### Gist of objections received and KPTCL’s response

In response to the KPTCL’s ERC/Tariff filing, 27 written submissions have been received and KPTCL has responded in writing to all these objections. The gist of these objections & KPTCL’s response in writing is discussed below:

<table>
<thead>
<tr>
<th>Objection No.</th>
<th>Gist of Objections</th>
<th>KPTCL Response</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KA-1</strong></td>
<td>1. Department is not making any serious effort to reduce loss in transmission to improve revenue collection. ESCOMs have not improved their quality of service &amp; maintenance. KPTCL has retained the loss level at 4.18% since FY05. Considering the proposed investment and the PRDCL report the loss has to come down at least to 4.13%.</td>
<td>Transmission loss is the lowest and stands at 4.18% despite increase in the quantum of energy handled. As per EPRI, USA the loss level at 400 kV &amp; 220 kV level is in the range of 2%-4% whereas KPTCL’s has recorded 2.5% loss at this level. Further at sub-transmission level the losses as per EPRI would be in the range of 2%-4.5%, whereas in KPTCL system it is around 2%. The state has not seen any grid disturbance since 2002. The voltage at various stations has seen substantial improvement during the last 5 years. Further, average frequency has improved from 48.70 Hz in 1999-2000 to 49.69 Hz in 2003-2004.</td>
</tr>
<tr>
<td><strong>KA9</strong></td>
<td>2. Revenue loss to be compensated by improving upon administrative &amp; technical aspects of power sector. 3. Due to good monsoon during the year, there is no need for increase in tariff. 4. Frequent rise in tariff may affect industrial development &amp; economy of the State.</td>
<td>Other points raised in the objection pertain to retail tariff/ESCOMs.</td>
</tr>
<tr>
<td><strong>KA2, KA3</strong></td>
<td>Gram panchayat’s only source of income is the house tax and hence they are not financially sound to bear the increase in tariff. They have requested to reduce the tariff for water supply &amp; street lighting. Further, KPTCL instead of improving their efficiencies are burdening the end consumers. Therefore ERC of KPTCL has to be rejected.</td>
<td>The issues raised are pertaining to retail tariff/ESCOMs and not relevant to KPTCL.</td>
</tr>
<tr>
<td><strong>KA4</strong></td>
<td>1. About 64% of the gross water tariff revenue pertains to cost of power and forms the single cost component of BWSSB is not relevant for determination of tariff of KPTCL/ESCOMs.</td>
<td></td>
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</tbody>
</table>
largest item of expenditure for BWSSB. The present proposal of KPTCL to increase tariff would result in increase in retail tariff to BWSSB. BWSSB is a self-supporting organization without any budgetary support.

2. The total increase in transmission tariff over the last 2 years is about 70%, which is too high.

3. There is a disproportion between the increase in quantity of energy handled and increase in tariff.

4. Since KPTCL is now only a wires company its volume of operation has come down and hence Administration & Employee costs have to substantially reduce. KPTCL has failed to control its costs and therefore, KPTCL's proposal to increase tariff is not justified.

5. Capex:
   a. The huge investment of Rs. 2700 Crs would result in higher depreciation & interest charges. As a result, there would be higher revenue deficit and thus increase in tariff. The capital works program should be an achievable program and not artificially boosted just to extract higher tariff from consumers. KPTCL should complete the ongoing works first and prove their capability before seeking a quantum jump.

   b. KPTCL has not justified its proposed investment. Usefulness & prudence tests should be applied while considering such investment proposals. Such proposals should be based on facts & figures and not on felt

   The ARR of KPTCL for FY07 is only 3% more than the FY05 figures. This is only a marginal increase compared to the overall costs. The increase in tariff would be 6.64 paise/unit.

   KPTCL/ESCOMs follow merit order and hence additional purchases will be at higher costs. This results in disproportion between increase in input and costs.

   Employees of KPTCL engaged in trading business are still doing the same work for ESCOMs and their salaries are being paid by KPTCL. Further, mere separation of trading will not reduce A & G expenses.

   KERC has formed an expert committee to scrutinize the investment proposal, which would look into the matter.

   KPTCL has furnished all details pertaining to its investment in the ERC filing and also to expert committee and has justified the same.
| KA4/KA9 | beliefs.  
c. KPTCL has failed to furnish the means of finance for the investment program. KPTCL's statement that the requirements of the funds would be met through loans from PFC, REC etc is vague and cannot support the tariff application.  
d. The amount of Rs.1755 Crs. suggested by expert committee is not sacrosanct, as it does not look into the ability of KPTCL and the tariff impact on consumers. Hence, KERC has to look into this matter.  
e. Savings accrued due to investments has to be passed onto consumers.  
6. The year on year interest figures have increased substantially in spite of reduced volume of operations for KPTCL. Details of interest calculations is not furnished.  
7. KPTCL has requested for higher depreciation due to their inability to service the debts. This should not be allowed as it is against the Consumers’ interest. Further, on one hand KPTCL is requesting for higher RoE stating that its net-worth is eroding and on the other hand it is proposing to borrow huge amounts for capital investments and pleading inability to pay the debts.  
8. KPTCL has to take adequate measures to control its interest | PFC & REC have agreed in writing to finance KPTCL’s investment program for FY07. Details of loan drawal are furnished in format T-9 in the ERC filing. KPTCL would endeavor to keep the cost of financing at a very minimum level. KPTCL is not receiving any financial assistance from GoK/GoI.  
The Condition of the present transmission system is due to non-investment of adequate amounts in the past decade. Any reduction in the proposed amount of Rs.2700 Crs. would continue the existing problems in the system. Further, any postponement of the proposed investment would increase the cost by almost 30% and would burden the consumers in future. Therefore, KPTCL requested the Commission to consider Rs.2700 Crs. for capital investment.  
Savings accrued would be reflected in the ERCs of ESCOMs.  
Interest on purchase & sale of power is not included in ARR. The interest liability is explained in form T-9. The interest amount has increased due to the massive investment proposed.  
The depreciation provided should at least meet the debt obligation and hence KPTCL has requested for advance against depreciation.  
RoE allowed for CTU is 14% and KPTCL is also seeking the same RoE so that there
| KA5, KA6, KA7, KA12, KA13, KA14, KA15, KA16, KA17, KA18, KA27 | Power supply for Drinking water Schemes under the Gram Panchayaths need to be provided on concessional rates. |

