

Ref. No. MSEDCL/Comments/Ancillary Service Market /NO:26525

DATE: 05 NOV 2018

To,
The Secretary,
Central Electricity Regulatory Commission,
3 rd & 4th Floor, Chandralok Building,
36, Janpath, New Delhi -110 001.

Sub: Submission of comments / suggestions / objections on draft Discussion Paper on Re-designing Ancillary Services Mechanism in India

Ref: Public notice by CERC for Draft Discussion Paper on Re-designing Ancillary Services Mechanism in India dated 6th Sep 2018

Respected Sir,

This is in reference to public notice issued by Hon'ble CERC on Discussion Paper on Re-designing Ancillary Services Mechanism in India. MSEDCL is hereby submitting the comments on the proposed draft Discussion Paper which is attached herewith.

MSEDCL requests the Hon'ble Commission to kindly consider MSEDCL's comments / suggestions on Discussion Paper on Re-designing Ancillary Services Mechanism in India.

With Regards

Yours faithfully


(Satish Chavan)

Director (Commercial), MSEDCL

Copy s.w.r.to:

Chairman & Managing Director, MSEDCL, Corporate office Mumbai.

Comments on Discussion Paper on Re-designing Ancillary Services Mechanism in India

| S N | Issues | comment |
|-----|---|---|
| 1 | <p>6.7 How much tertiary reserves are required and how is it ascertained?</p> <p>6.8 Assessment to be done by the NLDC on a dynamic basis and based on the following:</p> <ul style="list-style-type: none"> • Sufficient Synchronized Reserve Available in such time as estimated through system studies to replace one-half • the operating capability loss caused by the most severe contingency observed • Sufficient Reserve Available in 15 minutes and 30 minutes to replace the operating capability loss caused by the most severe contingency • Sufficient Reserve Available in 30 minutes (to replace one and one-half times the operating capability loss caused by the most severe contingency observed under Normal Total Transfer Capability of the transmission system • Sufficient Reserve in 5 minutes, 10 minutes, 15 minutes and 30 minutes to return the system to a Normal State following the most severe transmission contingency <p>With fast changing mix of resources in the power systems, reserves must be estimated under probabilistic and uncertain conditions. The most suitable criterion for these problems could probably be minimization of maximal losses or risk caused by incompleteness of information</p> | <ol style="list-style-type: none"> 1. The system study report based on which quantification is done by NLDC for maintaining reserve shall be available on POSOCO website & frequency of study to be defined. 2. While making any kind of study, which is presently being done using PSSE software, it is to be ensured that all existing network elements are 100% updated & certification for same to be obtained from all Transmission service provider mainly STU. Further for study, actual monthwise average load on each node shall be taken with active reactive component. This nodewise load shall be submitted by respective state SLDC & same to be mandated under proposed mechanism. This is in order to ensure correctness of study; since this is base for quantification of reserve under various contingency condition. 3. The mechanism by which NLDC will determine blockwise reserve requirement need to be elaborated. |

Comments on Discussion Paper on Re-designing Ancillary Services Mechanism in India

| S N | Issues | comment |
|-----|--|---|
| 2 | <p>6.9 Who can participate? Currently only the regulated CGS can participate in the Ancillary Services mechanism which has been classified as "Slow Ancillary". Going forward,</p> <ul style="list-style-type: none"> • All Inter-State / Intra-State generation (Public or Private) resources may be qualified to provide Ancillary Services subject to <ul style="list-style-type: none"> a) maximum/minimum emergency / economic / regulation limits, b) Min run/ down times, Max-run times, c) Cold / intermediate / hot start / notification times, and d) Start-up costs, and ramp-rate limits <p>RE resources, with appropriate retrofit, be qualified to provide energy and Ancillary Services at a later date</p> | <ol style="list-style-type: none"> 1. As regards to participation of Intrastate generator is concerned, capacity to intrastate generator which is not tied under long term with any DISCOM shall be used. The scheduling & Dispatch regulation as well as DSM regulation applicable to Intrastate generator are governed by regulation framed by concerned state Regulatory commission & there is no similarity in regulation between regulation at state level & central level. Further there is no Ancillary service concept at intra state level . Further using capacity of intra state generator tie under long term contract without consent of concerned DISCOM will create commercial dispute between generator & DISCOM as same will be against provision under PPA. Hence intra state generator having capacity not tieup under any long term agreement shall only be used for ancillary service mechanism. 2. Those generator which are non-complaint of primary response of response is less than 80% , then those generator should not be allowed to participate in both RTM & ASM. The primary response though mandatory but not penalised action under present regulation, many generator are not inclined to provide primary response even after almost 8year since present IEGC regulation. To provide primary response, generator also need to incentivised provided response more than 85%. Primary response compliance must be compulsory criteria for generator participating in RTM & ASM . |

