

# TPC's Response to Suggestions/ Objections on TPC's ARR 2003-04 and 2004-05 by Prayas

## 1. Introduction

TPC has been filing its Annual Accounts every year with the Chief Engineer (Electrical), Government of Maharashtra as per the requirements of The Indian Electricity Act 1910. As can be observed from the additional information made available by TPC (Vol III B), TPC has submitted its Annual Accounts upto the financial year 2002-03. The Government of Maharashtra auditors audit the Annual Accounts. Therefore, it is not entirely correct that performance review of TPC is being undertaken for the first time after the constitution of MERC.

## 2. Major cost components of TPC ARR

No comments

## 3. Fuel related Issues

Coal calories received and burnt: The average calorific value (CV) of coal receipt for 2002-03 is shown as 6083 Kcal/Kg while that of consumption is 5125 Kcal/Kg.

The calorific value of coal received is on Gross air-dried basis (GAD basis). However, the calorific value of coal consumed is taken as "As Fired Basis".

The coal used was Indonesian coal having total moisture of the order of 23-25% and inherent moisture of 11-12%. As a result, GAD CV of 6083 Kcal/Kg becomes 5126 to 5323 Kcal/Kg (As Fired Basis CV).

Generally, "As Fired Basis CV" further deteriorates due to water spraying for the purposes of dust suppression.

Less usage of coal than allowed: We understand that Prayas has calculated coal consumption per day on a 365 days basis and not on running hours of the unit. The calculation, thus, does not include unit outage. Based on running hours, actual coal consumption marginally goes up as shown under:

	<b>2000-01</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>
Actual Consumption (MT)	234770	457572	945911	142500	1934865
Unit Running Hrs (Mrs)	8451	7605	8436	8184	8760
Consumption/Day(MT/Day)	667	1444	2691	4179	5300
Allowed (MT/day)	1470	2205	2940	4370	5800

Actual coal consumption in 2000-01 & 2001-02 is lower mainly due to the following reasons:

- Coal with sulfur of the order of 0.3% to 0.4 % was being fired. Therefore, to remain in SO<sub>2</sub> emission level of 15 MT/Day, coal firing was restricted to meet the generation level and to use low sulphur oil.
- However in September 2001, Indonesian coal with 0.1 % sulfur was fired on a trial basis. After successful trial and approval by BHEL with respect to suitability to fire in the boilers on continuous basis, use of Indonesian coal was started on permanent basis in 2002-03.
- The gap in 2002-03 & 2003-04 is of the order of only 200 MT/day, which is mainly due to less usage of coal during monsoon arising out of choking & coal slurry problems.
- In 2004-05, average coal consumption assumed is 5300 MT/day because of reduction of load at night due to lower offtake by BSES. It may be pertinent to mention that at full load, the maximum coal firing for the present quality of coal being used at Trombay is about 5700 MT/Day only.
- Besides, permissions for increase in coal firing were received in May 2001 (2940 MT/day) & May 2003 (5800 MT/day). It may kindly be noted that it takes some time to increase coal firing to permitted levels because of procurement and logistics issues.

MERC's order in Case 16/2002: Subsequent to the Hon'ble Commission's order, TPC submitted details of its FAC calculations to the Commission. It may be pertinent to note that TPC's FAC formula has been approved by the Government of Maharashtra and are also audited by Statutory Auditors. TPC has submitted its ARR for 2003-04 & 2004-05 to the Hon'ble Commission and has also proposed FOCA formula for approval.

#### **4. Merit Order Dispatch**

TPC appreciates the analysis carried out by M/s Prayas in arriving at the fuel costs using Merit Order. TPC would, however, like to make the following points:

- TPC has in its ARR used Merit order for its own generating stations only and not for combined generation of BSES and TPC
- Prayas has not factored the minimum load requirements of generation on Trombay Units below which the units cannot be operated
- Unit 7 is a gas based unit and has to be operated as and when the gas is available. Further gas (cannot be stored in that form) being cheapest source of generation would be consumed first which may necessitate backing down of other units.  
As mentioned in the ARR, load variation on Unit 4 is not possible and hence is a must run unit to that extent. In case Unit 4 is shutdown, it may entail purchase of power from MSEB on various occasions in a day but mostly in peak hours. It must be noted that MSEB itself suffers from deficit of power in peak hours and hence is not in a position to supply power to consumers in Mumbai on a long term basis. Any such purchase from MSEB in peak hours would have to be done at the cost of load

shedding of MSEB's consumers in its area of supply. Prayas in its own objections has requested Hon'ble Commission to ensure that MSEB does not provide power to TPC at the cost of carrying out load shedding in Maharashtra.

- iv. Keeping the above factors in mind, TPC has followed merit order for estimating the fuel cost for 2003-04 and 2004-05.
- v. On the principles of basing merit order on effective available capacity (MW), it may also be pertinent to identify an occasion when the principle advocated in the objection may not be appropriate in arriving at the Merit Order.

In practice it may be noted that generation on Trombay Unit 5 & 6 are being dropped on a daily basis to about 200 MW each.

### **5. TPC - BSES Arrangement**

TPC itself has been pursuing since last six years a power purchase arrangement between TPC and BSES with standby support from MSEB. TPC therefore welcomes Prayas suggestion in this regard. It must, however, be noted that TPC has made substantial investments in the Mumbai license area to ensure quality and reliable power supply to consumers in Mumbai. Therefore, it must be ensured that the assets are appropriately utilized and TPC is also able to recover its investments.

It may be pertinent to mention that TPC and BSES are already in discussions on a power purchase arrangement.

### **6. Profit and Income Tax**

While TPC is in no position to comment on figures mentioned for MSEB and NTPC, it has provided all necessary details about its own profit and tax calculations.