| KA8, KA8/KA23/KA24/KA26, KA8/KA9/KA22/KA25 | 1. KPTCL has gone on appeal to the court on the earlier tariff orders and the same is pending. Therefore, the present ERC petition should be stalled.  
2. The revision of tariff has become a traditional custom. This tariff revision proposal of KPTCL will be followed by tariff revision proposals of ESCOMs, which will affect consumers.  
3. The Commission had disallowed certain expenses in its tariff order 2005. Now there is no necessity to review these issues in the present order. Wherever the Commission has disallowed any expenditure, such disallowance has always been made after giving full opportunity to the applicant. KPTCL's statement that they would approach high court/appellate tribunal in the matter is not called for and KPTCL is holding a threat before the Commission.  
4. KPTCL has failed to fix the meters as per the directions of the Commission. Also as per NEP, meters have to be subjected to periodical testing through third party, which is not being |

| KA8/KA9/KA22/KA25 | The objections are not relevant to the ERC filing of KPTCL. |

| KA8 | ERC has been filed as per KERC’s regulations in the matter. Any legal implications would be looked into by KERC. |

| KA8/KA23/KA24/KA26 | ERC is filed as per KERC Tariff Regulations and the tariff revision is proposed to bridge the gap due to additional expenditure to be incurred.  
As the disallowed expenses are actually incurred, KPTCL is requesting the Commission to reconsider the same. Politeness is the hallmark of KPTCL. Whatever KPTCL has mentioned is within the legal framework and it cannot be termed as a threat to the Commission.  
KPTCL is taking necessary action in the matter. |
5. Quality of supply is not satisfactory which is reflected in the logbook recordings of 220 kV Kushtagi station of KPTCL.

6. Directives of the Commission are not complied to and KPTCL is pointing towards consultants & others for non-compliance.

Concerned Chief Engineer has been directed to look into the matter and report the same. Based on the report, KPTCL will take suitable action to provide quality power supply.

KPTCL is furnishing relevant information to the Commission and also has brought to the notice of the Commission the difficulties in implementing some of the directives.

1. Increase of 34% in tariff in one go is against the interest of Consumers.

2. KPTCL has not furnished the half yearly audited accounts as required under KERC tariff regulations.

3. Directives of the Commission are not followed including the manpower study.

The increase in ARR is 3% only and is marginal.

KPTCL has furnished its views and KERC would decide on the same.

As there are some legal hurdles, KPTCL was unable to complete the manpower study. However, internal study regarding optimum utilization of manpower is under process.

Energy projections are based on inputs furnished by ESCOMs. The estimates are on higher side due to the anticipated higher load growth in BESCOM.

KPTCL has taken cue from CERC guidelines. KERC has to look into the financial health of KPTCL also. Present charges are inadequate to cover the costs.

Loans from PFC & REC are classified as secured loans and loans from other commercial banks as unsecured. As PFC & REC have come forward to finance the entire investment, the position of unsecured loan would change.

1. The observation of KERC on KPTCL is proposing an IPO of Rs. 1000
1. Debt: Equity ratio is correct. The financial situation of KPTCL with this additional borrowing of Rs.2700 Crs. will become precarious. The debt: equity ratio would further increase with additional borrowings.

2. The investment of Rs.2700 Crs. requires sufficient planning, technological, logistical & manpower resources. KPTCL has not furnished these details.

3. KPTCL to furnish expected financial situation in the next 5 years.

Crs. This would increase the equity from Rs. 683 Crs to 1683 Crs. and would reduce the borrowings from Rs. 2700 crs. to 1700 Crs. as result the Debt: Equity ratio would come to fairly a normal level.

Action plan to execute the proposed works is furnished for the information of the objector. Past performance need not necessarily indicate the future performance. Further the load forecast approved by KPTCL is considered while preparing the action plan.

It is not possible to visualize next 5 Years income & expenditure as the same is not contemplated nor ERC regulations provides for the same.

