KPTCL in the annual accounts for FY05 is Rs.196.83 Crs. as against Rs.189.77 Crs. proposed in the ERC. The Commission has elaborately discussed in the Tariff Order 2003/ Tariff Amendment Order 2003, the admissibility of interest on power purchase dues in the ERC for pass through in the tariff and had observed that "the mandate for KPTCL and the ESCOMs is to collect their dues fully and to discharge their liabilities in time. For any lapse on the part of the KPTCL and ESCOMs in collecting their dues and settling their liabilities, the consumers, and especially those who pay their dues promptly, cannot be burdened by passing on this amount to the tariff. If such amounts are allowed to be passed on to the consumers, it would create perverse incentives for delaying payments of suppliers bills. Allowing such payments would run counter to the specific mandate to the Commission for promoting efficiency and economy in the sector". The Commission had concluded in the said Order that no interest arising out of delayed payment of dues to power suppliers can be allowed to be passed on in the approved ERC of the KPTCL. The Commission notes that the disallowances made by the Commission for pass through in the tariff including interest on delayed payment of power purchase dues has been questioned by KPTCL in the Hon'ble High Court of Karnataka and the matter is pending in the Court. The Commission decides not to allow interest on power purchase dues for pass through in the tariff in the present order, subject to the decision of the Hon'ble High Court of Karnataka in the pending appeal.

2. On the basis of the above discussions the details of power purchase cost approved by the Commission for FY05 are indicated below:

**Table – 3.12****Details of Power purchase Cost for FY05 as allowed by the Commission**

Rs. Crs	
Particulars	Amount
Actual power purchase cost as per audited accounts including interest on power purchase	6217.96
<b>Less:</b> amounts not allowed by the Commission for pass thorough in ERC	
1. Fixed charges of Tanir bavi (GMR) Company	144.05
2. Interest on power purchases	196.83
Add: Power purchase liability of JTPCL on account of High Court order	103.00
<b>Net Power purchase cost approved by the Commission</b>	<b>5980.08</b>

Details of source wise power purchase as per audited accounts of KPTCL for FY05 and as approved by the Commission are given in **Annexe-5**.

**3.5.3.5 Transmission Expenses**

KPTCL had estimated the transmission expenses for FY05 in the revised ERC for FY05 as Rs.966.41 Crs. However, in the ERC for FY06, the transmission expenses for FY05 has been indicated as Rs.826.94 Crs. Since audited accounts for FY05 have been made available by KPTCL, the Commission considers these audited Accounts as indicated below:

**Table-3.13****Transmission Expenses for FY05**

Rs Crs.		
Particulars	As per Revised ERC filing for FY05	As per Audited Accounts for FY05
Repair and Maintenance	26.65	20.84
Employee Costs	158.12	144.20



Particulars	As per Revised ERC filing for FY05	As per Audited Accounts for FY05
A&G expenses	41.03	34.87
Depreciation	204.86	196.23
Interest & Finance charges	482.36	368.52
Less : Expenses Capitalised	-59.54	-47.66
Other Debits	1.00	0.41
Net prior period charges`	1.00	15.81
Provision for Taxation		8.37
<b>Total Expenditure</b>	<b>855.48</b>	<b>741.58</b>
Returns (14% on Equity plus Reserves)	110.93*	110.93
<b>Total</b>	<b>966.41</b>	<b>852.91</b>

\* As worked out at 14% on Equity plus reserves

#### a) Repairs & Maintenance

The actual expenditure as per the audited accounts is Rs.20.84 Crs. in FY05 as against expenditure of Rs.15.94 Crs. in FY04. Thus the expenses have increased by Rs.4.90 Crs. i.e., by 30.74%. The Commission notes that the main increase is in respect of R & M of lines and cable network by Rs.3.50 Crs. The Commission allows the actual expenses incurred by the KPTCL in that year.

#### b) Employee Cost

1. The actual expenditure incurred in FY05 is Rs.144.20 Crs. as against Rs.136.63 Crs. in the previous year, which amounts to an increase of 5.53%. The Commission in its earlier Tariff Orders, after elaborately discussing the matter, has decided not to allow bonus and cost of free/subsidised supply of electricity to employees for pass through in the ERC/tariff. The Commission has also made it clear that the order of the Commission will not in any way hinder the licensees from fulfilling their contractual obligation to their employees. Accordingly, the bonus amounting to Rs.1.47 Crs. included in the employee cost and cost of free/subsidised power to employees amounting to Rs.0.39 Crs. has not been allowed by the Commission in FY05 (since the cost of

free/subsidised electricity to employees has not been separately provided by KPTCL the same is estimated as in the previous order). The Commission approves the balance expenditure of Rs.142.34 Crs. as per the audited accounts.

2. KPTCL has stated that revision of pay scales to its officers and employees is due from 01.04.2003 and has requested the Commission to allow it as pass through, as and when the same is incurred, stating that it is governed by the terms and conditions of the settlement under the tripartite agreement signed by the KPTCL, the State Government and the Union/Associations. The Commission has elaborately discussed this issue in the Tariff Order 2003 and reiterates the same in this order.

**c) Administration & General Expenses**

The actual expenditure in FY05 as per audited accounts is Rs.34.87 Crs. as against Rs.32.63 Crs. in the previous year, an increase of 6.86%. The Commission allows the actual expenditure.

**d) Depreciation**

As per the audited accounts the actual depreciation for FY05 is Rs. 196.23 Crs. which is stated to be computed as per the rates prescribed by Ministry of Power 1994 Notification. The Commission approves the actual expenditure.

**e) The interest and finance charges**

1. The total amount of interest provided for FY05 is Rs.368.52 Crs. comprising of interest on loans amounting to Rs.171.69 Crs. and interest on power purchase dues of Rs.196.83 Crs. The Commission notes that the loan funds have decreased from Rs.3720.44 Crs. as on 31.3.04 to Rs. 3657.50 Crs. resulting in net decrease in borrowings by Rs.62.94 Crs.

The interest and finance charges on these loans have reduced from Rs.278.70 Crs. in FY04 to Rs.171.69 Crs. in FY05. KPTCL has stated in the ERC filing the reasons for reduction in interest is that the interest on the loans taken over by Government of Karnataka is not included in the ERC for FY05.

2. Further, interest on power purchase dues has increased from Rs.45.72 Crs. in FY04 to Rs.196.83 Crs. in FY05. The Commission notes that power purchase dues to the generating companies have increased from Rs.2558.87 Crs. as on 31.03.2004 to Rs.3072.49 Crs. as on 31.03.2005 i.e by Rs.513.62 Crs. The issue of interest on power purchase dues has been discussed while discussing power purchase cost for FY05.
3. After deducting interest on extra capital expenditure to the extent of Rs. 2.72 Crs. decided under para 3 of Section 3.5.2.3, the Commission allows the balance amount of Rs.168.97 Crs.

**f) Expenses Capitalised**

KPTCL has capitalised interest of Rs.27.89 Crs. and other expenses of Rs.19.77 crores totalling to Rs.47.66 Crs. which is allowed by the Commission.

**g) Other Expenses**

The Commission allows other expenses of Rs.0.41 Crs. incurred by KPTCL in FY05.

**h) Net Prior period Charges**

Provisions for prior period amounts to Rs.15.81 Crs. in the accounts. The Commission notes that prior period expenses are mainly in respect of employee related costs to the extent of Rs.9.03 Crs. depreciation of Rs. 29.84 Crs. and interest and finance charges amounting to Rs.13.58 Crs. The provision includes income relating to the previous year mainly in

respect of excess provision towards depreciation of Rs.21.82. Crs. and other excess provisions of Rs.18.50 Crs. The Commission observes that such excess and short provisions could be avoided if adequate care is taken while preparing the accounts in each year. KPTCL shall endeavour in this regard. The Commission allows the provision made in the year FY05.

**i) Return on Equity/Reasonable Return**

KPTCL has included in their ERC filing, return on equity at 14% amounting to Rs.110.93 crores and have stated that return on investment accounted in the earlier years at 3% on NFA has been changed to 14% RoE as per the new Tariff Regulations of CERC. The Commission had allowed RoR at 3% on NFA in the earlier years, since section 27 of KER Act 1999 stipulated that the provisions of Electricity (Supply) Act 1948 applies in the case of Board or its successor entities for determination of revenue of the licensees and further that, GoK had stipulated 3% RoR in respect of erstwhile KEB. With the enactment of Electricity Act 2003, the Electricity (Supply) Act 1948 has been repealed, save otherwise as provided in EA 2003. The Commission shall specify the terms and conditions of tariff under section 61 of the EA 2003 and in doing so the Commission shall be guided by, amongst others, the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees. Further, as per the draft Tariff Policy dated 16.03.2005 issued by the Ministry of Power, GoI, the rate of return on equity for generation and transmission projects as notified by the Central Commission would be adopted by the SERCs for distribution. In the CERC (Terms and Conditions of Tariff) Regulations 2004, notified by the CERC on 26.03.2004, return on equity has been fixed as 14% per annum for inter-state transmission projects and the debt equity ratio has been fixed at 70:30. It is specified therein that the

amount of equity for the purpose of tariff shall be limited to 30% and where actual equity employed is less than 30%, the actual equity shall be considered. The Commission notes from section 61 of the EA 2003 that the principles and methodologies specified by the CERC and also the National Electricity Policy and Tariff Policy are only guidelines for the State Commissions and the KERC is of the view that the same shall not be mandatorily applicable. Therefore, the Commission is of the view that ROE specified by the CERC for inter-state transmission projects shall not be strictly applicable to state transmission licensees since they are only guidelines for the State Commission under section 61 of the Act. This view has already been communicated by the Commission to the CERC as well as to the GoI while providing comments on the relevant Regulations/ Policy. Further, the Commission has taken the view, while providing its comments, that ROE shall not be more than 12% considering the present low interest regime when long term loans for infrastructure projects are available at an interest rate of 7 to 8 % and the Bank rate (RBI rate) is about 6%. Therefore, in the opinion of the Commission, RoE at not more than 12% may be allowed. However, these aspects will be further examined by the Commission while specifying the terms and conditions for determination of tariff under section 61 of the EA 2003, after the National tariff Policy is notified by the GoI. It is also to be pointed out that the equity investment by GoK in KPTCL is not by fresh investments through cash, but mainly through adjustments. ROE is also being allowed not only on equity but also on Reserves & surplus which are mainly book profits. Considering all these aspects, the Commission decides to allow 12% RoE to KPTCL in the present order pending issue of terms and conditions of tariff by the Commission. Thus, the RoE allowable for FY05 amounts to Rs. 99.74 Crs. on equity plus reserves & surplus at the beginning of the year.

