

BEFORE THE MAHARASHTRA REGULATORY COMMISSION, MUMBAI

Filing No: _____
Case No. 42 of 2017

Date: 15^h May 2017

IN THE MATTER OF

Suo-moto hearing to review the status of upcoming generation projects of MSPGCL as per the PPA signed with MSEDCL, and Cancellation of certain other upcoming Units and their consequent removal from PPA's. - Case no 42 of 2017

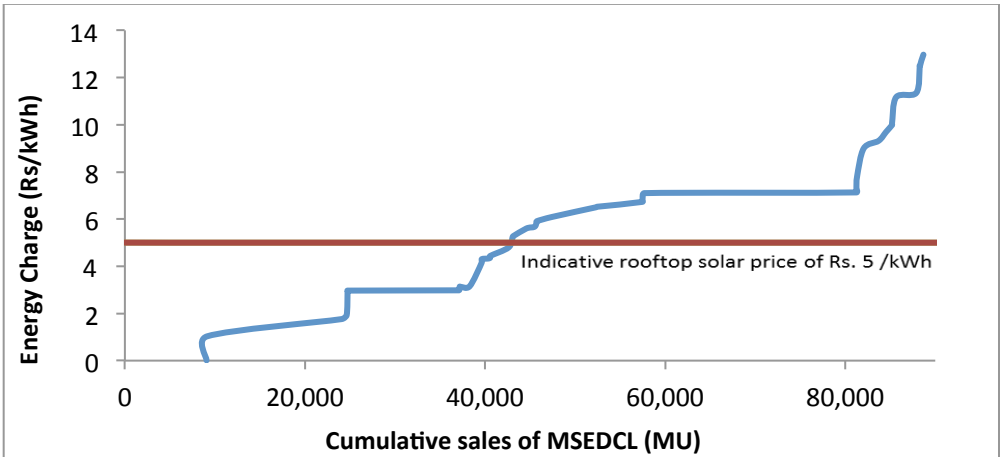
Prayas (Energy Group), Pune

Consumer Representative / Applicant

SUBMISSION FROM PRAYAS (ENERGY GROUP) REGARDING THE MATTER MENTIONED ABOVE.

1. As per the MERC notice dated 24th March 2017 (No. MERC/Case No.42 of 2017/01726), the MERC announced a hearing to undertake a suo-motu review of the status of upcoming generation projects of MSPGCL. A hearing in this regard was conducted on 20th April 2017. Prayas (Energy Group) {henceforth referred as "PEG"} was present at the hearing and this submission is in the same regard.
2. **Welcome initiative:** Power purchase planning is one of the most crucial functions of a distribution company as it accounts for more than 70% of its overall revenue requirement. Given the possibility of migration, continued high reliance on short-term market for power procurement, increase in open access and rapid reduction in renewable energy prices, capacity addition by discoms has become challenging. MSEDCL is already power surplus and plans to back down significant capacity (more than 4000 MW) in the next few years. In light of the seriousness of this issue, the commission's decision "*to initiate a suo moto proceeding and hear MSPGCL on the determination of Capital Cost and Final Tariff for New Units in accordance with the Regulations and cancellation of certain other upcoming Units and their consequent removal from the PPA's.*" is a welcome and much needed initiative.
3. **Scope of the review:** MSEDCL purchases power from central, state and private generating stations. Most of the PPAs contracted with private generators in the last few years are under section 63 whereas the capacity tied up with state and centre sector plants is under section 62. From MSEDCL's point of view its demand as well as capacity from all these sources needs to be considered in a holistic way otherwise there would be a danger of not factoring in certain capacities and their slippages. Hence, we request the commission that this review should not be limited to MSPGCL but should also include all the capacity that has been contracted by MSEDCL, but is yet to be commissioned. Specifically, the review should cover all long term power purchase contracts and MoUs of MSEDCL with centre, state or private projects.
4. **Demand assessment:** Demand forecasting is the first step of any capacity addition planning process and therefore such review should be based on a sound and rational estimation of MSEDCL's demand. In this regard following points need to be considered:
 - a. **Sales migration:** More than half of MSEDCL's sales are higher than cost of rooftop solar PV installation. Figure 1 below shows this. Considering this and the fact solar PV prices have been rapidly falling, one can expect significant sales migration in the next few years. Moreover, despite the levy of additional surcharge rising tariffs will also increase open access sales and migration due to captive power options.