KA11

1. Steep increase in consumer tariff is opposed.
2. Action to be taken to recover arrears of several crores from big industries.
3. There is no logic for imposing fixed charges.
4. Incentive for solar water heaters to be increased.
5. Tariff increase is not required if theft in BJ/KJ & IP sets are controlled and revenues from these consumers are recovered.
6. For mishaps where employees are responsible, the compensation should be recovered from such employees.
7. There should be accountability at every stage.

The issues raised are related to ESCOMs and not relevant to KPTCL’s ERC.

KA19

1. ESCOMs should have filed objections to ERC of KPTCL as they would be largely affected. All the 5 ESCOMs are largely guided by KPTCL and hence unbundling has not really taken place.

Reforms are a continuous process and further improvements will happen in the years to come.

The proposed investment is to the benefit of consumers as it would reduce
| KA19 | of Rs.2700 Crs is not justified. Such huge investment would put pressure on the financial position of both KPTCL & GoK. KPTCL should have provided an analysis of the impact of increase in asset on average tariff.  
3.Any tariff increase would discourage investments in the manufacturing sector in the State. |
| KA20 | 1. As per KERC planning criteria transformer loading need to be at 60%-65% and all distribution components to operate with 75% of thermal limits. The perspective plan of KPTCL has taken into account N-1 reliability criteria and transient stability analysis to determine loading limits. It is not clear how these studies led to final loading limits considered by KPTCL. The proposed excessive transmission investment is based on overly generous safety margins.  
2. The analysis lacks consideration of scenarios/sensitivities of load growth. Assumptions regarding district wise load growth, reduction in losses, open access transactions, growth in decentralized & captive generation etc is not clear from the report.  
3. The need for upgrading sub-transmission system at a large scale in one year rather than incremental up gradation over the years is not justified. Incremental investments would have reduced the tariff impact.  
4. Sub-transmission-loading level could be reduced by | loss, improve quality of electricity and create redundancy.  
This apprehension is not correct in the absence of any concrete proposal by ESCOMs to revise the retail tariff.  
KERC has directed KPTCL to program its capital works based on PRDCL report. KPTCL has used PRDCL report as the base document for its investment program.  
KPTCL has considered unrestricted scenario to have adequate redundancy in the system for reliability & quality power. Load flow & load forecast studies are done taking into consideration the suppressed demand in the field because of restricted power supply and system constraints existing in more than 350 existing stations. Open access transactions cannot be anticipated.  
The unrestricted peak load is 7007 MW and the peak capability of the transmission system is only 6200 MW. Hence, KPTCL is intending to execute as many works as possible in FY07 itself.  
ESCOMs are improving their system to reduce losses. Further other alternatives |
alternatives such as reduction of distribution losses, DSM & better Load management. Such alternatives would benefit the consumers. Coordinated planning between KPTCL & ESCOMs to select least cost alternatives for meeting future demand is required. The current proposal has not provided the comparison of such alternatives.

5. KPTCL has spent an average of 67% of the projected budget in the last 3 years. Its completion rate for new stations & lines in FY05 was 55% & 66% respectively. Based on the current progress, the achievement of capital works in FY06 would be 34%. Past trends indicate that KPTCL is unlikely to spend more than 500 Crs and KERC has to restrict the capital investment to Rs. 500 Crs.

6. Load & generation forecast are inconsistent with KERC's least cost planning criteria. Karnataka's entire deficit today occurs only during peak hours, which would be best met with peaking capacity. Therefore KPTCL has to provide detailed load forecast for base load, intermediate load & peak load. The generation plan appears to have excess base load capacity & insufficient peaking capacity. KPTCL to provide life cycle costs of all the projects proposed based on future load growth. The immediate relevance of generation forecast to the ERC of FY07 is that a different generation forecast, both in terms of total capacity & location, may alter the result of like RLMS, DSM in lighting etc are being implemented by ESCOMs. In spite of these actions taken by ESCOMs, the proposed number of sub-stations is required. The new stations are proposed in consultation & co-ordination with ESCOMs.

KPTCL accepts that the past 3-years expenditure has not exceeded Rs. 500 Crs. However to execute the proposed Rs. 2700 Crs investment in capital works KPTCL has taken the following actions:

a. KPTCL to procure transformers directly from manufactures to reduce the time of procurement of transformers.
b. Standardization of land acquisition process.
c. 13 additional divisions created.
d. Frequent TAC meetings held to clear proposals.
e. PFC & REC has assured adequate finance [up to 80% of individual project cost]

The issue raised by the objector does not relate to ERC of KPTCL. Further, the load forecast is before the Commission for approval.
the analysis, projected loading patterns and therefore the investment plan.

| KA21 | KPTCL has entrusted this task to M/s Dastur & Company, which would develop MIS to capture both financial & technical data. |
| KA21/KA25 | All the faulty meters at interface points are rectified. No IF point is under direct connection and action is taken to replace CTs & PTs in case of fault. |
| KA21/KA25 | KPTCL is filing its energy audit reports as desired by the Commission. |
| KA22 | KPTCL has initiated action for benchmarking of parameters. |
| KA22 | This is not correct. KPTCL is filing ERC as per the regulations issued by the Commission. |
| KA22 | The Conditions prevailing in Karnataka cannot be compared with that of AP. |
| KA23/KA24/KA26 | KPTCL has set out an action plan to complete the works in a time frame. KPTCL is confident of completing the entire capital works as envisaged. |
| KA23/KA24/KA26 | The revenues are insufficient to cover the costs. KPTCL is not in apposition to generate necessary financial resources to meet the financial obligations apart from the revenue required for repayment of loans etc. Hence providing for sinking fund is not feasible |
The investment program of KPTCL does not give priority for improvement of rural transmission system.