### **7. Capital Expenditure**

TPC's major offtakers of power are its licensees - BEST and BSES. Subsequent to the commissioning of Dahanu Thermal Power Station, the power offtake by BSES has been reducing over the years and has almost halved. In order to improve the utilization of its assets and also to diversify its consumer base, TPC has exercised its right in the retail distribution segment.

TPC's capital expenditure is primarily aimed to achieve:

- a) Ensure safety and security of its hydro plants
- b) Ensure quality and reliable power supply to consumers
- c) Technology upgradation
- d) Meet future growth in demand

TPC follows a practice of continuously appraising the schemes contemplated under its capital expenditure program. Accordingly, the schemes may be modified in terms of the implementation schedule, technology to be used etc. The examples pointed out in the objections are as a result of this continuous appraisal process.

With respect to the examples mentioned on the appropriateness of the schemes, TPC would like to submit that its has provided details of major schemes in its ARR as well as additional submissions to the Hon'ble Commission. However, the brief response to each individual example is as below:

**Purchase of helicopter:** TPC's hydel generating stations are located in remote areas. The hydel plants are connected to Mumbai by a vast expanse of transmission lines constructed on rough terrain not easily accessible by road. As already explained in the additional submissions, the helicopter was purchased for surveillance of the transmission lines and also to be able to reach the hydro units within a short time in case of an emergency.

**Khopoli tail race:** As already explained in the additional submission, the scheme is aimed at utilizing the additional head available at the tailrace of the khopoli generating station. The per unit cost indicated in the objection appears to be high as it may be based on cost in the initial years. The benefits from the scheme would be available for the life of the generating station and hence it is not appropriate to judge the benefit on the initial years cost only. Besides, the benefit with hydel generation is that there is no fuel price risk.

**Network development activity:** It may be noted that TPC has a license to supply to all consumers in its license area, which fact has also been acknowledged by the Hon'ble Commission in its order dated July 3, 2003. As such, it is necessary for TPC to create a backbone of network to ensure continuous and quality power to its existing as well as prospective consumers. Hence the Capex is towards such supply. The Hon'ble Commission has temporarily restrained TPC from supplying to consumers with less than 1 MVA load till a level playing field is established. In anticipation of this restraint being lifted by the Hon'ble Commission in due course of time, TPC would need to create an appropriate network.

Generally, an expenditure is termed as capital expenditure if it would increase the life of the asset or lead to efficiency improvement. It would be extremely difficult to accurately define an expenditure as capital in nature or part of normal operation and maintenance expenditure in view of the vast classification of assets. Accordingly, based on its judicious estimates, TPC has been classifying expenditure as capital in nature or part of normal operation and maintenance expenditure.

On the issue of further details on proposed schemes, TPC would like to submit that specific details required to establish the prudence of the schemes would be provided by TPC.

## **8. Sourcing of capital investment and normative capital expenditure**

Tata Power has raised various international debts/equities to meet its major capex requirements, the same has changed from time to time keeping in view of changing capital/debt markets.

With regard to appropriate Debt to Equity Ratio for financing capital expenditure -

- TPC has been financing capital expenditure by using internal accruals in the absence of

any norms in the Sixth Schedule of the Electricity (Supply) Act, 1948. Debt equity ratio of 70:30 has generally been applied for determination of tariffs of green field generation projects.

## **9. Foreign exchange (Forex) write-off, Reserves & Special Appropriations**

Forex write off: The amount of Forex write off in any year for a loan is dependent on the outstanding balance of the loan in the year *in foreign currency*, amount of loans repaid and amount of liability created due to increase/decrease of liability on account of forex variation. Hence when the repayments are not uniform, it is likely that there would higher write offs in some year as a percentage of the loans

Contingency Reserve: TPS's appropriations to Contingency Reserve is in accordance with the provisions of the Sixth Schedule and as provided by law. It must be noted that this practice is consistent with the practice adopted by other utilities including AEC, SEC.BSES, CESC, etc.

The amounts vary with the size of operations of different utilities and various other parameters.

The treatment given to the Contingencies Reserve for Capital Base workings and the utilization of such reserve is also as per the Sixth Schedule to the Electricity (Supply Act), 1948.

Since, the norms were incorporated in the prescribed laws after taking into consideration various perspectives, it would not be appropriate for either TPC or Prayas to question their appropriateness of the statute which governed the tariff.

Debenture Redemption Reserve: The returns from this reserve are not included in the revenue requirements and hence the request of Prayas is not warranted.

Investment Allowance Reserve: Creation of Investment Allowance reserve was a requirement under the Income Tax Act. The Investment Allowance Reserve is deducted from the capital base this as per para V-A of Sixth Schedule to Electricity (Supply) Act, 1948.

Special Appropriations towards Project Cost: These appropriations were made after obtaining requisite approvals and as provided in the Sixth Schedule of the Electricity (Supply) Act, 1948. The appropriations are also deducted from the Capital Base while computing the reasonable returns, and hence the apprehensions expressed by Prayas are misplaced. TPC's ARR is already reduced to the extent of returns on the Special Appropriations made already.

It is worth to note that whilst the related fixed assets are depreciated, the original amount of Special Appropriation towards project cost is deducted from the Capital Base although the related assets get fully depreciated but the Special Appropriations against it stay undepreciated leading to undue suppression of the capital base. This benefits the consumers.

Prayas suggestion of reducing the assets by Sp. Appropriations before computing depreciation is against prudent principles of accounting and also para XII of Sixth Schedule of Electricity (Supply) Act, 1948.

Deferred Taxation Liability Fund Investments: These have been made with appropriate Government approvals and are for a specific period. Hence, the same are in consonance with the prescribed laws & accounting standards.