Thus, ROE at 12% works out to Rs.99.74 Crs. in FY05 and is significantly higher by Rs. 37.62 Crs. when compared to ROR of Rs.62.12 Crs. at 3% on NFA.

**j) Provision for Income Tax**

Provision for Income Tax made in the annual accounts of KPTCL for FY05 amounting to Rs.8.37 Crs. is allowed by the Commission.

**k) Other Income**

KPTCL has proposed other income for FY05 as Rs.68.40 Crs. in the ERC. The actual other income as per audited accounts is Rs.211.52 Crs. The Commission considers other income as per the audited accounts for computing transmission charges.

**3.5.3.6 Approved Transmission Expenses**

Details of transmission expenses proposed by KPTCL for FY05 and expenses as approved by the Commission is indicated in the Table below:

**Table-3.14**

**Details of transmission expenses proposed by KPTCL for FY05 and expenses as approved by the Commission**

Particulars	As per Revised ERC filing for FY05	As per Audited Accounts for FY05	As Approved by the Commission
Repair and Maintenance	26.65	20.84	20.84
Employee Costs		144.20	144.20
Less Bonus			-1.47
Cost of free/subsidised electricity to employees			-0.39
Net amount allowed	158.12		142.34
A&G expenses	41.03	34.87	34.87
Depreciation	204.86	196.23	196.23
Interest & Finance charges			368.52
Less Interest on power	482.36		

Particulars	As per Revised ERC filing for FY05	As per Audited Accounts for FY05	As Approved by the Commission
purchase dues			- 196.83
Less Interest on extra capital expenditure in FY04			- 2.72
Net Amount		368.52	168.97
Less : Expenses Capitalised	-59.54	-47.66	-47.66
Other Debits	1.00	0.41	0.41
Net prior period charges``	1.00	15.81	15.81
Provision for Taxation		8.37	8.37
<b>Total Expenditure</b>	<b>855.48</b>	<b>741.58</b>	<b>540.18</b>
ROE (on Equity plus Reserves)	110.93	110.93	99.74
<b>Total</b>	<b>966.41</b>	<b>852.51</b>	<b>639.92</b>
Less: Other Income	(-) 68.40	(-) 211.52	(-) 211.52
<b>Net Transmission Expenses</b>	<b>898.01</b>	<b>640.99</b>	<b>428.40</b>

The Commission notes that other income includes income relating to both bulk purchase activity as well as transmission services, but the same has not been separated by KPTCL in the ERC.

### 3.5.3.7 Review of Investment Programme of KPTCL for FY 05

1. KPTCL had submitted detailed scheme-wise programme of works under the capital investment programme amounting to Rs.910.00 Crs. for FY05. Subsequently, KPTCL revised the Investment Programme for FY05 to Rs.875.00 Crs. Since the revised investment programme was received almost by the end of the financial year, the Commission decided to review the actual expenditure after close of the year.
2. KPTCL submitted DPRs in respect of 16 projects costing more than Rs.5 Crs. under transmission schemes for the approval of the Commission. Out of the 16 DPRs, approval was communicated to 9 DPRs subject to getting the currency renewed. The list of the approved DPRs are furnished in the following Table:

**Table-3.15**  
**Approved DPRs**

Sl. no.	Name of the DPR	Estimated cost in Rs. lakhs	Currency of approval
1.	Establishing 2x 100 MVA 220/66 KV S/S at <b>HAL</b>	2651.76	Up to 5th Dec 2005
2.	Establishing 2x 150 MVA 220/66 KV S/S at ' <b>A</b> ' Station compound	4116.90	Up to 7th November 2005
3	Up-gradation of existing 2x 5 MVA 33/11 KV S/s to 1x 20 MVA 110/33 KV & 1x 10 MVA 110/11 KV sub-station at <b>PH compound in Hubli</b>	1031.36	Up to 11th June 2005
4	Establishing 66 KV sub-station at Madikeri and Up-gradation of existing 33 KV sub-stations to 66 KV sub-stations at <b>Virajpet and Sunticoppa</b>	1816.94	Up to 1st December 2005
5	Construction of 66 KV DC line with Coyote ACSR conductor in the existing corridor of 66 KV SC line with Rabbit ACSR from <b>Chickamagalur S/s to Balehonnur S/s</b>	595.87	Up to 5th July 2005
6	Establishment of 220 KV sub-station at <b>Nittur</b>	1673.39	Up to 17th May 2005
7	Establishment of 2x 20/31.5 MVA S/s at <b>Kadubisuvanahally</b>	1011.74	Up to 12th May 2005
8	Establishment of 150 MVA 220/66/11 KV S/s at <b>NIMHANS</b>	1499.95	5th November 2004
9	Construction of 220 KV associated lines for establishing 220 KV S/s at <b>NIMHANS</b>	6160.82	11th May 2005

The remaining 7 DPRs were returned for the reasons enumerated in the remarks column in the following Table:

**Table-3.16**  
**DPRs Returned**

Sl. no.	Name of the DPR	Estimated cost in Rs. lakhs	Remarks
1	Establishing 1x 50 MVA 220/1110 KV S/S at <b>Sirsi</b>	1301.13	Approval letter from Corporate office for the DPR not furnished



Sl. no.	Name of the DPR	Estimated cost in Rs. lakhs	Remarks
2	Construction of 66 KV DC line with Coyote ACSR conductor from <b>Bhadra Power House to Chikkamagalur via Lingadahalli</b> in the existing corridor of 66 KV line	730.31	Approval letter from Corporate office for the DPR not furnished
3	Construction of 66 KV MC line from <b>220/66 KV Receiving station at Kolar to Tamaka tap point &amp; 66 KV DC line from Tamaka Tap point to Mulbagal to link Thyalur and Nangli lines</b> with Coyote ACSR conductor.	480.72	Approval letter from Corporate office for the DPR not furnished
4	Establishing 2x 100 MVA 220/66 KV S/S <b>at Yachanahalli (C.R.Patna)</b>	2445.68	Approval letter from Corporate office for the DPR not furnished
5	Establishment Of 2x100 MVA 220/110 KV 220 KV S/s <b>at Puttur</b>	3616.41	Approval letter from Corporate office for the DPR not furnished
6	<b>Construction of 110 KV DC line with Lynx ACSR conductor from 220 KV station at Kemar to 110 KV station at Manipal</b>	746.40	DPR has not been signed by the concerned officer. There is difference between the DPR cost approved by corporate office which is Rs. 743.65 lakhs and that of the DPR cost which is forwarded to KERC, which is Rs. 746.40 lakhs
7	<b>Construction of DC line from FTS to Machenahalli limits</b>	696.11	The Corporate office by its corrigendum letter dated 22.11.2005 has revised the DPR amount from Rs. 696.11 lakhs to Rs. 658.21 lakhs. However KPTCL has forwarded DPR with the original amount of Rs. 696.11 lakhs for approval of the Commission without revising

Details of actual achievement of KPTCL under the Capital Investment Programme during FY05 is furnished in the following Tables:

**(a) New Stations Commissioned:-****Table-3.17**

Sl. No.	Voltage	Annual Target		Progress Achieved			
		Nos.	MVA	Nos.	% Achievement	MVA	% Achievement
1	400 KV	-	-	-	-	-	-
2	220 KV	2	400.00	1	50%	230.00	58%
3	110 KV	30	750.00	16	53%	430.00	57%
4	66 KV	27	455.70	14	52%	227.00	50%
	Total	59	1605.70	31	53%	887.00	55%

**(b) Augmentation of Stations****Table-3.18**

Sl. No.	Voltage	Annual Target		Progress Achieved			
		Nos.	MVA	Nos.	% Achievement	MVA	% Achievement
1	400 KV	1	500.0	-	0%	00.00	0%
2	220 KV	1	100.0	1	100%	100.00	100%
3	110 KV	25	270.0	22	88%	240.00	89%
4	66 KV	41	354.50	44	107%	403.50	114%
	Total	68	1224.50	67	99%	743.50	61%

**(c) Transmission lines Commissioned****Table-3.19**

Sl. No.	Voltage	Annual Target		Progress Achieved			
		Nos.	CKMs	Nos.	% Achievement	CKMs	% Achievement
1	400 KV	1	1.00	1	100%	1.00	100%
2	220 KV	6	227.00	3	50%	69.32	31%
3	110 KV	25	355.37	17	68%	289.53	81%
4	66 KV	29	385.98	18	62%	276.52	72%
	Total	61	969.35	39	64%	636.37	66%

List of some of the Important works completed during FY05 under Transmission Scheme as reported by KPTCL is furnished in the following Table:

**Table-3.20**

Sl. No.	Name of the work/scheme	District	Estimated cost in Rs. Lakhs	Expenditure incurred up to the end of 31.03.2005	Date of Commission
1	LILO of 220 KV <b>Shimoga-Bangalore B4 line to Hassan</b> 220 KV S/s	Hassan	758.87	801.44	07.05.2004
2	110 KV sub-station at <b>Muddebihal</b> & associated transmission line	Bijapur	536.94	494.10	Transmission line on 26.08.2003 Substation on 28.06.2004
3	Upgrading of existing 33 KV sub-station to 110 KV at <b>Lokapura</b>	Bagalkot	697.87	1028.69	01.09.2004
4	Upgrading of existing 33 KV sub-station to 110 KV at <b>Todalbagi</b>	Bagalkot	624.10	752.55	23.09.2004
5	<b>Bailahongal</b> 110 KV sub-station ( <b>Nesaragi/Sampagaon</b> ) with associated lines	Belgaum	698.86	651.26	Transmission line on 05.02.2003 Sub-Station on 14.07.2004
6	66 KV Sub-station <b>Mattikere</b>	Bangalore Urban	646.00	357.12	27.09.2004
7	110 KV sub-station at <b>Muthinakoppa</b>	Chikkamagalur	859.53	326.52	29.07.2004
8	66 KV Sub-station at <b>Anekal</b>	Bangalore Rural	526.2	608.49	28.05.2004
9	Upgrading of existing 33 KV sub-station to 110 KV at <b>Kaladagi</b>	Bagalkot	848.18	577.37	Transmission line on 28.10.2004 and substation on 03.11.2004
10	Upgrading of existing 33 KV sub-station to 110 KV at <b>Bellahatti</b>	Gadag	681.15	537.48	27.12.2004
11	Upgrading of existing 33 KV sub-station to 110 KV at <b>Sankeshwar</b> with associated lines	Belgaum	613.61	397.82	Transmission line on 02.11.2004 Sub-station on 31.10.2004
12	110 KV sub-station at <b>Hebsikote</b> with associated lines	Bidar	508.40	440.31	26.11.2004
13	110 KV sub-station at <b>Santhapur</b> with associated lines	Bidar	533.70	686.20	15.12.2004
14	110 KV sub-station at <b>Konkal</b> with associated lines	Gulbarga	503.00	754.12	Transmission line on 19.1.2004 Sub-station on 22.11.2004
15	220 KV sub-station at <b>Chintamani</b> with associated	Kolar	3140.00	2875.58	Transmission line on 18.12.2002