Figure 1: Comparison of energy charges of MSEDCL sales and indicative price of rooftop solar (2016-17)

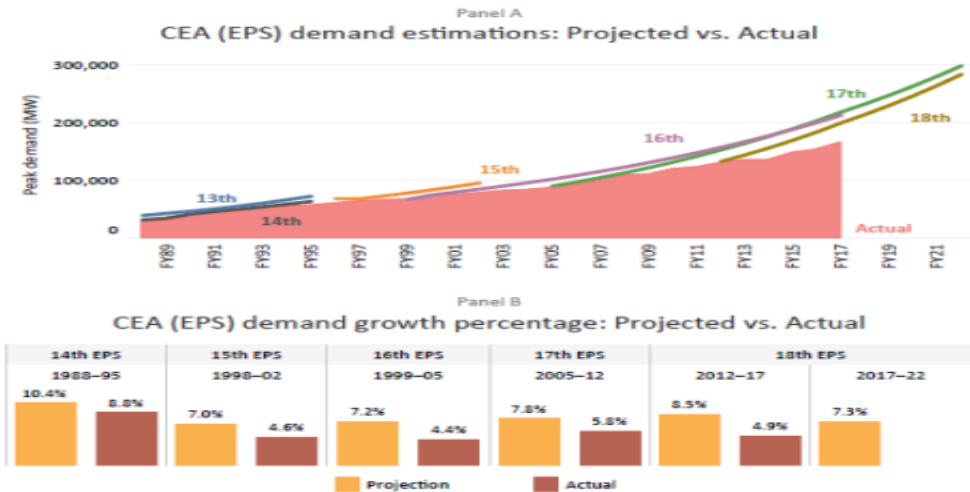


Source: PEG analysis based on tariff and sales approved in MSEDCL tariff order dated 3rd November 2016

- b. Unreliability and non-applicability of CEA estimates: MSEDCL has always relied on CEA’s EPS estimates and has avoided undertaking any rigorous, independent and scientific demand assessment exercise on its own. The CEA estimates have consistently over-projected demand as shown in Figure 2 below. Panel A of the figure shows the consistent over-estimation of peak demand from the 13th EPS to the 18th EPS. Panel B shows that the growth rates for peak demand in every round have been ambitious. In past, when MSEDCL’s overall demand was growing at a rate that was much higher than the rate of its capacity addition, such over-projection did not matter because the projected capacity was never added to that extent. However, the situation is starkly different now. MSEDCL has more than 4000 MW of surplus capacity and negative growth rate for some of its high paying consumers.

The EPS demand estimates for the utility includes demand from open access consumers and does not have special provisions to account for consumers with rooftop solar installations. Under such circumstances, it would be highly incorrect to rely on CEA estimates, especially because with increasing open access and captive consumption, the EPS estimates at state level do not represent utility’s demand anymore. The projected growth rates in each EPS has been high even though with the revision of base in each EPS, there is downward revision of total demand. The figure shows data till the 18th EPS. It is quite possible that the 19th EPS also shows a fall in demand projections due to revision of base year for projections but still continues to project a high growth rate for the future. It is important that MSEDCL should follow the MYT regulations and project demand rather than relying on EPS estimates.

Figure 2: CEA demand projections across various EPS rounds¹



Source: PEG analysis based on projections from various EPS rounds and actual peak demand reported by CEA

¹ Peak demand numbers for 2016-17 are based on CEA estimations in the load generation and balance report. The growth rates considered in Panel B reflect the growth rates between the years 1988-98 to 1994-95 for the 14th EPS period and so on.

c. Emerging trends:

- i. The draft National Electricity Plan published by CEA notes that: *“It is expected that the share of non-fossil based installed capacity (Nuclear + Hydro + Renewable Sources) will increase to 46.8% by the end of 2021-22 and will further increase to 56.5% by the end of 2026-27 considering capacity addition of 50,025 MW coal based capacity already under construction and likely to yield benefits during 2017-22 and no coal based capacity addition during 2022-27.”* Further, the study projects PLFs of 45%-55% for all the coal-based capacity in the medium and long term. Thus, the broader trend suggests a shift away from long-term base load contracts.
 - ii. In a recent development, the Uttar Pradesh government has cancelled the bids conducted in 2016 to procure 3,800 MW of power from independent power producers². According to media reports the decision was taken after the central power ministry and Uttar Pradesh Power Corporation (UPPCL) observed that adequate electricity would be available in the state between FY18 and FY22.
 - iii. The recent bids for solar PV resulted in price discovery of Rs. 2.44 per unit³ for 500 megawatt (MW) of capacity at the Bhadla solar park in Rajasthan. News reports indicate that the winning bid was not an outlier as the other bids were in a narrow band with a difference of only 1 or 2 paise per unit. The earlier lower bid discovered was Rs. 2.62 per unit⁴ in a bidding round concluded just a few days before this discovery. Such discoveries and the falling prices of storage options indicate that solar is now in a position to seriously compete with conventional generation sources. Hence, in terms of choosing least-cost options for power procurement, any discom will have to factor in these development and device its plans accordingly.
- d. Compliance with MYT regulations: The regulation 19 of the MYT regulations 2015 requires all distribution companies to prepare a detail power procurement plan. The clause 19.2 states the following in this regard:

The power procurement plan of the Distribution Licensee shall comprise the following:—

(a) A quantitative forecast of the unrestricted base load and peak load for electricity within its area of supply;

(b) An estimate of the quantities of electricity supply from the identified sources of power purchase, including own generation if any;

(c) An estimate of availability of power to meet the base load and peak load requirement:

Provided that such estimate of demand and supply shall be on month-wise basis in Mega-Watt (MW) as well as expressed in Million Units (MU);

(d) Standards to be maintained with regard to quality and reliability of supply, in accordance with the relevant Regulations of the Commission;

(e) Measures proposed for energy conservation, energy efficiency, and Demand Side Management;

(f) The requirement for new sources of power procurement, including augmentation of own generation capacity, if any, and identified new sources of supply, based on (a) to (e) above;

(g) The sources of power, quantities and cost estimates for such procurement:

² <http://www.financialexpress.com/industry/yogi-adityanath-cancels-bids-for-3800-mw-power-in-uttar-pradesh/663124/>

³ <http://www.livemint.com/Industry/saGIF4VEwv38rf208tUAM/Solar-power-tariff-falls-further-to-Rs244-per-unit.html>

⁴ <http://energy.economictimes.indiatimes.com/news/renewable/solar-power-tariff-continues-free-fall-hits-new-low-of-rs-2-62-a-unit/58602131>

*Provided that the forecast or estimates contained in the long-term procurement plan shall be separately stated for peak and off-peak periods, in terms of quantities of power to be procured (in MU) and maximum demand (in MW):
 Provided further that the forecast or estimates for the Control Period from FY 2016-17 to FY 2019-20 shall be prepared for each month over the Control Period:
 Provided also that the long-term procurement plan shall be a cost-effective plan based on available information regarding costs of various sources of supply.
 (Emphasis added)*

- e. Considering all the above factors, we request the commission to direct MSEDCL to submit detail information for the following:
 - i. Least-cost power procurement plan in accordance with the clause 19.2 of the MYT regulations 2015.
 - ii. Demand scenarios considering different assumptions for sales migration on account of open access, net metering, and captive consumption. MSEDCL should also specify the scenario that it considers as most realistic.
 - iii. Status of all the capacity that is contracted till date by MSEDCL from different sources such as central, state and private sector, including renewable energy procurement targets as per RPO regulations and other renewable energy capacity addition plans for the next 5 years, if any.
 - iv. Projections for backing down of thermal capacity over the next 5 years in light of changes in demand and supply after factoring in new contracted capacity that is expected to be commissioned during this period, if any.
5. **Comments regarding MSPGCL's presentation:** During the hearing dated 20th April, MSPGCL made a presentation highlighting several issues and its views on each of them. Following are PEG's comments on each of the issues raised by MSPGCL:
- a. Petitions for already commissioned units: It submitted that in-line with the requirements of the MYT regulations and also considering the fact that dispatch and backing down decisions are taken at unit level, MSPGCL should submit unit-wise petitions for capital cost approval and tariff determination for all the recently commissioned units.
 - b. Retirement age: MSPGCL has proposed retirement age of 40 years as against 25 years for its existing capacity. However, such decision cannot be unilateral and needs to be evaluated with respect to demand supply situation of MSEDCL, efficiency and performance of the units under questions, additional capital expenditure that may be needed to ensure efficient performance and compliance with new environmental regulation. In this regard, we request the commission to direct MSPGCL to submit data and analysis considering the above-mentioned factors to justify its proposal. Without undertaking detail cost-benefit analysis of such units considering all the issues listed above and factoring in detail demand assessment of MSEDCL, no permission should be granted to extend the PPAs for such units.
 - c. Status of PPAs with MSEDCL: In its presentation, MSPGCL has provided a list of projects for which PPAs have been approved and some for which such approval is pending. Some of these units are already commissioned and generating. Our comments on each set of units are listed below:
 - i. The 6090 MW of capacity listed in the table below for which PPAs have been approved but projects are yet to be constructed should be kept in abeyance till the present review is completed.
 - ii. Based on the detail assessment of MSEDCL's demand-supply position and after exploring all the possible alternatives, if the capacity projected in the table meets the least-cost planning criteria as per the MYT regulations 2015, then

