भारतसरकार केंद्रीयविद्युतप्राधिकरण **दक्षिणक्षेत्रीयविद्युतसमिति** **29, रेसकोर्स क्रास रोड** बेंगलूर009 560 -**		Government of India Central Electricity Authority **Southern Regional Power Committee** 29, Race Course Cross Road Bengaluru - 560 009
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स/No. SRPC/MS/2021-22/1131	दिनांक /Date	**29th June 2021**

सेवामें / To

सचिव/The Secretary,

केन्द्रीय विद्युत विनियामक आयोग/Central Electricity Regulatory Commission

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Subject: Comments of SRPC Secretariat on the draft Central Electricity Regulatory Commission (Ancillary Services) Regulations, 2021. - Reg.

Ref: CERC letter no. RA-14026(11)/3/2019-CERC) dated 29.05.2021

Sir,

Kindly find enclosed the comments of SRPC secretariat on the draft Central Electricity Regulatory Commission (Ancillary Services) Regulations, 2021 for your kind consideration please.

Yours faithfully,

(ए बालन /A BALAN)
सदस्य सचिव/Member Secretary

संलग्नक:यथोपरि/ Encl: As above

Southern Regional Power Committee (SRPC)
Bengaluru

Comments of SRPC Secretariat on the Draft CERC (Ancillary Services) Regulations 2021

Draft Regulation No.	Proposed in the Draft Regulations	Comments of SRPC secretariat
3. Definitions and Interpretation		**Following definition may be added:** **"Demand side resources"** means those resources include storage, responsive distributed generation and loads engaged in demand response programs that can support the grid by responding to market signals or direct load control.
4. Scope	These regulations shall be applicable to regional entities, including entities having energy storage resources and demand side resources qualified to provide Ancillary Services ==and other entities== as provided in these regulations.	**May be modified as below:** These regulations shall be applicable to regional entities, including entities having energy storage resources and demand side resources qualified to provide Ancillary Services as provided in these regulations.
6. Estimation of Reserves by the Nodal Agency	(1) The Nodal Agency shall, in coordination with RLDCs and SLDCs, estimate the quantum of requirement of SRAS and TRAS for such period and based on such methodology as specified in the Grid Code.	**May be modified as below:** (1) The Nodal Agency shall, in coordination with RLDCs and SLDCs, estimate the quantum of requirement of SRAS and TRAS for such period and based on such methodology as specified in the Grid Code/==Detailed Procedure by the Nodal Agency.==
7. Eligibility for an SRAS Provider	(1)A generating station or an entity having energy storage resource or demand side resource, connected to inter-State transmission system or intra-State transmission system, shall be eligible to provide Secondary Reserve Ancillary Service, as an SRAS Provider	**May be modified as below:** *A generating station or an entity having energy storage resource or demand side resource, connected to inter-State transmission system or intra-State transmission system ==as regional entity== shall be eligible to provide Secondary Reserve Ancillary Service, as an SRAS Provider.*

	(a) has bi-directional communication system with **NLDC or RLDC**, as per the requirements stipulated in the Detailed Procedure by the Nodal Agency;	Regional entities mostly do not have direct communication link with NLDC, however the same is available with RLDCs. In that scenario, the automatic secondary control signal to generators/demand side resources should be sent via existing communication system between Regional entities and RLDCs.
8. Activation and Deployment of SRAS	(2) The Area Control Error (ACE) for each region would be auto-calculated at the control centre of the Nodal Agency based on telemetered values, and the external inputs referred to in clauses (3) and (4) of this regulation, as per the following formula	➢ Whether auto-calculation of ACE at every 4 sec? ➢ In case the telemeterd values are absurd or not available, ACE would be erratic. In that case there should be a check by the control center of the Nodal Agency to avoid sending control signal for erratic quantum. ➢ Nodal Agency may specify the methodology/data to be considered for ACE for the above case in the Detailed Procedure.
	(4) Offset shall be used to account for metering errors and shall be decided by the Nodal Agency for the respective region.	➢ **May be modified as below:** (4) Offset shall be used to account for metering errors and shall be decided by the Nodal Agency in consultation with RLDCs and SLDCs for the respective region. ➢ Estimation criteria for offset may be envisaged in the Detailed Procedure.
9. Procurement of SRAS	(2) An SRAS Provider willing to participate in SRAS shall be required to provide standing consent to the Nodal Agency for participation, which shall remain valid till it is modified or withdrawn:	Whether the quantum of power that can be offered by the SRAS provider shall also be given on upfront basis. Otherwise how nodal agency can decide the quantum from SRAS providers especially from the entities having energy storage resource or demand side resource for sending control signal.
	5) The SRAS Providers that are generating stations, shall declare their variable charge upfront on monthly basis in the manner as stipulated in the Detailed Procedure.	➢ **May be modified as below:** 5) The SRAS Providers that are generating stations, shall declare the quantum being offered and variable charge upfront on monthly basis in the manner as stipulated in the Detailed Procedure.
	(6) The SRAS Provider other than the generating stations, shall be required to declare the compensation charges upfront on monthly basis in	➢ **May be modified as below:** (6) The SRAS Provider other than the generating stations, shall be required to declare the quantum being offered and the