Sl. No.	Name of the work/scheme	District	Estimated cost in Rs. Lakhs	Expenditure incurred up to the end of 31.03.2005	Date of Commission
	lines				Sub-station on 13.12.2004 Additional Terminal bays on 19.07.2004
16	66 KV sub-station at <b>Vidyanagar</b>	Bangalore Urban	752.5	602.61	30.11.2004
17	110 KV sub-station at <b>Tikota</b> with associated lines	Bijapur	881.11	542.41	Transmission line on 02.03.2005 Sub-station on 07.03.2005
18	220 KV sub-station at <b>Bagalkot</b> with associated lines	Bagalkot	3010.23	2463.42	27.01.2005
19	110 KV sub-station at <b>DM Kurke</b>	Hassan	315.50	300.60	Transmission line on 22.08.2003 Sub-station on 28.02.2005

3. The Commission notes that the physical progress achieved is only between 55 to 65% of the programme. KPTCL has indicated in the revised ERC for FY06 the capital expenditure incurred for FY05 as Rs.875 Crs. KPTCL in letter dated 14.9.2005 have clarified that the actual capital expenditure incurred in FY05 as Rs.471.68 Crs. Therefore, the financial progress achieved is only 53.90% of the programme. As discussed earlier, the net borrowings during the year FY05 is only Rs.68.94 Crs. The Commission approves the actual capital expenditure incurred by KPTCL during FY05.

### 3.5.3.8 Energy Input at interface points:

**Table-3.21**

#### **Details of Energy input at interface points for FY05**

Particulars	Actuals
Total energy input	33110
Transmission loss	1383
MUSS consumption	16
Net energy available	31711
<b>Energy input at interface points</b>	
BESCOM	14697
MESCOM	5992
HESCOM	6214

Particulars	Actuals
GESCOM	4657
Hukeri Society	151
Total input at interface points	31711

### 3.5.3.9 Transmission Loss:

As indicated in the above Table, the approved energy input for FY05 was 33110 MU and energy input at interface points of ESCOMs was 31711 MU. The actual transmission loss in FY05 works out to 4.18%. The Commission notes that the reduction in transmission loss is mainly on account of commissioning of new transmission lines and stations, apart from better administrative measures. The Commission appreciates the efforts of KPTCL in further bringing down the transmission loss from 4.87% in FY04 to 4.18% in FY05. The Commission approves the actual transmission loss of 4.18% in FY05.

### 3.5.3.10 Bulk Supply Tariff and Transmission charges for FY05:

1. The existing BST is 209.35 paise per unit as approved in the Tariff Amendment order dated 15.12.2003 which came into effect from 01.01.2004 and the existing transmission charges is 18.67 paise per unit as approved in Tariff Order 2003 which came into effect from 01.01.2003.
2. Considering the above discussions, details of power purchase cost and transmission expenses as allowable by the Commission for FY05 and amount of BST & Transmission charges actually recovered by KPTCL in FY05 is indicated below:

	Rs Crs.
Bulk Supply cost allowed for FY05:	5980.08
Add: Allocation of LDC Charges:	9.50
	-----
Total Bulk supply cost	5989.58
Bulk supply cost recovered by KPTCL as per audited accounts.	6227.21
	-----

Excess Recovery of Bulk supply cost	237.63
Transmission Expenses allowed for FY05 -	428.40
Less: Allocation of LDC charges to bulk supply cost	- 9.50
	-----
Net transmission expenses	418.90
Transmission charges recovered *	
By KPTCL in FY05 as per audited accounts	
Including wheeling charges	433.42
	-----
Excess recovery of transmission charges	14.52
Total excess recovery of bulk supply cost and Transmission charges in FY05	252.15

(\* Withdrawal of revenue demand etc as per KPTCL's accounts for FY05 considered under transmission charges)

3. Since the Financial year 2005 is already over and accounts of KPTCL and ESCOMs have already been prepared and also accounts are audited in the case of KPTCL, any re-determination of BST and transmission charges for FY05 at this stage would not be reflected in the accounts of KPTCL and ESCOMs for FY05. Therefore, the Commission decides to carry over the excess recovery of bulk supply cost amounting to Rs.237.63 Crs. and excess recovery of transmission charges amounting to Rs.14.52 Crs. in FY05, totalling to Rs.252.15 Crs. to the ERC for FY06 for appropriate adjustment.

### **3.5.4 Analysis of ERC for FY06:**

#### **3.5.4.1 Power purchase Quantity:**

1. In terms of Section 39(1) of EA 2003, KPTCL is barred from trading in electricity with effect from 10.06.2005. Therefore, GoK vide order dated 10.05.2005, has ordered that the ESCOMs will purchase power from the various generating companies from 10.06.2005 and that PPAs of KPCL, VVNL, CGS and conventional IPPs are assigned to all the ESCOMs and the share of each ESCOM from such sources would be in proportion to the energy consumption in FY05. Further,

Renewable energy projects have been assigned to the ESCOMs based on the geographical location of the projects. A copy of the said GO is placed at **Annexe-6**.

2. In KPTCL's ERC filing for FY06 (filed in Feb 05), KPTCL had included the total power purchase estimates for FY06. In view of the GO dated 10.6.05, the Commission requested KPTCL to segregate the power purchase for the period relating to KPTCL i.e from 01.04.2005 to 09.06.2005 and that relating to the ESCOMs i.e for the period from 10.06.2005 to 31.03.2006. Accordingly, KPTCL has furnished these details.
3. For the purpose of total requirement of electricity for the state as a whole, the Commission would initially analyse the power purchase estimates for FY06 considering requirement of all the ESCOMs together and thereafter allocation amongst ESCOMs would be discussed.
4. As against actual energy availability of 33110 MU in FY05, KPTCL in its ERC for FY06 had indicated the energy requirement for FY06 as 36488 MU, showing an increase of 10.2%. The Commission pointed out during validation that the forecast of energy requirement for FY06 is on the higher side when compared to actual annual growth over the previous years. KPTCL in its reply dated 21.06.2005 revised the energy requirement to 35325 MU for FY06 stating that the ESCOMs have revised their requirement.
5. Total energy input into the system in the last seven years from FY99 to FY05 and forecast of requirement for FY06 as per KPTCL's filing are indicated below:

**Table-3.22****Year-wise Energy Input and Growth Rate**

Year	Total Input (MU)	% increase over previous year
FY99	22746	5.23
FY00	26118	14.82
FY01	27700	6.06
FY02	29061	4.91
FY03	29279	0.75
FY04	31210	6.60
FY05	33110	6.09
<b>7 Year CAGR from FY99 to FY05</b>		<b>6.46</b>
FY06 (requirement as per revised filing dated 21.6.05)	35325	6.69

6. From the above table it may be seen that, the actual CAGR in energy input for the period from FY99 to FY05 is 6.46 % and according to KPTCL's revised filing the requirement in FY06 is 6.69% higher over FY05 input which appears to be reasonable.
7. Details of actual energy availability during the first five months of FY06 in comparison with the energy availability during the corresponding period of the previous years and generation during the balance period are given below:

**Table-3.23****Actual Energy availability upto Aug 2005 and Projection for the balance period with corresponding availability in the previous years**

Period	Actual energy availability in FY04 (MU)	FY05		FY06	
		Actual energy availability (MU)	% Increase over corresponding month	Actual energy availability (MU)	% Increase over corresponding month
April	2456.46	2788.34	13.51	2877.61	3.20
May	2560.17	2369.72	-7.44	2923.38	23.36
June	2141.23	2269.72	6.00	2449.85	7.94



Period	Actual energy availability in FY04 (MU)	FY05		FY06	
		Actual energy availability (MU)	% Increase over corresponding month	Actual energy availability (MU)	% Increase over corresponding month
July	2357.1	2744.84	16.45	2363.17	-13.90
Aug	2315.88	2522.20	8.9	2547.21	7.79
<b>Sub-Total</b>	<b>11830.94</b>	<b>12694.82</b>	<b>7.30</b>	<b>13161.22</b>	<b>3.67</b>
<b>Balance Period</b>	<b>19379.06</b>	<b>20415.18</b>	<b>5.35</b>	<b>22163.78</b>	<b>8.57</b>
<b>Total</b>	<b>31210</b>	<b>33110</b>	<b>6.09</b>	<b>35325</b>	<b>6.69</b>

8. It may be seen from the above table that, the actual energy availability has increased by 3.67 % for the period upto August 2005 in FY06 when compared to the corresponding period of the previous year and it requires an increased availability of 8.57% for the remaining period in FY06 in order to achieve the over all increase of 6.69% growth in FY06. The Commission considers the KPTCL's energy availability forecast of 35325 MU for FY06 with a growth rate of 6.69% over the previous year as reasonable and approves the same.
9. The Commission notes that the monsoon has been fairly good this year and there is an increased hydro availability of about 2313 MU with reference to that in FY05 this year considering the reservoir levels as at the end of August 2005. Infact, most of the objectors have stated that because of the increased hydro availability, the cost of power purchase during FY06 would be substantially less and therefore no tariff revision would be required. The objectors urged the Commission to consider the revised energy availability from hydro sources. The live storage in the major reservoirs as at the end of August 2005 is given below with the corresponding levels in the previous year:

**Table-3.24****Major Reservoirs' Level**

Details	Linganamakki		Supa		Mani	
	As on 31.8.04	As on 31.8.05	As on 31.8.04	As on 31.8.05	As on 31.8.04	As on 31.8.05
Level	1808.10 Ft.	1816.50 Ft.	544.20 Mtr.	554.20 Mtr.	589.19 Mtr.	589.18 Mtr.
Live Capacity (Mcft)	117627	143312	73178	105946	21883	21867
Equivalent Energy MU	3529	4300	1591	2303	619	618
Increased Availability		771		712		-1

Total increased availability from major reservoirs as on 31.08.2005 is 1482 MU.

