

Minutes of the Meeting held on 27th September 2019 regarding communication availability from NLDC/ RLDCs to the nearest wide band node/ switchyard for the generating stations under AGC as per CERC order 319/RC/2018 dated 28th August 2019

1. NLDC vide letter POSOCO/NLDC/AGC Project/Sep'19/ dated 17th September 2019 requested CTU to kindly nominate Nodal Officer(s) to coordinate with NLDC for providing communication infrastructure for AGC project. On 27th September 2019, nominated nodal officers from CTU discussed the detailed action plan regarding the communication to AGC power plants at NLDC, New Delhi.
2. Senior General Manager, NLDC welcomed the participants and the importance of Automatic Generation Control (AGC) was briefly explained. Existing setup in the AGC pilot project was also shown.
3. In the letter, CTU was requested that generator wise list of nearest wideband nodes for all the generators along with availability of redundant communication interface with NLDC may be provided for further discussion. All the 78 plants identified for AGC were reviewed by CTU from communication point of view. The following are the prima-facie observations given by CTU:
 - a. 28 power stations are having fiber optic connectivity with route diversity (draft list submitted by CTU attached as **Annexe-I**).
 - b. Balance 50 power plants are not connected with route diversity. This includes-
 - i. Plants connected with redundant path and without route diversity
 - ii. Plants connected with single path and without route diversity
 - iii. Plants with no OPGW communication available
4. Optimum distribution of communication links into ports, for bringing port level diversity at NLDC termination level would be required. POWERGRID informed that same shall be examined and requirement of up gradation of equipment / card, if any, for providing port level redundancy shall be considered while working out requirement for AGC communication connectivity.
5. CTU agreed to provide two Ethernet ports from SDH node (wide band) available near generating station, wherever spare ports are available. In case of constraint, upgradation of equipment / cards as required shall be considered while working out requirement for AGC communication connectivity. RLDCs/NLDC will coordinate with concerned generating station for connectivity of Ethernet port to RTU at generating station in coordination with POWERGRID.
6. In case of requirement of usage of STU network for AGC connectivity the same shall be brought out by CTU. Necessary coordination with STU for providing Fibres, equipment shall be done by RLDC/NLDC in relevant forums.
7. POSOCO emphasized that equipment level redundancy has to be taken care of at all the critical nodal points since outage of such equipment can impact multiple communication links at the same time. POWERGRID informed that for providing redundant equipment at intermediate all nodes, aspects such as space availability, power supply redundancy & fibre availability have to be considered for feasibility. This will be a challenging task requiring due diligence in implementation considering traffic in the existing network.

8. It was agreed that for providing route diversity, main connectivity etc. for AGC implementation of 78 stations shall be worked out by POWERGRID. POSOCO will take up approval of the scheme at relevant forums of RPCs as required for taking up implementation.
9. ED, NLDC thanked CTU for their cooperation and proactivity.

List of participants:

1. Debasis De, ED, NLDC
2. N Nallarasana, Sr. GM, NLDC
3. H H Sharan, Sr. GM (LD&C), Power Grid Corporation of India Ltd
4. Tej Prakash Verma, Chief Manager (LD&C), Power Grid Corporation of India Ltd
5. Narendra Kumar Meena, Manager(ULDC), Power Grid Corporation of India Ltd
6. Anamika Sharma, Chief Manager, NLDC
7. Phanisankar Chilukuri, Deputy Manager, NLDC
8. G Sudhakar, Assistant Manager, NLDC

Sl. No.	Region	Generating Station	Nearest WB node
1	NR	Naptha Jhakri	Naptha Jhakri
2	NR	Dehar	Dehar
3	NR	Unchahar TPS Stage-IV	Unchahar
4	NR	Unchahar TPS Stage-I	
5	NR	Unchahar TPS Stage-II	
6	NR	Anta Gas	Bassi PG
7	WR	Costal Gujarat Power Ltcd (GCPL)	CGPL (Mundra)
8	WR	SASAN Power Ltd	SASAN
9	WR	Korba STPP Stg - I & II	Korba NTPC
10	WR	Sipat Stg - I	Sipat NTPC
11	WR	Mouda STPP Stage - II	Mauda NTPC
12	WR	Vindhyachal-I	Vindhyachal NTPC
13	WR	Sipat TPS Stg - II	Sipat NTPC
14	WR	Vindhyachal-IV	Vindhyachal NTPC
15	WR	Vindhyachal-III	Vindhyachal NTPC
16	WR	Vindhyachal-II	Vindhyachal NTPC
17	WR	Mouda STPP Stg - I	Mauda NTPC
18	WR	Gadarwara STPP St-I	Gadarwara NTPC
19	WR	Gandhar Gas	Gandhar NTPC
20	WR	Kawas Gas	Kawas NTPC
21	WR	Korba STPS Stg - III	Korba NTPC
22	WR	Vindhyachal -V	Vindhyachal NTPC
23	SR	KUDGI STPS	KUDGI STPS
24	SR	Ramagundam STPS-I & II	Ramagundam STPS
25	SR	NTECL-VALLUR TPS	Vallur TPS
26	SR	SIMHADRI STPS-I	
27	SR	SIMHADRI STPS-II	SIMHADRI STPS-II
28	SR	RAMAGUNDAM STPS-III	Ramagundam STPS