2. The EA 2003 refers to economic use of resources and optimum investments. Hence the proposal of KPTCL is objectionable as it burdens the end consumers.

Against the average annual capital expenditure record of Rs.493.08 crore, with utilization success rate of only about 67.78% during the previous three years the application by KPTCL for capital expenditure approval of Rs.2,700 crores for FY 2006-07 appears to be unrealistic. A thorough review of its project estimates and project management practices is highly advisable.

On one hand KPTCL says that it has been investing considerable resources in the past few years to improve the transmission network, and that it requires approval for a massive Rs.2,700 crore investment. The purpose of investment by the transmission utility is to not only bring down losses but also to improve the voltage level, and to cater further load growth by means of increased availability of stations and lines.

KPTCL has prepared plan of action for various stages of work besides it has prepared project estimates and taken steps for carrying out effective & efficient project management practices. The Expert Committee constituted by the KERC is looking into all these aspects and making its recommendations in the matter.
crores for FY 2006-07 for 426 capital projects; but on the other hand it also asks that the projected transmission losses of 4.18% as applied to the year F05 and F06 be retained for F07 also. In this background the public would like to know as to what is the benefit of such massive investments if the losses are not coming down by considerable margins.

The loss reduction excluding 33 KV systems is expected to be marginally below 4% provided that this investment is made.

The capital investment is made not only to reduce the losses but also to improve the quality of supply, improve quantum of supply, to meet additional market and above all to sustain the existing market.

The capital investment intends to pave way for redundancy and bring the loading of power transformer from overloading to loading to safer limits in many of the sub-stations. Further, the added capacity in existing sub stations along with that of the new sub stations will cater to the ling growth, i.e., additional market.

Whereas KPTCL has been allowed to increase its transmission charges in 2005-06 by 35% over that 2004-05, it is now asking for a further increase of 26% for the year 2006-07 over that in 2005-06. Where is the benefit of efficiency gains to the end consumers? With the need for ESCOSM to pass this additional cost on to the end consumers, there will be subsequent application for tariff review. The end consumers will strongly object to any upward revision on two successive years. How are the ESCOMS going to manage the additional burden?

As per KERC guidelines, the transmission loss which was hovering around 10% in FY-01 has been reduced to 4.18% in FY-05. This is possible only through efficient management of the system. These gains will definitely pass on to the end consumers.

Further, the contention that there will be 26% increase in the tariff to end consumers on account of increase in transmission tariff sought by KPTCL is not correct. It depends on the overall revenue deficit in the ESCOMs and not merely because of increased tariff sought by the KPTCL.

Even if the transmission sought by KPTCL is passed on to the end consumers, it will not result in tariff shock to end consumers by 26% as indicated in the objection petition but it translate to 3.93% on the projected base revenue of ESCOMs for FY07.

The past practices and performance record of KPTCL and its predecessor gives rise to the demand by its major stakeholder, the paying public.

It may be seen from our projection in the ERC filing of FY07, wherein the figures of previous years also are indicated, which show that there is increase in cost only in respect of
that the organizational management practices require a thorough review to increase the efficiency of work processes, and to bring down the cost of transmission services. There is an urgent need for more transparency; time bound action plans and individual accountability.

Since KPTCL has proposed investment in capital works programme of 2006-07 a large sum of Rs. 2700 Cr. the funding of which is through borrowings, naturally the interest burden will have to be passed on to the ESCOMs for recovery. Further, as per KERC Regulations, 14% RoE is claimed instead of 12% allowed by KERC. These increased costs are intended to increase the efficiency of the system. As the recovery through depreciation is not sufficient enough to repay the scheduled loan, KPTCL has proposed to recover additional depreciation that is permissible.

Transparency can be seen in all its activities and overall there is KERC as a watchdog and all the facts are placed before the Commission while getting approval for our proposals every year.

In Section 2.2 (Energy Audit) of KPTCL submission, it says that as on 31.10.05 only 6 meters of interface points are not working. What prevented KPTCL from ensuring that the meters of all interface points are working? In the absence of this how can KPTCL claim that it has taken prompt action? Why public should get penalized for KPTCL’s failure to carry out effective energy audit? Why should it take more than a year to replace the faulty meters with adequate quality meters? What action has been taking on the erring officials? How long will the public be expected to continue to bear the cost due to inefficiency off the KPTCL?

No IF point is under direct connection and action is being taken to replace the CTs & PTs in case of fault for maintaining 100% metering.

In order to assess the energy at IF points in case of faulty metering system, the reading of the meters upstream and downstream is considered as the case may be. If a meter at IF points on 33 KV side is not working, the reading in the 66 KV is taken and by deducting the transformer loss, the energy at 33 KV is assessed. Thus, even in case where the meter is not working, the energy can be actually determined.

KPTCL has taken action in replacing/rectifying the faulty meters by good meters.
In Section 2.3.2 KPTCL claims that the minimum voltage at Somanahalli has been improved to 380 KV in 2004-05. For what percentage of time in the year was this minimum voltage prevailed? how much money has been paid by KPTCL for importing MVAR from the national grid during 2004-05 and 2005-06? Why so? What actions have been taken to reduce this to minimum?