10. In view of the changed energy availability scenario because of good monsoons, the Commission requested KPTCL to provide revised energy availability forecast for FY06 duly considering the actual generation upto end of August 2005 and projected availability for the balance period duly considering the prevailing reservoir levels as at the end of August 2005 and anticipated inflows for the balance period. KPTCL vide its letter dated 12.09.2005 furnished the revised projection of energy for FY06 considering the reservoir levels upto the end of August 2005. The same is considered by the commission to work out the total energy. The details of energy availability from different sources are as under:

**KPCL Hydro****Sharavathy Complex**

The KPTCL has projected the availability for FY06 from Sharavathy complex based on the actuals of the past three years and expected monsoon. The generation at Linganamakki Dam Power House and

Sharavathy tail race project are stated to have been matched with the discharge from Linganamakki dam and local inflows. As stated earlier, KPTCL have furnished the revised availability from these stations vide their letter dated 12.09.2005. The projected figures of KPTCL in the ERC filing and the revised availability as furnished by KPTCL are tabulated hereunder:

**Table-3.25**

**Energy Availability from Sharavathi Complex**

<b>Station</b>	<b>Projection by KPTCL in ERC filing MU</b>	<b>Revised availability furnished by KPTCL in their letter dated 12.09.2005 MU</b>
Sharavathy Generating Station	4232	4939
Linganamakki Dam Power House	125	300
Sharavathy Tail Race project	410	478
<b>Total</b>	<b>4767</b>	<b>5717</b>

The Commission considers drawal of 5717 MU from the above stations based on the revised availability furnished by KPTCL.

**Kalinadi Hydro Electric Project**

The KPTCL has projected the availability in the Kalinadi Complex on the basis of matching the generation at Kodasalli and Kadra Power houses with the discharge from Supa Dam and local inflows from the independent catchment areas.

The projected generation figures for FY06 in the ERC filing by KPTCL and the revised availability figures furnished vide their letter dated 12.09.2005 are tabulated hereunder.

**Table-3.26**  
**Energy Availability from Kalinadi Project**

<b>Station</b>	<b>Projection by KPTCL in ERC filing MU</b>	<b>Revised availability furnished by KPTCL MU</b>
Supa Dam PH	260	390
Nagjhari PH	1914	2234
Kodasalli PH	200	297
Kadra PH	175	340
<b>Total</b>	<b>2549</b>	<b>3261</b>

The Commission considers drawal of 3261 MU from the above stations based on the revised availability furnished by KPTCL.

### Varahi Hydro Electric Project

The projected generation figures for FY06 in the ERC filing and the revised availability figures furnished by KPTCL are tabulated hereunder:

**Table-3.27**  
**Energy Availability from Varahi Project**

<b>Station</b>	<b>Projection by KPTCL in ERC filing MU</b>	<b>Revised availability furnished by KPTCL MU</b>
Mani Dam Power House	20	23
Varahi Underground PH	570	914
<b>Total</b>	<b>590</b>	<b>937</b>

The Commission considers drawal of 937 MU from the above stations based on the revised availability furnished by KPTCL.

### Almatti Dam Power House

The KPTCL has projected in the ERC filing a total generation of 130 MU from Almatti Dam Power House. The KPTCL has furnished the revised projection of 393 MU for this project vide its letter dated 12.09.2005. The

Commission considers a drawal of 393 MU from Almatti Dam Power House based on the revised forecast of KPTCL.

### Other Hydro Stations of KPCL

The projection of KPTCL in the ERC filing for the year FY06 and the revised availability furnished by KPTCL in respect of the other hydro stations of KPCL are tabulated hereunder:

**Table-3.28**

#### Energy Availability from other Hydro Stations of KPCL

Station	Projection by KPTCL in ERC filing MU	Revised availability furnished by KPTCL MU
1. Bhadra Hydro Electric project	25	76
2. Ghataprabha Hydro Electric project	92	111
3. Sirwar	0	Included in item (4)
4. Mallapur & others	4	25
5. Bhadra RBC Power House	20	included in item (1)
6. Kalmala P.H.	0	Included in item (4)
7. Ganekal P.H.	0	Included in item (4)
<b>Total</b>	<b>141</b>	<b>212</b>

The Commission considers a drawal of 212 MU from the above stations based on the revised availability furnished by KPTCL.

### KPCL Wind Farm (Kappada Gudda)

The projection of KPTCL from the Kappada Gudda Wind farm for FY06 and the revised projection of KPTCL are furnished hereunder:

**Table-3.29**

Station	Projection by KPTCL in ERC filing MU	Revised availability furnished by KPTCL MU
Kappada Gudda Wind Farm	8	14

The Commission considers a drawal of 14 MU from the Kappada Gudda Wind farm as per the revised forecast furnished by KPTCL.

### **KPTCL Thermal**

#### **Raichur Thermal Station**

The KPTCL has projected in the ERC filing the generation from the Raichur Thermal Station for FY06 on the basis of a plant load factor of 85%. From the daily generation sheets furnished to the Commission, it is seen that the generation has been curtailed in RTPS during the months of July & August 2005 consequent to increased inflows into the hydel reservoirs. KPTCL has furnished the revised forecast of generation from RTPS for FY06 duly considering the actual generation upto end of August 2005 and anticipated generation for the balance period of FY06. The projected figures in the ERC filing and the revised figures are tabulated hereunder.

**Table-3.30**

#### **Energy Availability from RTPS**

<b>Station</b>	<b>Projection by KPTCL in ERC filing For FY 06 MU</b>	<b>Revised projection by KPTCL furnished vide their letter dt.12.9.05 MU</b>
Units 1&2	2650	2209
Unit 3	1557	1244
Unit 4	1525	1263
Units 5&6	2800	2828
Unit 7	1483	1133
<b>Total</b>	<b>10015</b>	<b>8677</b>

The Commission considers drawal of 8677 MU from the RTPS based the revised forecast of generation furnished by KPTCL for FY06.

#### **VVNL Hydro Generating Stations**

In the ERC filing for FY06, KPTCL has projected the generation from VVNL generating stations at 499 MU. KPTCL has furnished the revised availability considering the actual generation upto end of August 2005 and

anticipated generation for the balance period of FY06. The comparative figures are furnished hereunder:

**Table-3.31**  
**Energy Availability from VVNL Hydro**

<b>Power Station</b>	<b>Projection by KPTCL in ERC filing For FY 06 MU</b>	<b>Revised forecast by KPTCL MU</b>
Shivasamudram	185	196
Shimshapura	102	97
Munirabad	92	57
MGHE	120	178
<b>Total</b>	<b>499</b>	<b>528</b>

The Commission considers drawal of 528 MU from the above stations of VVNL based on the revised forecast furnished by KPTCL.

### Other Stations

#### TB Dam Power House

The KPTCL has projected a generation of 30 MU from TB Dam Power House for FY06. KPTCL has furnished the revised forecast of 36 MU for this power house. The Commission considers drawal of 36 MU from this power house for FY06.

#### VVNL (Thermal) – Yelahanka Diesel Station

KPTCL has projected in the ERC filing a drawal of 706 MU from the Yelahanka Diesel Station for FY06. KPTCL has furnished the revised forecast based on actual generation of 49 MU upto end of August 2005 and 194 MU for the balance period of FY06 totalling to 243 MU. The Commission therefore considers a total drawal from Yelahanka Diesel Station to the extent of 243 MU for FY06.

### Central Generating Stations (CGS)

The drawal from the CGS in FY06 has been projected in the ERC filing to the extent of 10358 MU against actual drawal of 10213.05 MU during FY04 and 9818.20 MU projected for FY05. The KPTCL have stated that Talcher Phase II Unit 3 is commissioned on 01.08.2003 and Unit 4 on 01.03.2004. The losses in the PGCIL Transmission lines is estimated at 4% for FY06. Power purchase from Bilateral Trading from PTC/NTPC/NVVN is not projected for FY06.

The KPTCL have furnished the revised forecast for drawal from these stations based on actual drawal upto August 2005 and proposed drawal from September 2005 to March 2006. The figures are tabulated hereunder.

**Table-3.32**  
**Energy Availability from Central Generating Station**

Stations	FY04 (actual)	FY05 (estimated)	FY06 (estimated) as per ERC filing	FY06 Revised forecast KPTCL letter dated 12.09.2005
Ramagundam	3006.56	2869.69	3356	2822
Neyveli – I	847.87	704.94	859	886
Neyveli – II	1235.62	1200.39	1171	1159
NLC – II (Addl.)	452.41	665.39	618	720
MAPS	96.9	99.83	103	105
KAPS	829.82	721.57	811	776
PGCIL charges	0.00	0.00	0	0
Talcher – II	835.85	1938.76	2275	2978
NTPC – ER	571.23	644.2	0	0
PGCIL –UI Charges	1404.74	760.34	1165	1062
NTPC NVVN & PTC	932.54	213.06	0	0
NTPC - VII	0.00	0.00	0	706
<b>TOTAL</b>	<b>10213.54</b>	<b>9818.20</b>	<b>10358</b>	<b>11214</b>



The Commission allows the above proposed drawal from the Central Generating stations to the extent of 11214 MU for FY06.

### Private Generating Stations

In the ERC filing the actual drawal from the following sources in the year FY04, the estimated drawal in FY05 and the projections for the year FY06 have been furnished by the KPTCL as follows:

**Table-3.33**  
**Energy Availability from Private Generating Stations**

(MU)

Stations	FY 04 (actual)	FY 05 (estimated)	FY 06 (estimated)
Rayalseema	41.63	42.15	140.00
Tanir Bavi	866.37	426.66	1248.00
Tata	235.50	145.70	414.00
Jindal	780.17	568.08	730.00
Total	1923.67	1182.59	2532.00

In view of better availability from hydel sources KPTCL have furnished the revised forecast of drawal from these sources for FY06 as follows.

	MU
Tanir Bavi	647.00
Rayala Seema	61.00
Tata Co.	236.00
Jindal	410.00
<b>TOTAL</b>	<b>1354.00</b>

The Commission allows drawal from these sources to the extent of 1354 MU for FY06.

### Non Conventional Energy (NCE) Projects

The KPTCL has projected drawal from the above sources to the extent of 2268.6 MU in FY05 and 3000 MU in FY06. In the ERC filing, projection for FY06 is made in respect of both the existing projects and also the new projects expected to be commissioned during the year FY06. The KPTCL have also furnished in their letter dated 27.08.2005, the actual drawal during FY05 from the NCE projects. KPTCL have furnished the revised forecast for FY06 based on the actual drawal upto end of August 2005 and anticipated generation for the balance period of FY06.

**Table-3.34**  
**Energy Availability from NCE Sources**

Type of project	Projected drawal for FY06	Projected drawal for FY05	As per actuals – KPTCL letter dt.27.8.2005	(MU)
				Revised forecast as per KPTCL letter dated 12.09.2005
1. Cogeneration projects		978.78	691.51	
- Existing	879.27			
- New	470.73			1090
2. Biomass - Existing	45.81	-	-	
- New	80.19			172
3. Mini Hydel - Existing	217.95	765.99	315.74	
- New	691.05			822
4. Wind Mill	615.00	523.83	489.53	654
Total	3000.00	2268.60	1496.78	2738

The Commission considers drawal of 2738 MU from NCE sources for FY06 based on the revised forecast furnished by KPTCL.