	the manner as stipulated in the Detailed Procedure	compensation charges upfront on monthly basis in the manner as stipulated in the Detailed Procedure.
	(8) In case of the generating stations whose tariff is determined by the Commission under Section 62 of the Act, the Nodal Agency shall identify the generating stations for providing SRAS, (a) on day-ahead basis, based on the capacity available after the schedule has been communicated at 2300 hrs for the next day; and (b) on real-time basis before the gate closure for incremental SRAS requirement.	➢ Applicability of this clause may be mentioned clearly. ➢ A suitable clause may be inserted as follows: The generating stations whose tariff is determined by the Commission under Section 62 of the Act shall furnish the information specified under the clauses 3, 4 ,5 & 6 of Regulation 9.
10. Selection of SRAS Providers and Despatch of SRAS	(6) The Custom Participation Factor shall be calculated as specified in Appendix-I of these regulations.	Methodology for calculation of the Custom Participation Factor and Allocation of Secondary Control Signal among SRAS-Up and SRAS-Down Providers in Appendix is mainly intended for Generating stations. Methodology for entities having energy storage resource or demand side resource shall also be detailed.
	(11) Average of SRAS-Up and SRAS-Down MW data shall be calculated by the Nodal Agency for every 5 minutes in absolute terms using archived SCADA data at the Nodal Agency and reconciled with the data received at the control centre of the SRAS Provider and shall be used for payment of incentive as per Regulation 12 of these regulations. (12) Average of SRAS-Up and SRAS-Down MW data shall be calculated for every 15 minutes time block in MWh for every SRAS Provider by the Nodal Agency using the archived SCADA data at the Nodal Agency and reconciled with the data received at control centre of the SRAS Provider and shall be used for payment of variable charge or compensation charge, as the case may be, to the SRAS Provider as per Regulation 11 of these regulations.	➢ **May be modified as below:** *(11) Average of SRAS-Up and SRAS-Down MWh data shall be calculated by the Nodal Agency for every 5 minutes in absolute terms using archived SCADA data at the Nodal Agency and reconciled with the data received at the control centre of the SRAS Provider and shall be used for payment of incentive as per Regulation 12 of these regulations.* ➢ The data shall be frozen subsequent to the reconciliation by Nodal Agency and SRAS provider and further revisions of SCADA data by the SRAS provider shall be strictly avoided. ➢ Incentive and Variable Charges/Compensation charge to SRAS providers are computed based on the 5 minute and 15 minute SCADA data respectively. Since the SCADA data is less reliable, commercial disputes due to data issues, if any, shall not be raised by the SRAS providers after freezing /reconciliation of data.