The minimum voltage at Somanahalli recorded was 380 KV on 18.3.2005 and during the remaining period of the year the voltage was maintained between 380 – 400 KV. There has been improved voltage at most part of the year.

Are the voltage profiles at all the major nodal points of the State within IE standards? If not, when will the same happen?

The voltage levels in all the 400 KV and 220 KV Sub stations are as per the Grid Code except in Mysore pocket and Chikkodi. KPTCL has taken action and the work already in progress to improve the voltage profile in these areas also. The work relating to commissioning of 400 KV sub-station at Mysore and commissioning of 220 KV D/C line between Mahalingapura and Chikkodi via Kudchi are also in progress.

Why the number of overloaded stations in 2004-05(as mentioned in Section 2.3.3) is still 50% of that in 2003-04? What were the difficulties in this regard, and how are they proposed to be overcome?

The number of over loaded stations have been reduced from the level of 128 Sub-stations during the year 2003-04 to 64 Sub-stations during 04-05. These 64 Nos. are loaded more than 100% and needed action on war footing, as load shedding has to be resorted to. The works are in advanced stages and in addition 125 more augmentation works are proposed to be taken up during the year 06-07 to meet the contingencies. The stations which are having loading factor of more than 0.7 have also been considered for augmentation and providing new Sub-station wherever required.

KPTCL cannot take any major credit for the improved average frequency of the network operation, because it is a characteristic of the National (or Southern Regional Grid) to which it is connected. The correct measurement should be the energy withdrawal during the year, if any, and the penalty paid to the Grid for the over-drawal as recorded in UI.

During 2004-05 KPTCL has drawn 2212 MU of energy under UI at Rs.2.01/unit. During 2005-06 upto December 2005 KPTCL has drawn 881.95 MUSS at Rs.1.53/unit.
| KB16 | What is the highest and the least percentage transmission loss recorded in the state at voltages above 66 KV during 2004-05 and the elapsed months during 2005-06? What are the average, maximum and minimum percentage losses in the following transmission voltage sections in the State: 66 KV, 110 KV, 220 KV and 400 KV? How do they compare with international and national best practices? | KPTCL has informed that the comparative information will be given only after March 2006. Similarly, the data comparison with the international and national practices can also be given. |
| KB16 | On an average how much MVARH per month is being drawn by KPTCL from the Southern Regional Grid? With the revised Grid Code stipulated by CERC, there is likely to be a fee towards MVARH from the Grid w.e.f 31.3.2006. Hence the direct and indirect benefits of having very efficient transmission system cannot be ignored. What actions have been taken to reduce the losses to the international level and in what time frame? | KPTCL on an average draws 353760 MVARH per month from the Southern Grid. No payment has been made towards Reactive Energy by KPTCL to the Southern Grid during the year 2004-05. |
| KB16 | Has KPTCL adopted a practice wherein the project reports and estimates are subjected to peer-review to verify the accuracy of the estimate and the Cost Benefit Analysis? It is an accepted practice all over the world for the projects without cost-benefit analyses are not accepted for consideration. For this reason a peer-review to verify the accuracy of the estimate and to question the Cost Benefit Analysis is generally adopted to make the project proposal more realistic. The progressive companies all over the world adopt such a practice. | All the fresh proposals for establishing new Sub-station will be placed before Technical Advisory Committee. After elaborate debate and discussions the proposals for new Sub-station will be cleared. The cost Benefit ratio, Energy Savings, Loss reductions etc., will be considered by the TAC while clearing these proposals. The schemes, which are not feasible, will be deferred by the Committee. After obtaining clearance from TAC estimates and DPRs for the new Sub-stations will be prepared and approved in accordance with scheme approved in TAC. |
In Section 3.2.1 of the submission KPTCL states that Transmission Business has thin operating margin. But the accepted wisdom all over the world is that a Transmission Business is the most profitable business because of the lower operating costs, negligible wear and tear of its assets and also the reduced risks as compared to generation distribution. Hence, if KPTCL were to have correct policies and practices, it should not be incurring losses year after year.

KPTCL has claimed additional depreciation in addition to normal revenue requirement in order to argue effectively for allowing both normal as well as additional revenue requirement. It has between argued that transmission business has thin operating margin. KPTCL is showing its RoR and RoE as **book surplus**. Considering non-release of subsidy and not allowing RoE at 14%, KPTCL has thin operating margin only in spite of adopting correct policies and practices.

The system studies were carried out for the load conditions of 2006-07 with an anticipated peak load of 695 MW by considering future additions from BTPS (500 MW), Kaiga (210 MW), Kudankulam (1000 MW) and 400 KV station at Hassan, Mysore, Narendra with associated lines.