An abstract of power purchase quantity from different sources as proposed by KPTCL and as approved by the Commission for FY06 is given below:

**Table-3.35**  
**Abstract of Energy Availability**

<b>Source</b>	<b>Proposed by KPTCL for FY06 in their letter dt.12.09.2005</b>	<b>Approved by the Commission for FY06</b>
KPCL – Hydro	10520	10520
KPCL – Thermal	8677	8677
KPCL – Wind	14	14
VVNL	771	771
TB Dam	36	36
Central Projects	11214	11214
Private Generators – IPPS	1354	1354
NCE projects	2738	2738
<b>Total</b>	<b>35324</b>	<b>35324</b>

#### **3.5.4.2 Power Purchase Cost:**

1. As discussed earlier, since KERC Order dated 25.07.2002 on the PPA between KPTCL and KPCL in respect of RTPS units has been challenged in the High Court by KPCL, KPTCL has stated that the tariff for units 5,6&7 are being paid as per the draft PPA signed between the parties and further that the projections for FY06 is as per the rates/bills made according to the draft PPA. The Commission notes that the Hon'ble High Court in the interim order has directed KPTCL and KERC not to take any coercive action in the matter. The Commission notes that the average cost of power purchase in FY05 from RTPS units 1 to 7 was 224.87 paise per unit as per KPTCL's audited accounts and KPTCL has projected the average power purchase cost from these units in FY06 as 228.80 paise per unit. KPCL, while providing the revised generation forecast for FY06 vide letter dated 05.09.2005 has stated that the forecast PLF for RTPS is 73.66 % during FY06 and as such for the purpose of claiming fixed charges, the deemed generation will also

be considered. The Commission, while adopting the revised generation forecast provided by KPTCL, has allowed the annual fixed charges (for RTPS units 4,5&6) as well as variable charges per unit (in respect of units 1 to 7) as projected by KPTCL, subject to outcome of the decision of the Hon'ble High Court of Karnataka in the pending appeal.

2. KPTCL has estimated the cost of power purchase from KPCL hydro stations based on the respective Government Orders since the KERC order dated 10.04.2003 has been challenged by KPCL in the Hon'ble High Court of Karnataka. In the absence of any stay on the Commission's order, KPTCL was directed to consider the rates as approved by the Commission. However, KPTCL has stated that rates of power purchase are subject to the final decision by the Hon'ble High Court and has requested to consider the rates as per their revised ERC. The Commission notes that there is no interim order issued by the Hon'ble High Court in this case. The Commission has approved two part tariff for all hydro stations including old hydro stations based on station availability while approving the PPAs, but the same has not been implemented. The Commission considers the single part tariff as adopted by KPTCL in the present Order.
3. In the case of Yelahanka Diesel Plant of VVNL also, the order of the Commission dated 10.10.2003 on the PPA between VVNL and KPTCL has been challenged by VVNL in the High Court of Karnataka. KPTCL has requested to adopt the power purchase cost as proposed by them in the ERC subject to the outcome of the decision of the Hon'ble High Court. Further, the Commission has repeatedly directed KPTCL to place the PPA in respect of VVNL hydro stations for approval of the Commission, which has not been furnished even after 5 years of formation of the Commission. The Commission during validation has informed KPTCL that the Commission will be constrained not to allow

the cost of power purchase from VVNL hydro stations unless the PPA is placed before it for approval. In reply, KPTCL has simply stated that VVNL will be asked to submit PPA to the Hon'ble Commission. The Commission notes that a uniform rate of 301.35 paise per unit had been projected by KPTCL in respect of Yelahanka Diesel Plant of VVNL as well as its hydro stations. The Commission has repeatedly pointed out that adopting a uniform rate for both hydro stations and Yelahanka Diesel plant of VVNL lacks basic logic since there is no fuel cost for hydro stations while fuel cost is the major component in respect of Diesel power. KPTCL, in its revised generation forecast provided on 12.09.2005 has projected the tariff for Yelahanka Diesel Plant as 411.32 paise per unit and for VVNL hydro stations at 301.35 paise per unit. However, the average rate for VVNL hydro stations adopted by KPTCL works out to 246.50 paise per unit and the basis for the same has not been explained. The Commission notes from the actual power purchase cost details provided by KPTCL for FY05 along with its annual accounts for that year, that KPTCL has adopted a stationwise tariff for each of the Hydro stations of VVNL and a separate tariff for Diesel Plant. The Commission has also looked into the Annual Accounts of VVNL for FY05 (Provisional accounts) and notes that the annual expenses in respect of both hydro stations and diesel plant of VVNL, other than the cost of fuel/water, is of the order of Rs. 65 Crs. per annum only, while KPTCL has sought an amount of Rs. 130.15 Crs. for hydro stations alone in FY06. The Commission has obtained power purchase bills for April & May 2005 from KPTCL and observes that stationwise tariff is being admitted for VVNL hydro stations. The Commission decides to allow in FY06, the same rate as has been admitted by KPTCL in the power purchase bills in respect of VVNL hydro stations in the above months, subject to approval of the PPAs of these stations and in respect of Diesel plant, the projected rate of Rs.411.32 paise per unit.

4. The Commission's order on the hydro PPA between KPTCL and KPCL and also in respect of Almatti station has been challenged by KPCL in the Hon'ble High Court of Karnataka. Similarly, the order on the VVNL Yelahanka Diesel Plant has been challenged by VVNL in the Hon'ble High Court. The Commission notes that there are no interim orders issued by the Hon'ble High Court in all these cases. Further, KPTCL has not placed the PPAs of VVNL hydro stations before the Commission so far in spite of specific directions in the previous tariff orders. KPTCL has not persuaded the matter with all seriousness for implementation of the orders of the Commission which would have resulted in substantial savings in the power purchase cost. Therefore, while considering the power purchase cost in respect of the above sources, the Commission has no alternative except to deduct a token lumpsum amount in the power purchase cost of FY06 for the present. The Commission decides to deduct a lumpsum amount of Rs.10 Crs. from the power purchase cost in the ERC for FY06 provisionally and informs KPTCL that it may include this amount in the future ERCs after establishing to the satisfaction of the Commission that it has taken due action to implement the orders of the Commission.
5. Regarding the assessment of cost of power purchase from CGS, on enquiry by the Commission, KPTCL has stated that the tariffs of CGS are due for revision w.e.f 01.04.2004 and that projections are made in the ERC with reasonable escalation over the actuals of previous year. The Commission notes that the CERC has notified improved norms w.e.f 01.04.2004 and the tariffs of CGS are likely to come down when the tariffs are revised from 01.04.2004. Further, the Commission in its letter dated 31.08.2005 pointed out to KPTCL how the rates adopted by KPTCL for some of the CGS in FY06 are substantially higher, when compared to actuals in FY05. KPTCL has stated that moderate projections have been made in the ERC for FY06 considering the actuals in FY05, there were some credit notes received in FY05 etc.

6. Further, the Commission pointed out that for the drawal from UI source, a tariff of 300 paise per unit has been projected. KPTCL had drawn 2212 MU from this source in FY05 at an average tariff of Rs. 1.97 per unit. With increased hydro availability in the State, KPTCL should be able to regulate the drawal and minimise payment of any UI charges. The Commission does not consider drawal from UI as a planned source for inclusion in the ERC. In the revised generation forecast dated 12.09.2005 provided by KPTCL, estimated drawal from UI has been revised to 1062 MU at an average rate of 283.49 paise per unit. The Commission directs KPTCL/ESCOs to regulate the drawal from UI by proper load management and completely minimise the UI charges.
7. The Commission agrees to provide the power purchase cost for CGS as projected by KPTCL, subject to actuals at the end of the year. The Commission also directs KPTCL/ESCOs to pursue the matter with CGS/CERC for revision of tariff as per CERC's revised norms which are applicable from 01.04.2004.
8. The fixed charges in respect of Tanir Bavi project, included by KPTCL in the power purchase cost is Rs.319.60 Crs. As discussed earlier, the Commission has not allowed fixed charges to the extent of 1.946 cents per unit to be passed on to the consumers through tariff for the reasons indicated in Tariff Order 2002/ Tariff Order 2003 and Tariff Amendment order dated 15.12.2003. KPTCL has filed appeal in the Hon'ble High Court of Karnataka on the earlier tariff orders issued by the Commission which includes disallowances made by the Commission in respect of Tanirbavi project also and that the matter is pending in the Court. The Commission reiterates its observations made in the earlier tariff orders. After excluding the additional fixed charges

amounting to Rs.145 Crs. for FY06, the Commission has allowed the remaining cost as projected by KPTCL.

9. In respect of Rayalseema project and Tata Generating Company, KPTCL has stated that the fixed charges has been provided as per the provisions of the PPA and in respect of variable charges the same is considered at 10% over the average rate in FY05. The Commission accepts these rates as reasonable.
  
10. In respect of power purchase from JTPCL, KPTCL has adopted the tariff in accordance with the Orders of the Hon'ble High Court. As discussed earlier, both KERC and KPTCL have filed SLP in the Hon'ble Supreme Court of India against the orders of the Hon'ble High Court of Karnataka and the matter is pending in the Hon'ble supreme Court. The Commission accepts the rate adopted by KPTCL in the revised generation forecast dated 12.09.2005, subject to outcome of the decision of the Hon'ble Supreme Court in the pending SLP.
  
11. Regarding tariff for non-conventional energy sources, KPTCL has stated that the power purchase cost is estimated at Rs.990 Crs. and the forecast is made with an increase of 15% over previous year's projection. The average tariff works out to Rs.3.30 per unit at the projected cost. KPTCL has revised the projection to 317.24 paise per unit in the revised forecast. The Commission accepts this estimate subject to regulating the payment as per the PPAS approved by the Commission.

#### **3.5.4.3 Interest on Power Purchase Liabilities**

KPTCL had earlier included in the ERC under power purchase cost, interest on belated payment of power purchase dues amounting to Rs.253.17 Crs. for FY06. However, the same has not been included under power purchase cost in the revised generation forecast dated 12.09.2005.



For the reasons already elaborated in the Tariff Order 2003 and further discussed earlier in this order, this provision for interest on power purchase dues has not been allowed by the Commission in this order.