13. Failure in performance of SRAS Provider	(1) Performance below 20% for two consecutive days by an SRAS Provider shall make the SRAS Provider liable for disqualification for participation in SRAS for a week by the Nodal Agency.	Incentive for performance below 45% after two consecutive days by an SRAS provider may be reduced to zero from third day. Incentive may be restored if performed 45% or above.
14. Eligibility for a TRAS Provider	A generating station or energy storage resource or demand side resource connected to inter-State transmission system or intra-State transmission system shall be eligible for participation as TRAS Provider, if …………….	➤ **May be modified as below:** A generating station or energy storage resource or demand side resource connected to inter-State transmission system or intra-State transmission system as Regional entity shall be eligible for participation as TRAS Provider, if …………….. ➤ **The following may be added after (b):** (c) has metering and SCADA telemetry in place for monitoring and measurement of energy delivered under TRAS, as stipulated in the Detailed Procedure by the Nodal Agency;
15. Activation and Deployment of TRAS	TRAS shall be activated and deployed by the Nodal Agency on account of the following events: (a) In case the secondary reserve has been deployed continuously in one direction for fifteen (15) minutes for more than 100 MW, in order to replenish the secondary reserve; …………..	Whether secondary reserve deployed continuously in one direction for fifteen (15) minutes for more than 100 MW **for region or total of all regions?**
16. Procurement of TRAS		➤ Whether TRAS procurement is carried out on all India basis or an Region basis. ➤ The procedure for estimation of TRAS quantum requirement on day ahead basis and the duration/period of the TRAS quantum requirement may be specified in the Detailed Procedure by the Nodal Agency. ➤ When the Grid frequency reaches 50Hz or ACE=0, whether TRAS would be withdrawn by Nodal Agency.
	(1) Buy Bid: The Nodal Agency shall communicate to the power exchange(s), the quantum of requirement of TRAS-Up and TRAS-Down on day-ahead basis	**May be modified as below:** (1) Buy Bid: The Nodal Agency shall communicate to the power exchange(s), the quantum of requirement of TRAS-Up and TRAS-

	before commencement of the Day Ahead Market and incremental requirement, if any, over and above the procurement in the Day Ahead Market, on real-time basis, before the commencement of the Real Time Market:	Down <mark>without any price offer</mark> on day-ahead basis before commencement of the Day Ahead Market and incremental requirement, if any, over and above the procurement in the Day Ahead Market, on real-time basis, before the commencement of the Real Time Market:
	(2) Sell Bid: The TRAS Providers shall submit bids in the following manner: (a)Bids for TRAS-Up and TRAS-Down shall be submitted for each time block or for a minimum of <mark>two consecutive time blocks</mark> in the Day Ahead Market or in the Real Time Market.	**May be modified as below:** (a)Bids for TRAS-Up and TRAS-Down shall be submitted for each time block or for a minimum of <mark>four consecutive time blocks</mark> in the Day Ahead Market or in the Real Time Market. (Since the eligibility of TRAS provider is capable of providing TRAS within 15 minutes and sustaining the service for at least next 60 minutes.)
17. Price Discovery of TRAS		Availability of transmission corridor /grid conditions shall be considered while finalizing the TRAS providers.
	(2) The highest Energy-Up bid corresponding to the requirement for TRAS-Up as intimated under clause (1) of Regulation 16 of these regulations, shall be the Market Clearing price for Energy-Up in the Day Ahead Market (MCP-Energy-Up-DAM) or in the Real Time Market (MCP-Energy-Up-RTM), as the case may be.	Highest Energy-Up bid as Market Clearing Price may lead to unreasonable and exorbitant bids by TRAS-Up providers.
	(5) The Commission may, if considered necessary, provide for a price cap for TRAS.	Capping for the procurement price needs to be mentioned. In the absence of capping, TRAS may be uneconomical.
18. Scheduling and Despatch of TRAS	(1) Scheduling and despatch of TRAS shall be according to the provisions of the Grid Code.	Whether the Revision of TRAS schedule can be done?
19. Payment for TRAS	(2) TRAS-Up Provider shall receive commitment charges at the rate of ten percent of the MCP-Energy-Up-DAM or the MCP-Energy-Up-RTM, as the case may be, subject to the ceiling of 20 paise/kWh for the quantum of TRAS-Up cleared in the Day Ahead Market or the Real Time Market as the case may be, but not instructed to be despatched by the Nodal	It is not clear from draft Regulations and Explanatory Memorandum, whether all the TRAS providers who bid for TRAS-Up would be cleared when the total quantum bid by the providers is more than TRAS-Up requirement. If all are cleared, then commitment charge is payable to all TRAS Up providers who place the sell bids. Then 20 paise/kWh is guaranteed for participation in the bidding.