subject to the findings of the present review process, the said capacity or part of it, as the case may be, can be considered for further approval as per the due process.

- iii. Till such time, MSPGCL should be restrained from undertaking any capital expenditure (Capex) for these projects. If MSPGCL undertakes any Capex for these projects in the intervening period without an explicit approval from the commission in this regard the same should not be allowed to be passed on to consumers.
- iv. The 3300 MW of capacity for which PPAs have not been approved should also be treated similarly and no Capex should be allowed to be undertaken for any project preparation activities for these projects.

Table 1: Status of MSPGCL capacity and its PPAs with MSEDCL

Sr.No.	Power Station	Unit	Capacity (MW)	Remarks
1	Parli TPS	Unit-7	250	Commissioned and currently generating units for which capital costs have been approved and tariff has been determined.
2	Paras TPS	Unit-4	250	
3	Khaperkheda TPS	Unit-5	500	
4	Bhusawal TPS	Unit-4	500	
5	Bhusawal TPS	Unit-5	500	
6	Chandrapur TPS	Unit-8	500	Capital cost and tariff needs to be decided. Separate proceedings would be initiated and PEG will submit its comments accordingly.
7	Chandrapur TPS	Unit-9	500	
8	Parli TPS	Unit-8	250	
9	Koradi TPS	Unit-8	660	
10	Koradi TPS	Unit-9	660	
11	Koradi TPS	Unit-10	660	
Currently generating projects with binding PPAs			5230	
12	Uran GTPS CCPP	Block I	406	These PPAs should be kept in abeyance and no further expenditure should be allowed towards these projects till the review process is completed and further directions are issued by the commission.
13	Uran GTPS CCPP	Block II	814	
14	Bhusawal TPS	Unit-6	660	
15	Dondaicha TPS	Unit-1	660	
16	Dondaicha TPS	Unit-2	660	
17	Dondaicha TPS	Unit-3	660	
18	Dondaicha TPS	Unit-4	660	
19	Dondaicha TPS	Unit-5	660	
20	Nashik TPS	Unit-6	660	
21	Paras TPS	Unit-5	250	
Capacity for which PPAs have been approved but projects are yet to be completed			6090	
22	Latur Coal Based (2 x 660 MW) Or Gas based (1500 MW) JV Project	Unit-1 & 2	1320	These PPAs should NOT be signed and no expenditure should be allowed towards any project preparation activities for these projects.
23	Dhopawe TPS	Unit-1 to 3	1980	
Capacity without approved PPAs			3300	

6. Prayers: In light of the points listed above, we pray to the commission as follows:
- a. Direct MSEDCL to submit a detail power procurement plan as per the clause 19 of the MYT regulations 2015 and considering the factors listed in para no 4 of this submission.
 - b. Direct MSPGCL to submit separate unit-wise petitions for capital expenditure approval and tariff determination of all the recently commissioned units.
 - c. No decision regarding extending retirement age of old MSPGCL units should be taken without undertaking detail cost-benefit analysis of such units considering all the issues listed in point no 5 (b) of this submission.

- d. As submitted in point no 5 (c) of this submission, the PPAs for all capacity that is yet to be constructed or commissioned should be kept in abeyance till the present review process is completed and the MERC issues an explicit approval to construct and commission any of these units. Till such explicit approval is issued, MSPGCL should be restrained from undertaking any expenditure towards these projects. If MSPGCL undertakes any expenditure for these units without such explicit approval from the MERC, then such expenses should not be passed on to consumers.
- e. Accept this submission on record and allow us to make further submissions in this matter, if any.

Thanking you

Sincerely

Ashwini Chitnis and Ann Josey
Prayas (Energy group)

Date: 15th May 2017

Place: Pune