Date: September 27, 2016

Record note of discussion on the presentation dated September 6, 2016, made by Dr. Anoop Singh, Associate Professor IIT Kanpur, on MOD related issues arising out of the Petition No. 1070/ 2015 filed by RPSCL

The Commission had awarded a study on the following aspect of Power Procurement in UP to IIT-Kanpur

- (a) Evaluation of merit order of power scheduling and dispatch
- (b) Effects of applicable deviation settlement mechanism and deemed generation on cost of power to utility.
- (c) Suggesting the benchmarks in terms of price/ quantity/ cost of power procured through alternate short term power procurement mechanism.
- (d) Identifying, the room for improvement so as to reduce the cost of power purchase.

Dr. Anoop Singh, the Associate Professor made a preliminary presentation on September 6, 2016, concluding as below:

(1) With the present practices of MOD followed by UPSLDC, the cost of power purchase as expended in 2016-17 is 81% of the CoS against the national average of 72%.

This is based on the data collected by IIT from NRLDC site, which includes certain number of existing MUST RUN generators.

(2) Higher UI (now DSM) charges were being paid by UPPCL, as observed in the graphical analysis pattern on the basis of the data collected by IIT from elsewhere.

In order to prepare, conclusive realistic report on the TOR (Terms of Reference) of study assigned to them, IIT requested for,

Detailed UI account report for all constituents including Discoms for FY 2013-14 to FY 2015-16. In case 15 min block data is not available, even the hourly data can suffice for academic study.

- (3) The overall cost of power procurement will be differently impacted by MOD linked with/ or without Technical Minimum, imposed on State Generating Plants for which the standards need to be fixed.
- (4) The criteria for according the MUST RUN status and also for backing down/ shutdown in view of significant and/or prolonged demand reduction need to be laid down. This will also reinforce the efficacy of MOD as a tool to economical power purchase.

There were keen interactive discussions among the Commission, SLDC, UPPCL and IIT on the above points raised by IIT- Kanpur, converging on the following action plan.

- i. Efforts to be made to bring down the power procurement cost as percentage to CoS in line with the national average.
- ii. Criteria for MUST RUN status to generators be laid down. Further, the propriety of granting the MUST RUN status to renewable generators, co-generators, small hydro and Run- of River plants also need to be examined and accordingly standards laid down.
- a) The Commission observed that presently MOD is considered on variable charges (i.e. per unit basis), whereas 100% fixed charges are payable against plant availability even if plant does not qualify in MOD based in Variable Charges.

Therefore, the possibility and mechanism to implement MOD on the basis of total cost (fixed + variable charges) should be explored. In case a generator offers a discount on total cost i.e. either on variable charges or on fixed charges, he may step up in the MOD stack. Also it is to be thought that how the rebate in Fixed cost can be transferred to per unit cost. (Action by: UPPCL/SLDC)

b) In case of Renewable Energy plants covered under Single Part Tariff their DC is implemented without any scheduling but for economic power purchase, there can be a possibility that after completing RPO, further power purchase may be denied by UPPCL. However since these generators do not seem to have fixed cost provision rule like other generators, the procedure for them should also be framed clearly.

The Commission was of the view, that UPPCL/Discoms should also convey their roadmap for fulfillment of RPO to SLDC, which in turn will submit with comments to the Commission. (Action by: UPPCL / Discom)

 iv. a) The Commission directed that the Technical Minimum of the Generators should be decided by UPPCL/Discoms/SLDC in consultation with Generators and submits to Commission, through SLDC with comments. (Action by: UPPCL / Discom/SLDC)

b) SLDC was required by the Commission to submit the basis for deciding the reduction in generation to the Technical Minimum or below, to place the plant on reserve shutdown, arising out of short term demand crash and / or persistent longer demand crash. (Action by: SLDC)

v. The Commission was also keen to know as to how the SLDC decide/ forecast the prospective demand pattern and the efforts made and the system available with SLDC to forecast the demand.

SLDC was directed to provide the relevant data to IIT also, for developing some model on weather forecasting based demand forecast. (Action by: SLDC)

- vi. The Commission directed UPPCL to submit their views/ comments on the compliance of CERC orders on backing down of Generators to below Technical Minimum. (Action by: UPPCL)
- vii. The Commission also observed that the contingency arising due to transmission constraint and distribution issue, deviation from MOD may become indispensable and if so UPPCL/Discoms should submit the contingency plan for deviation from MOD. (Action by: UPPCL / Discoms)
- viii. If UPPCL can suggest some procedure for MOD, they can submit it. (Action by: UPPCL/Discoms)

(Sanjay Srivastava) Secretary This document was created with Win2PDF available at http://www.win2pdf.com. The unregistered version of Win2PDF is for evaluation or non-commercial use only. This page will not be added after purchasing Win2PDF.