### 3.5.4.4 Abstract of Power purchase cost for FY06

On the basis of the above discussions, the details of power purchase cost as proposed by KPTCL and as approved by the Commission for FY06 are indicated in the following table:

**Table-3.36**  
**Details of Power Purchase cost proposed by KPTCL and approved**  
**by KERC for FY06**

Source	As proposed by KPTCL in letter dated 12.9.05			As approved by the Commission for FY06		
	Energy MU	Amount Rs. Crs.	Avg. Rate PS/unit	Energy MU	Amount Rs. Crs.	Avg. Rate PS/unit
KPC-Hydro	10520	570.35	54.22	10520	570.33	54.21
KPC- Thermal	8677	1985.26	228.80	8677	1985.26	228.80
KPC-Wind	14	4.17	297.86	14	4.17	297.86
CGS	11214	2292.54	204.44	11214	2292.54	204.44
Neighbouring States	-			-		
Private Generating Stations	1354	936.48	691.64	1354	936.48	
Less: Fixed cost of Tanirbavi project not allowed					- 145.00	
Net					791.48	584.55
NCE	2738	868.60	317.24	2738	868.60	317.24
VVNL Hydro	528	130.15	246.50	528	44.24	83.79
VVNL- Diesel	243	99.95	411.32	243	99.95	411.32
TB Dam	36	-	-	36	-	-
<b>Total</b>	<b>35324</b>	<b>6887.50</b>	<b>194.98</b>	<b>35324</b>	<b>6656.57</b>	<b>188.44</b>
<b>Less: Amount deducted as per para 4 of Section 3.5.4.2</b>					<b>10.00</b>	
<b>Net Total</b>	<b>35324</b>	<b>6887.50</b>	<b>194.98</b>	<b>35324</b>	<b>6646.57</b>	<b>188.16</b>

A statement showing source wise details of power purchase as projected by KPTCL in letter dated 12.09.2005 and as approved by the Commission is placed at **Annexe-7**.

### 3.5.4.5 Capital Investment Programme for FY06

1. KPTCL has proposed Capital Investment of Rs. 900 Crs. for FY06 and the scheme wise details proposed are indicated below:

**Table-3.37**

#### **Scheme-wise Details of Capital Investment Programme for FY06**

<b>Sl.No.</b>	<b>Schemes</b>	<b>Rs. crores</b>
	<b>System Strengthening &amp; Expansion</b>	
1	Transmission Lines & Sub-station works 400/220/110/66 KV including Project civil works & Ongoing works	<b>797.40</b>
	<b>Safety &amp; Protection</b>	
1	Replacement & retrofitting old/faulty switch gears and providing new switch gears	15.50
2	Providing/Replacement of EHV breakers along with CTs C&R panels, Batteries & Battery Chargers and allied equipment in Sub-stations	29.00
3	Replacement of damaged /faulty capacitors in Sub-stations	0.60
4	Protective equipments for sub-stations including metering	6.00
5	Providing Capacitor banks in sub-stations	1.40
	<b>Sub-Total (B)</b>	<b>52.50</b>
	<b>Renovations &amp; Maintenance</b>	
1	Maintenance of EHT lines, providing intermediate towers & strengthening of transmission lines and tower footings etc.	6.00
2	Replacement of failed power transformers in stations	16.00
3	Civil Engineering works	8.00
4	Retrofitting of distance Relays in 220 KV stations	1.10
	<b>Sub-Total (C)</b>	<b>31.10</b>
	<b>Load Dispatch &amp; Communications</b>	<b>5.00</b>
<b>E</b>	<b>Others</b>	
1	Survey & Investigation	4.50
2	Tools & Plants, Computers etc.	3.00

Sl.No.	Schemes	Rs. crores
3	Micro-Controllers in Sub-Stations	0.50
4	Updating KTI	6.0
	<b>Sub-Total (E)</b>	<b>14.00</b>
	<b>Total</b>	<b>900.00</b>

2. It is noted that sector wise allocation is generally in line with that of the previous year. However, allocation in respect of LDC and communication is only Rs.5 Crs. which appears to be inadequate since sophisticated data acquisition equipment has to be installed in the SLDC under the open access and intra-state ABT regime. Therefore, KPTCL may review and reallocate the budget to SLDC.
3. KPTCL has furnished the detailed programme of works under the capital investment programme of transmission schemes with details of on going works, new works costing more than Rs.5 Crs. new works costing Rs.5 Crs. or less etc in the formats specified by KERC. The Commission communicated its preliminary observations on the programme of works and KPTCL have complied with the observations and have submitted a revised programme. KPTCL shall provide individual scheme reports /DPRs in respect of works costing more than Rs.5 Crs. as required under the practice directions and seek approval from the Commission. The Commission will examine the individual schemes and communicate its approval separately.
4. KPTCL has proposed to meet the capital investment programme of Rs. 900 Crs. through fresh borrowings during the year. The Commission approves this capital investment programme as above, in principle, subject to approval for the individual schemes costing more than Rs.5 Crs.

### 3.5.4.6 Transmission Loss

1. In the ERC filing for FY 06, KPTCL has projected the transmission loss upto the interface points of ESCOMs in FY06 as 4.87%. Details of the actual transmission loss from FY03 to FY05 are as follows:

**Table-3.38**  
**Transmission Loss**

Year	Transmission Loss proposed in the ERC	Transmission Loss approved by the Commission	Actual Transmission Loss
FY03	6.39	6.39	6.835
FY04	6.39	6.00	4.87
FY05	4.87	4.18	4.18
FY06	4.87		

2. In the Tariff Order 2003, the Commission has brought out that substantial investment has been made by KPTCL during FY03 & FY04 for infrastructure improvement. KPTCL has also made substantial capital investment in FY05. The number of sub-stations and transmission lines commissioned during FY03 and FY05 are furnished in the following table:

**Table-3.39**  
**Stations Commissioned from FY03 to FY05**

SI No	Voltage	FY03		FY04		FY05	
		Nos	MVA Added	Nos	MVA Added	Nos	MVA Added
1	400 KV	Nil	Nil	1	630.00	-	-
2	220 KV	1	200.00	7	1012.50	1	230.00
3	110 KV	10	230.00	17	295.00	16	430.00
4	66 KV	16	198.30	13	266.40	14	227.00
	<b>Total</b>	27	628.30	38	2203.90	31	887.00

**Table-3.40**  
**Transmission Lines Commissioned from FY03 to FY05**

SI No	Voltage	FY03		FY04		FY05	
		Nos.	CKMs Added	Nos	CKMs Added	Nos	CKMs Added
1	400 KV	Nil	Nil	1	0.50	1	1.00
2	220 KV	3	101.65	9	446.05	3	69.32
3	110 KV	14	256.76	19	361.63	17	289.53
4	66 KV	28	318.72	26	427.50	18	276.52
	<b>Total</b>	45	1305.43	55	1235.68	39	636.37

3. The names of some of the important Stations commissioned during FY 03 are furnished below:
- 220 KV station at Chintamani
  - 110 KV stations at Yerragatti, Yagati, Ainapura, Gajendragada, Thimmanahally, Savalagi, Guttal, Rampura, Chincholi
  - 66 KV stations at Somayajipally, Cheemangala, Bannerghatta, Hosur (Kolar), Manchenahalli, Santhesargur, KHB Colony (Bangalore), Hampapura, Periyapattana, Bommalapura, Addihalli, Santhebachahalli, Arkere, Chikkenahalli, Basaralu, Amruthair
4. The names of some of the important Stations commissioned during FY 04 are furnished below:
- 400 KV substations at Talaguppa,
  - 220 KV stations Tataguni, Harohalli, Karwar, Gulbarga, Chitradurga, Honnalli, Madhugiri
  - 110 KV stations at Guruvayanakere, Ron, Dambal, Sandur, Lakshmeshwar, Navanagar (bagalkot), Kulgod, Honnavalli, Shivani, Kadanakoppa, Terdal, Rabkavi, Nittur, Mundargi, Vajramatti, K.G. Temple, Muthinakoppa

- d) 66 KV stations at Padmanabhanagara, NIMHANS, Gudikote, Hamapasagara, Widia, BMTCL, Kukkawada, Kodigenahalli, Yellurbande, Chakavelu, ID Halli, Hindusaghatta, Bevinahalli,
5. In addition, some major transmission Lines such as 400 KV Talaguppa-Nelamangala Double Circuit lines, 500 KV DC line from Talcher to Kolar and their evacuation lines were also commissioned during FY 03 and FY 04.
6. From the PRDCL report on System Studies for Perspective Plan for the period 1999-2010, it is seen that perceptible transmission loss reduction is estimated from a level of 10.07% to 4.86% in a period of 4 years. However, loss reduction has been very gradual thereafter over a period of 3 years from a level of 4.86% to 4.13% (as shown in the following table):

**Table-3.41****Transmission Loss**

<b>Year</b>	<b>1999-2000</b>	<b>2000-2001</b>	<b>2001-2002</b>	<b>2002-2003</b>	<b>2003-2004</b>	<b>2004-2005</b>	<b>2005-2006</b>	<b>2006-2007</b>
Transmission loss in %	10.07	9.09	8.67	6.39	4.86	4.55	4.21	4.13

7. As per the filing of KPTCL, the loss level in FY04 is 4.87% as against 6% allowed by the Commission and 4.18% for FY05. Considering that, significant reduction of losses cannot be achieved beyond this level and in addition, only about 55% of the target in respect of commissioning of new substations has been achieved during FY05, the Commission allows the same level of losses for FY06 as in FY05 i.e., 4.18%.