Comments on Discussion Paper on Re-designing Ancillary Services Mechanism in India

| S N | Issues | comment |
|-----|--|--|
| 3 | <p>6.13, 6.14 How will the Services be Procured and Cleared?</p> <p>Generators would bid simultaneously in Day Ahead Energy and Day Ahead Ancillary Services Market and the two shall be cleared together</p> <ul style="list-style-type: none"> • Demand curve in Day Ahead Energy Market is an aggregation of demand bid into market and demand curve for each type of ancillary service is put forth by the NLDC/RLDCs Rules governing the procurement: • NLDC in coordination with RLDCs and SLDCs to decide various types of Slow Tertiary services and characterize these services in terms of ramp rates and duration for which continuous energy would be required • Resources capable of providing Tertiary Reserves in Day-Ahead commitment shall be required to submit Availability Bids for each hour of the upcoming day in the Day Ahead Market, where such offers will be co-optimized with energy bids • Each supplier will be required to mandatorily submit its availability offer for reserves (albeit the same be zero). • The tertiary Reserve Suppliers shall be selected for each block of time for the upcoming day through a co-optimized Day-Ahead Unit Commitment process that minimizes the total cost of Energy and Tertiary Reserves, using bids submitted to Power Exchanges in the Day Ahead Market. • As part of the co-optimization process, the Market Clearing Engine at Power Exchange (in coordination (iteration) with the RLDCs) shall determine how much of each Operating Reserves product particular suppliers will be required to provide <p>Mechanism to be synchronized with RT Energy Markets and co-optimized when RT energy Markets commence operations</p> | <ul style="list-style-type: none"> • The algorithm used for co-optimization process need to be explained to all entities so as to understand the process by which Operating Reserves of particular suppliers will be quantified. • It is proposed that Resources capable of providing Tertiary Reserves in Day-Ahead commitment shall be required to submit Availability Bids for each hour of the upcoming day in the Day Ahead Market .Instead of this, said generator shall submit its bid for Ancillary reserve on 15 min time block or for each time block on which he has bid for energy. • The ratio of Energy to be bid under RTM & reserve to be bid in Ancillary service market need to be defined • The methodology for funding source for Ancillary service market needs to be clearly defined |

Comments on Discussion Paper on Re-designing Ancillary Services Mechanism in India

| S N | Issues | comment |
|-----|---|---|
| 4 | <p>6.15 Process Flow for Real Time Market</p> <p>Co-Optimization by Power Exchanges on DAY AHEAD basis</p> <ul style="list-style-type: none"> • In this process, "JOINT" cost of provision of Energy and Reserves on a Day Ahead Basis is Minimized (or alternatively Maximization of Social Welfare from Joint Provision of Energy and Reserves in Day Ahead Market) • All Selected Suppliers in the Day Ahead Market are notified by POSOCO for provision of Reserves • Any Resource may change the schedule with due notification (to POSOCO) at least 90 minutes prior to time block for which the resource is scheduled to provide reserve • Certain conditions may lead to a change in real time availability of resources and hence the resources designated to provide Ancillary Services shall be finally selected through a real time market <p>POSOCO re-assesses the need for Reserves in real time (90 minutes prior to any time block, or before the gate closure)</p> | <p>The MSEDCL has already submitted its view on gate closure concept on comments submitted on real time market. The copy of comments submitted is attached for ready reference. Some of main issue related to gate closure are highlighted as under</p> <ul style="list-style-type: none"> • Due to gate closure concept, on one hand, DISCOM will required to pay fix cost to generator & on other hand it has to purchase power at higher rate either from same generator (whose its contracted URS power sold in market) or any other generator. This is clear violation of terms & condition of long term PPA. The attempt of make regulation to circumvent the PPA terms is not jurisdiction of commission & if required, same will be challenged in legal forum. • The making real time market is good initiative by commission but surplus power (even though unrequested power) of generator which is contracted under long term must not be used for real time market purpose. However in case any DISCOM gives its consent to generator for sale of power under real time market, then only in such case generator may be allowed to sell the surplus power in market and commercial terms for such sale like commission to generator for selling power shall be left to generator & beneficiary. The commission should not define commercial terms for such transaction which is beyond jurisdiction of commission and is clearly case of redefining PPA. <p>Further in respect of gate closure , MSEDCL would like to bring additional comment which is as under:</p> <p>Presently surplus energy i.e URS of CGS station whose rates are determined by commission is used for Ancillary service. Commission want to bring restriction on right to recall facility of DISCOM by not</p> |