	Agency.	
20. Shortfall in Procurement of SRAS and TRAS or Emergency Conditions	(3) The generating stations as referred to in clause (1) of this Regulation, whose URS is despatched as SRAS-Down shall pay back to the Deviation and Ancillary Service Pool Account in terms of clause (2) of Regulation 11 and shall be paid incentive in terms of Regulation 12 of these regulations.	**May be modified as below:** (3) The generating stations as referred to in clause (1) of this Regulation, whose URS is despatched as SRAS-Down shall pay back to the Deviation and Ancillary Service Pool Account ==at their variable charge== in terms of clause (2) of Regulation 11 and shall be paid incentive in terms of Regulation 12 of these regulations.
21. Accounting and Settlement of SRAS and TRAS	(1) Accounting of SRAS shall be done by the Regional Power Committee on a weekly basis, based on SCADA data	**May be modified as below:** (1) Accounting of SRAS shall be done by the Regional Power Committee on a weekly basis, based on SCADA data ==furnished by Nodal Agency (NLDC).==
	(2) Accounting of TRAS shall be done by the Regional Power Committee on a weekly basis, based on interface meter data and schedules.	**May be modified as below:** (2) Accounting of TRAS shall be done by the Regional Power Committee on a weekly basis, based on interface meter data and schedules ==furnished by RLDC.==
	(3) Deviation of AS Provider in every 15 minutes time block shall be calculated as under and settled as per the procedure of DSM Regulations: MWh Deviation for AS Provider = (Actual MWh of AS Provider) − (Scheduled MWh of AS Provider including TRAS MWh) − (SRAS MWh of AS Provider) ==Provided that deviation from schedule by the AS Provider shall be settled first against the Ancillary Services schedule.==	The provision is not clear.
	(6) The net of the charges and the credits under clauses (4) and (5) of this Regulation shall be settled through the charges collected under the DSM Regulations.	Accounts are separate for DSM and AS and these charges would be settled through Deviation and Ancillary Service Pool Account pool account by the pool operator (RLDCs).
	(7) Settlement of payment liabilities in respect of the AS providers shall be done directly by the Nodal Agency on a weekly basis based on the accounts prepared by the Regional Power Committee.	**May be modified as below:** (7) Settlement of payment liabilities in respect of the AS providers shall be done directly by the Nodal Agency ==from the Deviation and Ancillary Pool Account maintained by the RLDCs== on a weekly basis based on the accounts prepared by the Regional Power Committee

23. Detailed Procedure	(f) methodology of sharing of real time data as referred to in clause (8) of Regulation 10 of these regulations;	**May be corrected as below:** *(f) methodology of sharing of real time data as referred to in clause (10) of Regulation 10 of these regulations;* **The following may also be added:** ➢ Methodology/ Data to be considered for ACE in case the telemeterd values are absurd or not available. ➢ Methodology for estimating the offset in the formula for ACE. ➢ Procedure for estimation of TRAS quantum requirement and the duration of the same. ➢ Timelines for furnishing the data of SRAS/ TRAS by Nodal Agency/RLDCs.
Appendix-II	(2) SRAS Provider shall be eligible for incentive based on the performance measured as above and the 5-minute MWh data calculated for SRAS-Up and SRAS-Down as per clause (9) of Regulation 10 of these regulations and aggregated over a day, as under:	**May be corrected as below:** *(2) SRAS Provider shall be eligible for incentive based on the performance measured as above and the 5-minute MWh data calculated for SRAS-Up and SRAS-Down as per clause (11) of Regulation 10 of these regulations and aggregated over a day, as under:*
	(3)Incentive payments shall be calculated for each SRAS Provider for energy supplied for a day as follows: Incentive for SRAS Provider = Actual Response (MWh) x (1-NAC) x Incentive Rate Where, ………. (c) Incentive Rate in Paise/kWh is the incentive rate applicable based on the performance assessment of SRAS Provider.	**The formula may be corrected as below:** *Incentive for SRAS Provider = Actual Response (kWh) x (1-NAC) x Incentive Rate*