**3.5.4.7 Energy Input to ESCOMs**

1. According to KPTCL's revised ERC filing, energy available at interface points of ESCOMs in FY06 is projected to be 33608 MU out of the total

input energy of 35325 MU, after a transmission loss of 4.87%. Details of energy drawn by ESCOMs/Hukeri society at the interface points during FY04 and FY05 and forecast of requirement for FY06 as included in KPTCL's revised filing are given below:

**Table-3.42**

**Energy Availability at Interface Points**

Licensee	Actuals for FY04	FY05		FY06	
		Actual	% increase over previous year	Forecast of Requirement	% increase over previous year
BESCOM	13739	14697	6.97	16013	8.95
MESCOM	5697	5992	5.18	6220	3.81
HESCOM	5889	6214	5.52	6476	4.22
GESCOM	4211	4657	10.59	4740	1.78
Hukeri society	140	151	7.86	159	5.29
Total	29676	31711	6.86	33608	5.98

- The Commission observes that while the energy requirement at interface points of BESCOM in FY06 is projected to be higher by 8.95% over the previous year, 3.81% higher in the case of MESCOM, 4.22% higher for HESCOM, it is only 1.78% higher in the case of GESCOM. The growth rate adopted in respect of all the ESCOMs in FY06 is also not in tune with the growth in FY05 over FY04. Out of the extra energy of 1897 MU available at the interface points in FY06, 1316 MU (69%) is being made available to BESCOM and only 4.38% (83 MU) to GESCOM. This shows distorted growth across the ESCOMs.
- As discussed earlier, the Commission has allowed a transmission loss of 4.18% in FY06, and consequently the energy availability at the interface points would increase by 239 MU. The Commission would allocate this extra availability of 239 MU to the ESCOMs proportionately and the approved input to the ESCOMs is as follows:

### Input to the ESCOMs approved for FY06

	MU
BESCOM	16128
MESCOM	6264
HESCOM	6522
GESCOM	4774
Hukeri Society	159
	-----
Total	33847
	-----

#### 3.5.4.8 BST for the period from 01.04.2005 to 09.06.2005

1. The existing BST is 209.35 paise per unit as approved in the Tariff Amendment Order dated 15.12.2003 which came into effect from 01.01.2004 and the existing transmission charges is 18.67 paise per unit as approved in the Tariff Order 2003 which came into effect from 01.01.2003.
2. As discussed earlier, GoK has assigned the PPAs to the ESCOMs from 10.06.2005 since KPTCL is barred from engaging in trading of power under the EA 2003. KPTCL has furnished the details of power purchase by ESCOMs/Hukeri Society upto 10.06.2005 and further allocation of power purchase (both quantity and amount) to the ESCOMs from 10.06.2005 to 31.03.2006 as per the GO, duly considering the assignment of NCE PPAs to the respective ESCOMs, as detailed below:

**Table-3.43**

**Details of Energy input at interface points of ESCOMs for FY06 as provided by KPTCL letter dated 21.7.05**

(Energy in MU, Rs in Crs)

	FY06 Actuals upto 9.6.05 (for 70 days)		FY06 projected from 10.6.05 to 31.3.06 (for 295 days)		Total for FY06	
Licensee	Energy Input at Interface Point	Allocation of Power purchase cost	Energy Input at Interface Point	Allocation of Power purchase cost	Energy Input at Interface Point	Allocation of Power purchase cost
BESCOM	2944	590.32	13069	3105.50	16013	3695.82



	FY06 Actuals upto 9.6.05 (for 70 days)		FY06 projected from 10.6.05 to 31.3.06 (for 295 days)		Total for FY06	
MESCOM	1168	234.13	5052	1262.87	6220	1497.00
HESCOM	1272	255.12	5204	1300.76	6476	1555.88
GESCOM	825	165.33	3915	929.68	4740	1095.01
Hukeri	33	6.57	126	29.20	159	35.77
Total	6242	1251.47	27366	6627.99	33608	7879.46

3. From the details provided by KPTCL, the actual power purchase upto 09.06.2005 is 6596 MU and sales to licensees at interface points is 6242 MU and power purchase cost incurred by it upto 09.06.2005 is Rs.1251.47 Crs. inclusive of interest on power purchase cost on prorata basis.
4. After considering the disallowances made by the Commission as discussed earlier, the allowable power purchase cost upto 09.06.2005 would be as follows:

**Table-3.44****Allowable Power Purchase Cost upto 09.06.2005**

Particulars	Power purchase cost from 1.4.05 to 9.6.05 for 70 days (Rs crs)
Power purchase cost as claimed by KPTCL	1251.47
Less: Excess recovery of Bulk supply cost for FY05 carried over to FY06 as per para 3 of Section 3.5.3.10	237.63
Less: Disallowances made by KERC in power purchase cost of FY06 on prorata basis for 70 days (Fixed cost of Tanirbavi project Rs145+Interest on PP dues Rs. 253.17+Rs. 10 Crs. provisionally deducted, totalling to Rs. 408.17 Crs).	78.28
Net allowable cost	935.56

5. The Commission would consider excess recovery of Rs. 237.63 Crs. in BST for FY05 for adjustment in the BST for the period from 01.04.2005 to 09.06.2005 since there would not be any BST for the subsequent period. Considering the net power purchase cost of Rs.935.56 Crs. from 01.04.2005 to 09.06.2005 as above, the BST for that period works out to 148.03 paise per unit (Rs.935.56 Crs./ 6320 MU with 4.18% transmission loss). The Commission approves the same and informs KPTCL to revise the BST accordingly for the period from 01.04.2005 to 09.06.2005.

#### **3.5.4.9 Power Purchase Cost of ESCOMs for the period from 10.6.05 to 31.3.06.**

1. Out of the allowable power purchase cost of Rs. 6646.57 Crs. for FY06 (Table-3.36), the power purchase cost allowed through BST for the period from 01.04.2005 to 09.06.2005 is Rs. 935.56 Crs. and thus the balance allowable cost for the period from 10.06.2005 to 31.03.2006 is Rs. 5711.01 Crs. Out of the total generation forecast of 35324 MU, the actual availability for the period from 01.04.2005 to 09.06.2005 was 6596 MU as per the details provided by KPTCL. Therefore, the balance energy availability for the period from 10.06.2005 to 31.03.2006 is 28728 MU and the net energy availability at the interface points during the above period should be 27527 MU after a transmission loss of 4.18% for the year.
2. The NCE PPAs have been assigned to the respective ESCOMs based on their geographical location from 10.06.2005. Therefore, this requires separation of generation from NCE sources to work out the power purchase cost ESCOM wise. The energy availability from NCE sources upto 09.06.2005 was 263.66 MU at a cost of Rs.87.26 Crs. as per the details furnished by KPTCL in letter dated 21.07.2005. The Commission notes that the GoK vide its notification dated 31.08.2005 has reallocated the NCE projects to ESCOMs, so that the percentage of energy from NCEs is between 5% to 10% of ESCOMs total consumption

during a year. Since, KPTCL has not furnished energy allocation based on the above notification, the Commission has considered the allocation of NCE as per earlier notification, subject to adjustment at the end of the year.

3. Thus, the power purchase quantity and its cost for the period from 10.06.2005 to 31.03.2006 would be as follows:

**Table-3.45**  
**Power purchase cost of ESCOMs other than from NCE sources**  
**from 10.6.05 to 31.3.06**

Particulars	Power purchase quantity (MU)	Power purchase cost (Rs crs)
Total power purchase for the year FY06 as approved by KERC	35324	6646.57
Power purchase from 1.4.05 to 9.6.05	6596	935.56
Power purchase for balance period in FY06	28728	5711.01
Less : Purchase from NCE sources from 10.6.05 to 31.3.06 (2738 MU – 264 MU), (Rs.868.60 Crs. – Rs.87.26 Crs.)	2474	781.34
Thus, Power purchase from major sources from 10.6.05 to 31.3.06	26254	4929.67
Net energy available for ESCOMs/Hukeri Society at interface points after a transmission loss of 4.18%	25157	4929.67

4. Thus, the Average power purchase cost per unit for ESCOMs for the period from 10.06.2005 to 31.03.2006 from Sources other than NCE works out to 195.96 paise per unit (Rs.4929.67 Crs./25157 MU). Allocation of power purchase cost, other than from NCE source, is on a uniform basis to the ESCOMs as per the GO dated 10.05.2005. The Commission approves the power purchase cost to the ESCOMs, other

than from NCE, as 195.96 paise per unit for the period from 10.06.2005 to 31.03.2006.

5. According to the details furnished by KPTCL in letter dated 27.08.2005, the details of energy availability from NCE sources, ESCOM wise is as follows:

**Table-3.46**

**Details of Energy available from NCE sources, ESCOM wise for FY06**

Particulars	Energy available upto 9.6.05 (MU)	Balance period in FY06 (MU)	Total
BESCOM	153.249	739.045	892.294
MESCOM+ CHESCOP	50.757	926.37	977.127
HESCOM	35.408	839.050	874.458
GESCOM	19.803	175.244	195.047
Total	259.217*	2679.709	2938.926

\* this was indicated as 264 MU by KPTCL in power purchase cost statement.

6. Out of 3000 MU shown as availability from NCE sources by KPTCL, it has given an allocation for 2939 MU as above. Since KPTCL has revised the energy availability from NCE source as 2738 MU in letter dated 12.09.2005, the same would be allocated to the ESCOMs on prorata basis. The energy available from 10.06.2005 to 31.03.2006 becomes 2474 MU. The net energy available, after considering a uniform transmission loss of 4.18%, would be 2371 MU, which would be allocated to the ESCOMs on the above basis. The average power purchase cost from NCE sources is 317.24 paise per unit in FY06 (Table-39). After deducting the power purchase cost of Rs. 87.26 Crs. incurred upto 09.06.2005, the balance provision for FY06 amounts to Rs. 781.34 Crs. The average power purchase cost from NCE sources at the interface points would amount to 329.54 paise per unit at interface points.

7. Thus, the total energy available at the interface points and approved power purchase cost for FY06, ESCOM wise, are as follows:

**Table-3.47****Energy availability at interface points as approved by KERC for FY06****(MU)**

Particulars	BESCOM	MESCOM	HESCOM	GESCOM	Hukeri	Total
Energy available upto 9.6.05	2980	1183	1288	835	33	6320
From 10.6.05 to 31.3.06 (other than from NCE)	12494	4262	4509	3784	108	25156
From 10.6.05 to 31.3.06 –NCE	654	820	725	155	18	2371
Total	16128	6264	6522	4774	159	33847

\* Allocated to Hukeri on the basis of ratio of energy available at interface points.

**Table-3.48****Power purchase cost as approved by KERC for FY06****(MU)**

Particulars	BESCOM	MESCOM	HESCOM	GESCOM	Hukeri	Total
For Energy available upto 9.6.05 at BST of 148.03 ps/unit	441.17	175.09	190.68	123.67	4.95	935.55
From 10.6.05 to 31.3.06 (other than from NCE) at average rate of 195.96 ps/unit	2448.27	835.12	883.65	741.45	21.08	4929.57
From 10.6.05 to 31.3.06 –NCE at average rate of 329.54 ps/unit	215.53	270.07	238.77	51.04	5.93	781.34
Total	3104.97	1280.28	1313.10	916.16	31.96	6646.46

8. The Commission approves the power purchase cost for each of the ESCOMs/Hukeri society as above.

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9. As per GO dated 10.05.2005 on the assignment of PPAs, there is no assignment of PPA to the Hukeri Society. Therefore HESCOM shall supply electricity to the Hukeri Society in bulk at an average tariff of 214.36 paise per unit {(Rs. 21.08 Crs. +Rs.5.93 Crs./ (108MU+18MU) as indicated in the above tables}. The Commission will issue a separate order on the ERC of Hukeri Society duly indicating the recovery of bulk supply tariff in cash and through adjustment of subsidy.
10. The Commission is aware that the power purchase cost for FY06 approved by the Commission in the present order is still on the higher side and there would be substantial savings when actuals are considered at the year end. Historically also, the actual power purchase cost has been far lesser than the approved estimates. There is substantial increase in water inflow in the major hydro reservoirs after 01.09.2005 which would result in higher hydro generation by reduction of power purchase from thermal sources, leading to substantial savings in cost. The projected energy input by KPTCL is 35325 MU (projected in Feb 05) which is 6.69% over actual input in FY05. The actual input to the end of August 2005 is only 3.67% higher and it requires 8.56 % higher input in the balance period of FY06 to achieve 6.69% growth in FY06. Therefore, the projected input appears to be on the higher side. Drawal from NCE sources is indicated as 2738 MU in FY06 whereas the actual in FY05 was only 1497 MU and therefore the projection appears to be over optimistic. Drawal from UI source is indicated as 1062.4 MU, which again is on the higher side. With improved power availability from the hydro sources, drawal from UI would be minimum. Tariff adopted for CGS in the ERC is also on the higher side as pointed out earlier, apart from the fact that the tariff for CGS is due for revision from 01.04.2004 at improved norms. Tariff adopted for KPCL hydro stations is single part tariff as approved by the GoK earlier and the power purchase cost would reduce substantially when the Commission's order on the PPA is implemented

(tariff based on availability). Power purchase from major IPPs is expected to be quite less when compared to the approved estimates, when merit order is applied because of improved availability from hydro sources,

11. Therefore, the Commission would like to indicate that the power purchase cost would be subject to actuals at the end of the year duly applying efficiency and other parameters as approved by the Commission.