allowing to recall by 4th time block. Now assume that Maharashtra has surrender its 200MW power and same is schedule under URS for up regulation to bring frequency within IEGC band. The URS power is scheduled under RRAS mechanism to virtual entity say grid but now if Maharashtra recall that surrender power i.e he want to rescheduled that 200MW power to meet its demand. Now instead of virtual entity power is scheduled to beneficiary & by virtue of this power is only injected into grid and there is no change in total schedule of generator. **So there will not any impact on grid frequency as such by allowing DISCOM to recall its surrendered power.**

But if right to recall facility is changed (as proposed in this draft paper & RTM draft paper) then DISCOM will have either overdraw from grid, curtail its load or purchase own surrender power at higher cost for which is already paying fix charges to generator. Under any of these options available, DISCOM has financial impact and not generator. Hence present provision of revision of schedule should not be changed by new gate closure concept. Infact we will **suggest to commission to allow DISCOM to schedule power as per present provision available in respect of scheduling for URS power i.e immediate time block.** This way DISCOM will able to match its load generation more accurately & will able to reduce deviation. This will ultimately help in grid security. The commission may bring restriction on number of revision as restricted in respect of RE generators.

- Change in schedule to provide shall be allowed only under forced outage of unit

Comments on Discussion Paper on Re-designing Ancillary Services Mechanism in India

| S N | Issues | comment |
|-----|---|--|
| 5 | <p>6.15 Process Flow for Real Time Market</p> <ul style="list-style-type: none"> • All Resources providing Energy in Real Time, must make themselves available to provide Reserves (if the same is technically feasible as per POSOCO's assessment) • All Operating Reserves selected by POSOCO shall remain ready to activate themselves at POSOCO's directions (for at least four time blocks from the time of activation of their schedule) • NLDC can initiate resource evaluation at any instant. Resources not able to demonstrate the offer parameters to be barred from participating s for a period of three years, if it has failed three successive tests • Uniform market clearing price would be discovered for each block of time for all services in the market | <ul style="list-style-type: none"> • It is proposed that All Resources providing Energy in Real Time must make themselves available to provide Reserves. But if concern generator fails to provide quantified reserve in real time as per ramp rate then penal action is proposed. But record of violation need to be published by NLDC/RLDC weekly on its website & accordingly action as specified ie debarring from participating for a period of three years, if it has failed three successive tests, shall be initiated & record of same shall also be published. There need to be software to automatically disallow to participate in market to those generator/traders which are barred in view of above provision • The cap rate for charges against fix charges for reserve must be defined. Similarly there is need of cap for rate of energy for energy to be traded in RTM as well as DAM. • The postfacto analysis shall be done by NLDC to check, if participating generator has actually generated energy considering quantum clear in RTM & ASM. If there are repeated incidences of deviation by those generator by more than 12% (i.e generating less by 12% of schedule) particularly for time block when frequency is below IEGC band, then it should be considered as gaming by generator. • It is mentioned that All Operating Reserves selected by POSOCO shall remain ready to activate themselves at POSOCO's directions (for at least four time blocks from the time of activation of their schedule). If reserve required immediately within 15 minutes based on its categorization i.e slow Spinning Reserve and Slow Non-Synchronized Reserve then why four time block period is to be given. The generator who will participate in RRAS mechanism shall provide required quantified capacity immediately upoun signal from NLDC for providing reserve. |