The loss profile based on the study is in table below:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Voltage level</th>
<th>Loss (MW)</th>
<th>Loss (MU)</th>
<th>%</th>
<th>Energy Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>400 KV</td>
<td>67.18</td>
<td>302.39</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>220 KV</td>
<td>48.76</td>
<td>669.62</td>
<td>1.76</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>110 KV</td>
<td>21.56</td>
<td>97.07</td>
<td>0.26</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>66 KV</td>
<td>50.32</td>
<td>226.50</td>
<td>0.60</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Transformer NL Loss</td>
<td>28.53</td>
<td>249.94</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>316.35</td>
<td>1545.52</td>
<td>4.06</td>
<td></td>
</tr>
</tbody>
</table>

Even though more number of stations and lines are added this year, the estimated loss savings due to addition of the system is kept at same level as the loss due to addition of stations and lines will bring down the distribution losses. It is a well-understood truth that the investment made to develop transmission infrastructure was meagre...
estimated at 7.2% and 7.4% respectively.

KB16

In Section 5.9.3 of the submission KPTCL asks for an increase of ROE to 14% may be in comparison with CTU. How is its performance as compared to that of PGCIL? Whereas PGCIL is operating at a different environment of varying climate, law and order, geographical variations and facing more risks, KPTCL is relatively in safer and favorable environment. Any attempt to compare the circumstances of KPTCL with PGCIL will not be correct. Is the quality of service by KPTCL to its stakeholders of the high quality associated with 14% ROE, which is much higher than the return on most investments in the country?

KB16

If KPTCL’s past record in completing its annual project targets has been about Rs.300 crores, how can it hope to complete projects worth more than Rs.2700 crores in 2006-07? The proposal to take up 428 projects, as mentioned in the submission, in one year appears highly unrealistic going by its past record. Too many projects in one year, without corresponding HR capability, may result in lower quality of work and sub-optimal utilization of resources. The cost/benefit ratio, and energy savings for many of these 428 projects are not shown in KPTCL submission. This may indicate the incomplete project reports. Except for those projects, which have reached tender stage, and which have clear benefits of reduction in energy losses, the other projects should be prioritized to make up an overall during the past and presently due to power sector reforms on wheel, it is necessary to invest such huge amounts for improvement works to achieve the mission.

KB16

KPTCL request for RoE to 14% is based on what is allowed to Central Transmission Utilities like PGCIL etc. considering KPTCL’s low loss profile in the transmission system, it has sought 14% RoE.

KPTCL all these years was spending around 500 crores for its capital works through annual programme. In the reformed scenario of power sector, with a view to give quality power for 24 hours in a day to all consumers, it is very essential to establish many more stations to reduce the over loading of existing stations and to have redundancy for contingencies and scheduled outages. Presently none of the stations have redundancy to provide alternative power supply in case of contingencies leading to interruptions to the consumers even in Bangalore. Due to inadequate redundancy in stations the load of one station in case of failure/breakdown cannot be taken by neighbouring station KPTCL has planned basically to clear the backlog of works that should have been done in the last ten years and for putting up new station KPTCL should not wait until the existing Sub-station is over loaded & strained. In addition to new station KPTCL has proposed augmentation works and strengthening lines and new lines for
Evacuation of power in the ERC filing. Out of 428 projects filed in the ERC FY07, KPTCL is planning to complete 10 in 2005-06 and 365 works during 2006-07 and remaining works will spill over to 11th plan period. As already explained the estimate/DPR for the project will be prepared only after obtaining clearances from TAC, where all the parameters of cost/benefit ratio, energy savings will be considered.

### KB16

**What are KPTCL's figures of SAIDI and SAIFI for the years 2004-05 and the elapsed months during 2005-06?**

KPTCL would like to state that suitable software which will capture and analyze the relevant data like load, interruption, duration of interruption and adequacy will be developed and put in place. This requires some more time.

**How many projects of KPTCL costing over 1 crore have cost and time overrun during 2004-05 and the elapsed months during 2005-06? What is the combined loss to KPTCL due to these delays? Has KPTCL adopted modern project management techniques to reduce such losses?**

To overcome cost and time overrun of the projects KPTCL has taken action for procurement of transformers for the proposed Sub-stations and augmentation works, as lead time is longest for procurement of power transformer for the turnkey contractors. The turnkey contract will be minus the power transformer. With this arrangement the projects will be completed within 4 to 5 months as against 12 months as fixed earlier.

**What is KPTCL's policy on the network optimization study?**

KPTCL has conducted detailed study in preparing prospective plan for the 10th and 11th plan based on the report submitted by PRDCL. The PRDCL has conducted load flow studies and load forecast studies and submitted their report. Prospective plan has been prepared by KPTCL for 10th and 11th plan and works taken up accordingly. The additional works are taken up based on the study conducted by KPTCL subsequently.

Perspective plan takes care of mitigation of risks. The same is envisaged in our Vision Document – Vision 2020.

**Whether KPTCL’s organization level personnel per MW of power handled compares favourably with the best at national and**

Yes. At present 1.32 MW per employee (6495 MW/4910 employees).
| KB16 | KPTCL should come with a clear set of action plans along with definitive time frame to improve the quality of its services to the international levels.

In the efficiency measures benchmarking against international standards is critical. Is KPTCL convinced of the need for such international benchmarking, and if so, what is its action plans in that regard?

