

**BEFORE MAHARASHTRA ELECTRICITY REGULATORY COMMISSION,
MUMBAI**

Comments / Suggestions on
**Long Term Power Purchase Agreement between MSEDCL and Lanco Energy
(Case 27 of 2006)**

By
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Introduction

Maharashtra has been facing severe power shortage since last few years. Unfortunately MSEDCL has failed to come out with an integrated capacity addition plan for the state to meet present shortages and future demand. Sadly, there is no scientific demand forecast submitted by MSEDCL despite repeated requests. There is no doubt that peaking power is required to meet the growing peaking demand in the state and presently no peaking plants are being envisioned. In this context, the proposal submitted by MSEDCL for long term purchase of 500 MW of hydro power looks attractive. However, in the petition MSEDCL has failed to substantiate their claims of availability of 500 MW of peaking power. We have following concerns regarding this issue:

1. No Technical Validation Session

To the best of our knowledge, regarding this matter the Commission did not hold any technical validation session which is meant for pointing out data inconsistencies and deficiencies in the petition. As the Commission has directly gone ahead with the public hearing process, we are surprised that whether the Commission and its consultants are satisfied with the data MSEDCL has submitted. We feel that the proposal submitted by MSEDCL has serious data gaps and lacks clarity.

2. Technical Details and Capital Cost

There are two ways in which MSEDCL can procure power –

- (i) Through competitive bidding route and
- (ii) PPA route where capital cost, technical parameters and tariff of the project are approved by MERC.

Unfortunately, the present proposal of MSEDCL falls in neither of the cases.

Design Energy and other key technical details of the project are not provided by MSEDCL. The relevant section in the draft PPA has been left blank. This is the most critical data necessary for project evaluation and determination of the capital cost. Therefore we request the Commission to direct MSEDCL to submit the DPR for TeestaVI project which should contain all necessary technical details of the project. The capital cost of the project is claimed to be Rs 2997 Cr i.e. Rs 6 Cr/MW. As Teesta VI is a hydro project, its tariff depends only on its capital cost. Therefore, approval to any generation tariff for the project essentially implies approval of the capital cost of the project as well. Unfortunately, MSEDCL has not provided any basis for the capital cost or its break up into various components. Therefore, we request the Commission to direct MSEDCL to submit detailed break-up of the capital cost and scrutinize the capital cost of Teesta VI carefully.

3. Seasonal Variation in Power Generation

Surprisingly, there is no information on the generation pattern and seasonal variation in the generation from the Teesta VI project. MSEDCL claims that power from TeestaVI would be available during the peak demand period in the state. Being a run-of-river project, power generation from Teesta VI depends on the water flow in the river. According to the Environmental Impact Assessment for Teesta VI (prepared by Forest Environment & Wildlife Management Department, Government of Sikkim), design discharge required for rated capacity generation is 531 m³/sec. The variation of flow availability in Teesta river between the lean season and the monsoon months is significant. According to the Environmental Clearance granted to Teesta VI by MoEF (vide letter dated 21st September 2006), the average lean season flow is only 82.5 m³/sec out of which 10% is the minimum flow required in the river. Thus, on an average, available discharge for power generation during lean season is only 74.25 m³/sec which translates to average availability of only 14% of the installed capacity or 70 MW. Being a Himalayan glacial river, lean season for the Teesta river is normally between November and April. Therefore, full power output of 500 MW may be available only between June and September of every year when the water flow is more than 531 m³/sec. Looking at the peak demand seasons in Maharashtra which is December-January and April-May, it is clear that full power from Teesta VI would not be available during the peak season. This is corroborated by the preliminary observations of CEA (through letter No. 504/15/2006/HPA/197 dated 25th July 2006) which point out that the plant will generate at full capacity only during three monsoon months. CEA also observes that power generation from Teesta VI is fully dependent on the outflows of Teesta V project which

is located upstream of Teesta VI. This implies that Lanco will not have any control over power generation from Teesta VI even during monsoon months. Therefore, we request the Commission to take a serious note of this factor and NOT treat TeestaVI project as a peaking plant. We also request the Commission to consider the hydrological and other meteorological and geological factors carefully and then estimate the monthly and hourly generation of the project.

4. Generation Tariff

- 4.1. MSEDCL has proposed a generation tariff of Rs 2.32/kWh and has claimed that the PPA is like a “Energy Contract” where the power purchase rate is going to remain fixed for 25 years. However, this is never been mentioned clearly in the PPA. On the contrary, in Schedule D of the PPA, where tariff for 25 years is worked out, annual sales to MSEDCL of 2121 MU is taken as an assumption for estimating the tariff! This implies that if there is a reduction in power generation from TeestaVI, power purchase rate would go up. If MSEDCL wishes to go for Energy Contract, it should explicitly mention the same in the PPA. Therefore, we request the Commission to ascertain that tariff should not increase due to lower energy generation from the project.
- 4.2. Lanco has envisaged the Debt:Equity ratio of 80:20 for financing of the project (70% primary loan and 10% secondary loan). But, while working out the tariff, D:E ratio of 70:30 has been used which results in higher generation tariff. Therefore, we request the Commission to ensure that the benefit of higher debt component should be passed on to consumers through reduced tariff.
- 4.3. While calculating the landed cost of power at MSETCL boundary, MSEDCL has not considered the CTU charges for ER which may be assumed to be at the same level of the CTU charges for WR i.e. 20p/kWh. In effect, landed cost of power at MSEDCL boundary is well above Rs 3/kWh if one adds the STU charges as well.
- 4.4. In effect, Present proposal of MSEDCL implies a long term obligation of 25 years for a non-peaking power which is primarily available during monsoon period at a landed cost of more than 3 Rs/kWh, which appears quite high.

5. Prayers

In light of above, we request the Commission to:

1. Direct MSEDCL to submit the DPR for TeestaVI project which should contain all necessary technical details of the project which have significant bearing on tariff and overall viability of the project for MSEDCL and its consumers.
2. Direct MSEDCL to submit detailed break-up of the capital cost and scrutinize the capital cost of Teesta VI carefully
3. NOT treat TeestaVI project as a peaking plant owing to its hydrological constraints
4. Ascertain that tariff should not increase despite lower energy generation from the project
5. Pass on the benefits of higher Debt component to the consumers
6. NOT to approve the PPA without getting details of the generation and capital cost
7. Allow us to make a presentation before the Commission during public hearing on 9th January 2007 at Mumbai.

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