#### 3.5.4.10 Transmission Expenses:

KPTCL has estimated the net transmission expenses in the revised ERC for FY06 as Rs. 678.47 Crs. as indicated below:

**Table-3.49**

#### Transmission Expenses proposed by KPTCL

Rs. Crs

Particulars	As per Revised ERC filing for FY06
Repair and Maintenance	32.30
Employee Costs	183.40
A&G expenses	48.08
Depreciation	236.11
Interest & Finance charges	456.54
Less : Expenses Capitalised	-59.54
Other Debits	1.00
Net prior period charges``	1.00
Provision for Taxation	
<b>Total Expenditure</b>	<b>898.89</b>
Returns (14% on Equity plus Reserves)	111.15*
<b>Total</b>	<b>1010.04</b>
<b>Less: Other income</b>	<b>68.40</b>
<b>Net Transmission expenses</b>	<b>941.64</b>
<b>Less expenses allocated to BST</b>	<b>263.17</b>
<b>Net transmission expenses</b>	<b>678.47</b>
<b>Transmission charges (paise/unit)</b>	<b>19.54</b>

\* As worked out at 14% on Equity plus reserves

**a) Repairs & Maintenance:**

The proposed expenditure is Rs. 32.30 Crs. in FY06 as against actual expenditure of Rs.20.84 Crs. in FY05, an increase of Rs.11.46 Crs. (55%). The main increase sought is in respect of R&M of plant and machinery by Rs. 8.62 Crs. over the previous year. Since R&M expenditure is expected to result in better quality of service, the Commission approves the proposed expenditure.

**b) Employee Cost:**

1. KPTCL has proposed an expenditure of Rs. 183.40 Crs. in FY06 as against the actual expenditure of Rs.144.20 Crs. in FY05, an increase by Rs. 39.20 Crs. (27.18%). KPTCL has stated that the expenditure in FY06 would increase on account of engagement of Asst Engineers and Junior Engineers on contract basis apart from normal increase on account of annual increments, DA and increase in provision for terminal benefit due to increase in rate of actual valuation. The increase in basic pay provided is 3.13% over FY05 estimate, two instalments of DA at 4% each has been provided from 01.07.2005 and 01.01.2006 and Actuarial valuation for terminal benefits has been enhanced from 15.05% to 19.06% on basic pay & DA towards pension and 1.98% to 2.36% on basic pay towards gratuity. The Commission approves the proposed expenditure of Rs.183.40 Crs. for FY06.
2. The Commission in its earlier Tariff Orders, after elaborately discussing the matter, has decided not to allow bonus and cost of free/subsidised supply of electricity to the employees for pass through in the ERC/tariff. The Commission has also made it clear that the order of the Commission will not in any way hinder the licensees from fulfilling their contractual obligation to their employees. Accordingly the bonus amounting to Rs.1.54 Crs. included in the employee cost and cost of free/subsidised power to the employees amounting to Rs.0.39 Crs. has not been allowed by the Commission in FY06 (since the cost of



free/subsidised electricity to employees has not been separately provided by KPTCL the same is estimated as in the previous order). Thus the expenditure allowed by the Commission is as follows:

	Rs Crs.
Actual expenditure in FY05	183.40
Less Cost of Bonus & Free electricity to employees	1.93
	-----
Total	181.47
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3. Further, KPTCL has requested in the ERC to consider the increase in employee cost on account of revision of pay and allowances due from 01.04.2003 as a pass through as and when the same is incurred. The Commission has elaborately discussed this matter in the earlier tariff orders and given its observations. The Commission reiterates the position.

**c) Administration & General Expenses:**

KPTCL has proposed an expenditure of Rs.48.08 Crs. in FY06 as against actual of Rs.34.88 Crs. in FY05, an increase by Rs.13.20 Crs. (37.84%). The main increase sought is in respect of other professional charges by Rs. 3.42 Crs. The Commission had frozen the A&G expenses at FY01 level in Tariff Order 2001. However a 10% increase over actuals of FY02 was provided in Tariff Order 2003. The objectors have repeatedly raised the issue of increase in A&G expenses in all the hearings. There is need to keep this expenditure under control. The Commission agrees to provide 20% increase over the actual expenses in FY05 and thus approves expenditure of Rs. 41.86 Crs. in FY06.

**d) Depreciation:**

Provision for depreciation has been made at Rs.236.11 Crs. which is stated to be computed as per the rates prescribed by the Ministry of Power 1994 Notification. The Commission approves this provision.

**e) The interest and finance charges:**

1. The total amount of interest provided for FY06 is Rs.456.54 Crs. which includes interest on delayed payment of power purchase dues to an extent of Rs.253.17 Crs. The issue of interest on power purchase dues has already been discussed under power purchase cost, and after deducting the same, the interest provision amounts to Rs.203.37 Crs. The Commission notes that the net borrowings proposed for FY06 is Rs.808.47 Crs. KPTCL has stated that the interest on the loans taken over by Government of Karnataka is not included in the ERC.
2. After deducting interest on power purchase dues of Rs.253.17 Crs. the Commission allows the balance amount of Rs. 203.37 Crs.

**f) Expenses Capitalised:**

KPTCL has proposed capitalisation of interest amounting to Rs.36.94 Crs. and other expenses amounting to Rs.22.60 Crs. totalling to Rs.59.54 Crs. which is allowed by the Commission.

**g) Other Expenses:**

The Commission allows other expenses of Rs.1 crore and net prior period credit of Rs.1 crores as sought by KPTCL.

**h) Return on Equity/Reasonable Return:**

1. KPTCL has included in their ERC filing, return on equity at 14% amounting to Rs.111.15 Crs. This issue has been discussed by the Commission in the present Order while analysing the ERC for FY05. Accordingly, the Commission allows 12% return on equity and reserves at the beginning of the year, pending issue of terms and conditions of tariff regulations by the Commission. Thus, the RoE allowable for FY06

amounts to Rs.107.63 Crs. on equity plus reserves & surplus amounting to Rs.896.88 Crs. as per the audited accounts of KPTCL for FY05.

2. The ROE at 12% amounting to Rs.107.63 Crs. provided for FY06 is higher by Rs.39.88 Crs. when compared to ROR at 3% on NFA which would have amounted to Rs.67.75 Crs. The Commission expects the additional return to be invested in the capital works of the company.

#### **i) Other Income**

KPTCL has proposed other income for FY06 as Rs. 68.40 Crs. where as the actual other income as per the audited accounts for FY05 was Rs.211.52 Crs. The Commission allows other income of Rs.68.40 Crs. as proposed in the ERC subject to actuals at the end of the year.

#### **j) LDC Expenses**

KPTCL had proposed in the ERC to transfer an amount of RS.10 Crs. from the transmission expenses to power purchase cost on account of SLDC charges included in its estimates. The Commission pointed out that as per the GO dated 10.05.2005 on assignment of PPAs, SLDC charges will have to be borne in proportion to the allocation of power. KPTCL further clarified that SLDC charges beyond 10.06.2005 has been taken out and allocated at 50% to KPTCL and the remaining 50% as SLDC charges to ESCOMs. Therefore, the Commission allows deduction of Rs.5 Crs. from the transmission expenses of KPTCL being 50% of SLDC charges which may be claimed by the SLDC from the ESCOMs directly .

### **3.5.4.11 Approved Transmission Expenses**

Details of the transmission expenses proposed by KPTCL for FY06 and expenses as approved by the Commission is indicated in the Table below:

**Table-3.50****Details of the transmission expenses proposed by KPTCL for FY06 and as approved by the Commission**

<b>Particulars</b>	<b>As per Revised ERC filing for FY06</b>	<b>As approved by the Commission</b>
Repair and Maintenance	32.30	32.30
Employee Costs	183.40	181.47
A&G expenses	48.08	41.86
Depreciation	236.11	236.11
Interest & Finance charges	456.54	203.37
Less : Expenses Capitalised	-59.54	-59.54
Other Debits	1.00	1.00
Net prior period charges``	1.00	1.00
Provision for Taxation		
<b>Total Expenditure</b>	<b>898.89</b>	<b>637.57</b>
Returns (on Equity plus Reserves)	111.15	107.63
<b>Total</b>	<b>1010.04</b>	<b>745.20</b>
<b>Less; Other income</b>	<b>68.40</b>	<b>68.40</b>
<b>Net Transmission expenses</b>	<b>941.64</b>	<b>676.80</b>
<b>Less SLDC expenses</b>	<b>263.17</b>	<b>5.00*</b>
<b>Net transmission expenses</b>	<b>678.47</b>	<b>671.80</b>

\* To be claimed from ESCOMs

The Commission reiterates in the present Order that any non-controllable expenditure would be considered for true up at the end of the year subject to efficiency norms and other parameters set out by the Commission.

**3.5.4.12 Transmission Charges for FY06:**

1. Considering the approved transmission expenses the transmission charges for FY06 would be as follows:

	Rs Crs.
Transmission expenses as approved for FY06	671.80
Less: excess recovery of transmission expenses	14.52
In FY05 (as per para 3 of 3.5.3.10) carried forward	

Net transmission expenses	----- 657.28
Energy input at interface points of ESCOMs	33,847 MU
Transmission charges per unit (Rs.657.28 Crs. / 33847 MU)	19.42 Paise/unit

The Commission approves the transmission charges for FY06 as 19.42 paise per unit effective from 1.4.05.

**2. *The Transmission charges applicable under Open Access are discussed separately in Chapter – 11 of this Order.***