KPTCL should be following the most appropriate maintenance philosophy suitable to its environment, so as to keep the overall cost of O&M at the minimum. What preventive maintenance practices are being adopted by KPTCL? |
|---|---|
| | KPTCL has published its Vision Document 2020 and has also prepared its perspective plan. These initiatives would go a long way in establishing credibility to handle all the contingencies. KPTCL is extremely happy that the is objector listing out the public expectations from KPTCL. KPTCL assures the public that it would ensure:

i. Transparent and accountable systems
ii. Benchmarking efficiency measures
iii. Appropriate maintenance philosophy |

**Objections raised during Public Hearing:**

In addition to the above the following additional points were presented during the public hearing held on 21.03.2005:

**a. Chamber of Commerce**

The proposed capital investment plan has not been properly appraised. While the energy handled has been reduced compared to PRDCL’s report, the investments have increased. Further, the loss level in percentage has not been reduced in spite of huge investments. The monopolistic attitude of the organization still continues and the inefficiencies of the organization should not be passed onto the Consumers. KERC has to rescue the Consumers. KPTCL has to generate the necessary funds by improving the efficiency and not by increasing the tariff.

**b. Consumer Care Society**

1. The tariff hike even after disallowing AAD would be 30% is too high.
2. The cost of surplus staff should not be loaded on to the consumers.
3. KPTCL is unlikely to spend even Rs. 1755 Crs and expressions of good behavior of KPTCL cannot be construed as their efficiency to implement such huge capital works. There is no example of any company investing 3.5 times to 5 times their capital investments in a year. Also such huge investments may result in assets being idle or under utilized.
c. Bharatiya Kissan Sangha, Udupi

1. KPTCL & ESCOMs are not independent as they are represented by a common Chairman. This is against Section 39(1) (e) of EA 2003. Since ESCOMs are not independent they have not opposed the ERC/tariff filings of KPTCL.

2. In the last 6 years KPTCL has reduced the losses from 10% to 4.18% with less investment. However, in spite of investment of Rs. 2700 Crs KPTCL has not proposed any loss reduction in FY07, which is surprising.

d. Chamber of Commerce, Gadag

1. The time for obtaining the ERC documents and filing objections is insufficient and this shall be increased to at least 15 days. Also arrangements shall be made to make available ERC documents of KPTCL at ESCOM’s corporate offices.

2. KPTCL has to conduct time & motion study.

3. The expert Committee members are Ex- KPTCL officers. Hence, the report has to be reviewed by an outsider like IISc etc. Also Ex-Member of KERC cannot be member of expert committee as per EA 2003.

e. FKCCI

1. It is observed that for a mere 15% increase in expenditure, a whopping 34% increase in tariff is sought. For the increased in the input energy there should be corresponding consumption base. Most of the industries are in service Sector and no energy intensive industries are in the offing in the State.

2. Clarity of thought and clarity of perception has to go hand in hand.

3. Expert Committee report needs to be examined by the Commission as the Committee may have overlooked some of the issues.

4. Most of the transformers proposed for augmentation/replacement are loaded to 70% during peak time, which last for 1-2 hrs in a day. As per the prevailing technical standards the transformers can be loaded up to 100% and also overloaded by 20% for a short duration. Further, in some of the sub-stations the transformers are not in parallel operation. Considering the redundancy available in the existing transformers and the load growth in the range of 7%-10%, such huge investments is uncalled for in the next few years.

f. BWSSB:

1. The proposed investment is based on PRDCL report, which has not looked into the financial aspects. Any investment proposal for tariff should be based on financial requirements in addition to technical requirements.

2. The existing problems of KPTCL are due to deficiencies that have occurred over a number of years and due to flaws in policies. These defects cannot be rectified in one year and requires time. Performance of KPTCL cannot be compared with that of Aptransco.

g. IWPA

Open access is an avenue for revenue for KPTCL. It could augment its revenues by providing accessibility to its network. KPTCL is loosing these revenues that could have
been accrued for the want of wheeling and banking agreement. Hence standard wheeling and banking agreement has to be put in place.

**h. Y.G. Muralidhar, Consumer Advocate, KERC**

1. The mandate for the Commission is to look into financial viability of the licensee, bring in efficiency in the sector and protect consumers' interest. It is noted that in other sectors like telecom and Aviation, the competition has brought down the tariffs. Even railways, which is a government entity, has not increased the tariff for consumers. However, in power sector the tariff is being increased regularly. KERC has to look into this matter.
2. The transmission expenses are controllable expenses. Hence KPTCL has to control its expenses instead of asking for tariff increase.
3. The average inflation rate is about 5%, whereas the increase sought by KPTCL is 40%, which is not justified.

**i. Gautum Menon, ISEC**

1. KPTCL has to file depreciation schedule along with ERC.
2. KPTCL has proposed 60% investment for improving the rural T & D system. Returns from rural sector are yet to be achieved. This is a matter of concern.
3. Some of the figures in the tables in ERC are not matching.

**J. Venkatasubba Rao:**

1. All transmission expenses have to be benchmarked with the best in the country.
2. KPTCL should adopt best practices in project management.
3. Dream Capital investment of KPTCL is very difficult to implement.
4. The link between RLMS and the proposed investment is missing. At least in places where RLMS is implemented, the transformer replacement has to be reviewed.
5. Load flow is at macro level and the situation at micro-level is different. 220kV substation will not solve the local problems. 110 kV/66 kV system needs to be improved.
6. Modern maintenance techniques to be implemented by KPTCL. Otherwise the intended benefit cannot be realized.
7. ESCOMs have to rethink about the implications of long-term investments.

