

Inputs from stakeholders on draft Amendment to Guidelines for assessment of ramping capability

S. No.	Inputs	Stakeholder	Response
Consideration of First block of Ramping			
1	Wherever scheduled ramp in preceding block is less than 50% of ramp rate, the same shall also be considered as zero.	NTPL	Where the ramp in preceding block is between 0 and 0.5%/min, generators should be able to provide between 0.5% and 1%/min in the next block. Guidelines have been revised accordingly to reflect that in the blocks where ramping in previous block is less than 0.5%/min, the assessment threshold for these blocks would be 50% of scheduled ramp rate. This provision would be reviewed with further experience. Further, blocks with change in direction of ramp have been excluded from computation.
2	As per this clause interpretation, if there is a ramp of only 1 MW in the preceding block then in the next block the generator has to achieve 1% ramp in order to demonstrate its ramp capability, which is practically not achievable.	APCPL	
3	It's suggested that while calculating the blocks under E and F, the definition of first block needs to be revised to exclude the <1% ramp rate blocks and only the blocks with 1% or more ramp rate should be considered as the first block.	NTPC	
4	It's suggested that during reverse ramping, 1st block is to be ignored and 2nd block is considered for 50% of scheduled Ramp rate to pass the ramp test criteria	NTPC	
Impact of Ramping on DSM charges			
5	Relaxation in computation of DSM charges for blocks where the scheduled ramp in preceding block was zero may be considered	NTPL	Appropriate consideration of impact of first block of ramping has been made in the guidelines based on feedback from generators. Computation of DSM is beyond the scope of these guidelines.
6	In all the first blocks and reverse ramp blocks, there'd be DSM loss due to under or over injection in these blocks and SG needs to be correctly defined in the Scheduling software itself to remove this anomaly	NTPC	
Technical Minimum			
7	There are number of instances in a day where schedule is less than technical minimum corresponding to number of units on bar. Therefore, the revision/correction of schedule later by RLDC will impact the Real Time Ramp Performance of the generators, because in real time the desk operator will not be able to gauge the actual ramp required in each block keeping in mind that the blocks with schedule less than tech min schedule will going to be revised/corrected later.	APCPL	The scheduled ramp rate is determined from the final implemented schedule. Further, only the blocks where the scheduled ramp rate is at least 1%/min would form part of evaluation. Schedule below technical minimum is an unlikely occurrence (except in Western Region) and any upward post-facto revision to bring schedule to technical minimum would result in scheduled ramp coming down below the 1%/min and therefore, that block will go out of the purview of assessment. Further, the guidelines provide a slack of 25% of number of blocks (as qualification threshold is $F/D \geq 0.75$).
8	When there is Successive Ramp Down to Technical minimum schedule then it is not possible to achieve the ramp rate of 1% in that particular last block because the machine can't be run below the technical minimum schedule	APCPL	

S. No.	Inputs	Stakeholder	Response
Computation of AARR			
9	For the blocks where the scheduled ramp rate in the preceding block is zero, AARR shall incorporate as given below: If AARR for these block > Scheduled Ramp Rate (SRR), then AARR = AARR, Else AARR = Min (2*AARR, SRR)	Shri Asit Singh	This suggestion has been incorporated suitably in the guidelines.
Calculation for Additional RoE			
10	Its suggested that for calculation of AARR, blocks under E , which are scheduled more than or equal to 2%, 3% or higher should be calculated separately so that AARR for higher ramp rate blocks does not get affected by lower ramp rate blocks (less than 2% and greater than 1%), or the ramp rates achieved in 1% scheduled blocks should be considered as twice for AARR calculation of 2+% AARR and thrice for 3+% AARR	NTPC	In the present scenario, none of the ISGS are declaring ramp rates in excess of 1%/min, barring occasions like unit tripping/synchronization. The provisions corresponding to higher ramp rates can be suitably reviewed in future with more operational experience.
11	For awarding incentive (Greatest Integer (AARR) – 1) formula is used. For achieving 1 % ramp rate for block , one has to ramp up or down at 2 % rate .So for incentive one has to ramp 4 %.This means for 500 MW ,20 MW per minute ramp .So if ramp started at 275 MW technical minimum load for 500 MW unit capacity, load need to reach 475 in first block, which is not practically possible.	NTECL	The calculation of ramp rate is in line with the scheduling practices. Further, the apprehension that plants need to ramp at 4% for getting incentive is unfounded as during the first block of ramp, where such concerns are likely to arise, assessment threshold is being reduced by 50%.
12	The step of 1% ramp to get additional RoE of 0.25% seems very high and smaller intervals of 0.1% or 0.2% could be considered for incentivizing the generators to declare higher ramp rates.	Shri Asit Singh	The steps of 1% ramp have been kept in line with the current regulations. However, feedback in this regard can be shared with the Hon'ble Commission with more experience.
Other Issues			
13	Threshold for Td/Tm should be considered as > 0.98 as the 15% leverage considered by NLDC is very high.	Shri Asit Singh	At present, benchmark for Td/Tm is being kept at 0.85 as this is the initial period under the new regulations. The same would be reviewed based on operational experience.
14	The blocks of DC/ SG change due to unit tripping would be excluded from AARR and also from D, E & F	Shri Asit Singh	The cushion provided at multiple levels (in Td/Tm, in F/D, in actual ramp) is intended to cover such eventualities. However, the feedback is noted.