**h. MD, CESCorp.**

1. ESCOMs input have been considered while finalizing capex.
2. The Capex in rural area mainly depend upon the hours of 3-phase supply given to IP sets.
3. ESCOMs have the highest risk and the RoE given to Transmission licensee/generators is high.
4. Loss is at the optimum level of 4.18% and no further investment is required. The reduction in loss is due to various factors like improved frequency and investment is not the only factor.
i. MD, KPTCL responded as follows:

1. The power sector in the state is suffering from a disease, which requires holistic treatment, and not in parts. The existing situation is due to non-investment in the sector. KPTCL could not spend the budgeted investments in the last decade due to poor planning and execution. There are peak constraints in the system and KPTCL is unable to evacuate power in spite of power availability.

2. The proposed capital works would be done on a turnkey basis less transformers. The transformers would be procured directly by KPTCL and delivery schedule is synchronized with the execution of work. This would reduce lead-time for transformer procurement.

3. The PRDCL report has been misinterpreted by BWSSB. As per the terms of reference, the study was restricted to look into technical aspects only. Based on this proposal KPTCL has worked out the financial requirements and has made the proposal.

4. Huge investments are not new in the sector. In UP Rs. 3000 Crs is being spent under RGGVY scheme. Therefore opportunity has to be given to KPTCL to prove its efficiency. Approval of Rs. 2700 Crs would give leverage to execute at least Rs.1700 Crs. Further to remove constraints such huge investment is called for. KPTCL was unable to evacuate JTPCL power under open access due to transmission constraints. Similar experience is being faced to supply quality power to wheel & axle plant. Further the standards of performance specified by the Commission are too high and to meet these standards investments is necessary.

5. Proposals are examined by TAC and prioritized. The proposed stations are evenly spread out throughout the State and are required.

6. Transformers cannot be loaded to 100% and 20% redundancy is required. Situations in field are different from lab conditions.

7. ESCOMs are independent except for staff re-allocation. Staff absorption is in the anvil.

8. The high employee cost is due to pension contribution, which is not provided by GoK.

9. The benefit of loss reduction would be reflected in the ERC of ESCOMs and the distribution loss would be around 20%.

10. Zonewise/Circlewise energy audit is not prepared in KPTCL. Energy audit reports of ESCOMs would be made available on their websites.

11. IP set metering would be taken up to quantify the consumption by this sector.

12. KPTCL is not going for IPO and the requirement of funds would be through borrowings.

13. Interest on existing loans is uncontrollable.

14. As and when receivables from GoK are released, the debt-equity position of KPTCL will improve.

15. RLMS is implemented at the DTC level and it would only give marginal relief to Sub-stations of KPTCL.

16. KPTCL is open to benchmarking. Project management is already being implemented and one officer will be responsible for execution of each proposed station.

17. Capacity to pay is a matter of concern. It is dependent on hours of quality supply. More than 70% of the consumers would pay if the quality in supply is maintained.

18. AP state has large CGS share compared to Karnataka which brings down the overall cost in AP. Further, AP has distributed generation which reduces losses.
whereas in Karnataka load center is mainly in Bangalore while generators are situated in North Karnataka.

19. In AP each substation caters to 94 sq. kms area whereas in Karnataka it is 239 sq. kms/substation. In order to reach AP standard the proposed investment is required.

Considering all the above factors KPTCL requests the Commission to approve not less than Rs. 2700 crores for Capital Investment for FY07 and the proposed transmission tariff of 26.06 paise per unit.
### ERC OF KPTCL FOR FY 07

#### OBJECTIONS WITH AFFIDAVIT

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<td>25.01.06</td>
<td>Dy. Secretary, Karnataka Chamber of Commerce and Industry, Chamber Building, Jayachamaraj Nagar, Hubli – 580 020.</td>
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<td>Chief Administrative Officer Cum Secretary, BWSSB, Cauvery Bhavan, Bangalore –560 009.</td>
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<td>Chairman, Electricity Sub Committee, Gadag Dist. Chamber of Commerce and Industry, Registered Office, at APMC Road, Gadag –582 101.</td>
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<td>Y.V.swathanarayana, Co-ordinator, Electricity Consumers Network (ECON), Consumer Care Society, Consumers Forum, Balakedarara Hitarakshaka Sangha.</td>
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<td>General Secretary, Akhil Bharatiya Grahak Panchayat, No.356, I Stage, Industrial Suburb, Vishveswara Nagar, Mysore – 570 008.</td>
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<td>D.Narasimha Rao, Visiting Faculty, Indian Institute of Management, Bannerghatta Road, Bangalore – 560 076.</td>
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<td>A.Ramdas, Ex-MLA, 1056, Suguna Mrga, Siddartha Nagar, Mysore.</td>
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<td>K.Ravindra Prabhu, General Secretary, KIADB Industrial Area Mfrs. Association, (KIMA) NO.C-39, Hebbal Industrial Estate, KRS Road, Mysore – 570 016.</td>
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<td>Sathyanarayana Udupa, Secretary, Bharitiya Kissan Sangha, First Flolor, Vasuki Towers, Udupi Taluk and District.</td>
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<td>Shankar Sharma, 1120, 6th Main, K Block, Ramakrishnanagar, Mysore – 570 023.</td>
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