



एनटीपीसी लिमिटेड

(भारत सरकार का उद्यम)

**NTPC Limited**

(A Govt. of India Enterprise)

केन्द्रीय कार्यालय/ Corporate Centre

To,

17.05.2019

The Secretary,  
The Central Electricity Regulatory Commission,  
New Delhi.

**Sub: Comments / Suggestions on the Draft "CERC (Deviation Settlement Mechanism and Related Matters) (Fifth Amendment) Regulations 2019"**

Dear Sir,

Please find enclosed herewith our comments /suggestions on Draft "Draft "CERC (Deviation Settlement Mechanism and Related Matters) (Fifth Amendment) Regulations 2019" circulated by the CERC seeking comments / suggestions from all concerned.

Thanking you,

Yours sincerely,

(Rajnish Bhagat)  
ED (Comml.)

## **NTPC Comments on DSM 5<sup>th</sup> Amendment Regulations, 2019**

### **Sub: NTPC Comments on CERC (Deviation Settlement Mechanism and Related Matters) (Fifth Amendment) Regulations 2019**

1. **Regulation 7 Clause 10** - The Draft Regulations have proposed to introduce a tolerance band of +/-10 MW deviation from schedule to subsume various inevitable deviations including the auxiliary power consumption by the generating station during shutdown. It is submitted that this band should be quantified not in terms of fixed MW as schedule varies according to installed capacity e.g. from 440 MW (Tanda) to 2400 MW (Kudgi). The band of +/- 10 MW may be sufficient for smaller stations but bigger stations may find it difficult to remain within the allowed band of  $\pm 10$  MW considering ABT meter vs SEM meter error and other issues.

The following is proposed:

- i. It is proposed to allow a band of  $\pm 2\%$  of Schedule (SG) in each block subject to a minimum of 10 MW beyond which "sign change" requirement shall be applied.
- ii. Stations with zero schedule (SG=0 MW) may be exempted from sign change requirement because it is neither possible to modulate the drawal of auxiliary power during complete shutdown of stations nor to keep auxiliary power consumption within the band of  $\pm 10$  MW across all stations. Auxiliary Power drawl depends on various conditions like a) cooling down period after shutdown, b) preservation requirement of units for long / short shutdown, c) activities to keep machine ready for recall from RSD and d) start up activities of one or multiple units at the given point of time. Therefore, it may not be linked with fixed quantum of power for the purpose of sign change requirement. If at all, it is to be linked, band may be fixed at normative APC of the station. Sample power consumption data of Kudgi (3\*800MW) which is sometimes subject to RSD and is forced to draw power from Grid to run their auxiliaries on continuous basis is enclosed as Annexure-A. The auxiliary power consumption of NTPC Kudgi under complete shut-down is around 17-20 MW.

Accordingly, it is suggested to add a proviso to list of exemptions to sign change proposed in the draft regulations at S. No. 4.5 (b), as below:

*(h) Any drawal of power by a generating station under conditions of complete shut-down or reserve shut-down.*

2. **Regulation 7 Clause 10 (b)** - Draft amendment proposes additional charge of 10% on the time block DSM payable / receivable for violating Sign change stipulations after 12 time blocks of sustained deviation in one direction. But after 01.04.2020, it is suggested to change the stipulation to effect sign change after 6 time blocks.

NTPC proposes to retain the sign change stipulation proposed till 31.03.2020 for further periods also. Additional charge for violating the provision may be based on the Time Block DSM payable / receivable rather than daily Base DSM payable / receivable. Further effecting sign change in 6 time block will again create operating issues for Generators. So sign change after 12 Time blocks may be retained after 01.04.2020 also.

3. **Regulation 7 Clause 10 (b)** - *“Provided also that payment of additional charge for failure to adhere to sign change requirement as specified under clauses (a) & (b) of this regulation shall not be applicable to:*

.....

*(d) Any drawal of power by a generating station for the start-up activities of a unit.”*

Hon'ble Commission has recognized that during start up activities of a unit, it may not be possible for the station to adhere to the sign change requirements. In this regard, it is submitted that on the same lines, during shutdown activities of a unit adherence to sign change requirement may not be possible. During shut-down of a generating station, activities are carried out so as to ramp-down the generation keeping in view various operational constraints. In case of planned shut-down, the ramping down would be as per the plan and ramp-down schedule given by the RLDC. In case of unplanned shutdown, ramp down would be more abrupt

and unpredictable and shall be subject to the operational exigencies. In both the situations, it would be difficult to comply with sign change requirements. It is therefore suggested that as in the case of start-up, sign change may be exempted during shut-down of generating station also. Accordingly it is suggested that the above clause may be reworded as under:

***“(d) Any drawl of power by a generating station for the start-up and shut-down activities of a unit.”***

## Annexure-A

### APC (in MW) of NTPC KUDGI (3 x 800 MW) during complete shutdown / RSD

Time Block		08-05-19	09-05-19	10-05-19	11-05-19	12-05-19
0:15	1	407.40	-10.12	-3.20	-16.36	-7.80
0:30	2	412.32	-17.12	-13.88	-16.72	-15.00
0:45	3	411.16	-17.36	-14.44	-16.68	-15.12
1:00	4	415.76	-19.96	-15.52	-16.32	-14.68
1:15	5	417.88	-19.16	-14.68	-16.20	-14.44
1:30	6	410.08	-17.28	-13.04	-16.40	-15.56
1:45	7	408.36	-17.00	-14.16	-16.52	-16.44
2:00	8	407.20	-16.84	-14.60	-16.80	-17.20
2:15	9	408.84	-17.32	-12.76	-16.76	-16.72
2:30	10	415.20	-15.76	-11.96	-17.00	-16.56
2:45	11	423.52	-15.96	-12.56	-17.08	-16.72
3:00	12	414.76	-16.48	-12.80	-16.40	-16.28
3:15	13	412.72	-15.20	-10.76	-16.04	-16.48
3:30	14	407.80	-17.60	-13.08	-15.48	-12.60
3:45	15	408.80	-18.20	-11.32	-15.56	-16.60
4:00	16	408.84	-17.60	-12.40	-15.08	-17.08
4:15	17	417.24	-19.00	-13.40	-15.96	-17.36
4:30	18	417.76	-17.84	-12.48	-15.68	-15.96
4:45	19	414.88	-18.52	-12.28	-16.16	-16.36
5:00	20	411.16	-18.44	-12.68	-16.44	-16.36
5:15	21	408.20	-18.92	-12.72	-16.28	-16.96
5:30	22	408.52	-17.72	-12.56	-15.72	-16.92
5:45	23	411.32	-17.52	-13.60	-15.84	-17.24
6:00	24	415.60	-18.04	-14.32	-16.44	-17.20
6:15	25	416.76	-16.36	-13.44	-16.36	-15.28
6:30	26	415.32	-16.96	-13.20	-15.56	-14.80
6:45	27	408.44	-17.24	-11.80	-16.80	-14.72
7:00	28	410.44	-17.16	-13.56	-12.72	-14.40
7:15	29	407.08	-17.88	-12.32	-17.32	-14.32
7:30	30	419.20	-17.92	-14.64	-17.44	-14.96
7:45	31	416.08	-18.20	-15.40	-17.84	-14.68
8:00	32	409.04	-17.24	-13.40	-17.56	-14.48
8:15	33	407.60	-17.64	-11.72	-17.32	-14.64
8:30	34	407.76	-17.36	-13.16	-17.80	-14.12
8:45	35	408.76	-18.20	-14.28	-17.40	-13.60
9:00	36	422.60	-18.00	-12.96	-15.24	-13.84
9:15	37	428.56	-14.00	-9.88	-11.08	-12.64
9:30	38	412.40	-6.16	-13.00	-13.96	-13.20
9:45	39	404.76	-16.20	-11.64	-14.40	-12.40
10:00	40	324.88	-16.20	-11.28	-13.88	-12.92
10:15	41	182.44	-16.04	-11.80	-13.48	-13.48
10:30	42	-30.96	-14.76	-10.60	-13.12	-12.80
10:45	43	-29.76	-15.48	-11.24	-13.88	-13.00
11:00	44	-26.96	-15.60	-10.92	-14.32	-13.52
11:15	45	-25.92	-14.76	-11.52	-14.60	-13.52
11:30	46	-17.76	-13.20	-10.52	-13.56	-14.04
11:45	47	-21.44	-10.88	-10.08	-14.24	-13.60
12:00	48	-18.44	-13.72	-10.92	-14.16	-14.24
12:15	49	-16.16	-15.28	-12.00	-14.72	-14.40
12:30	50	-17.64	-13.60	-9.60	-15.20	-14.04
12:45	51	-14.60	-13.76	-10.56	-14.04	-13.60

13:00	52	-14.88	-14.64	-10.04	-14.28	-13.92
13:15	53	-15.12	-13.24	-10.28	-14.56	-13.92
13:30	54	-7.48	-13.96	-9.60	-14.40	-14.20
13:45	55	-14.68	-14.40	-11.56	-13.80	-14.16
14:00	56	-14.44	-11.04	-11.08	-14.04	-14.12
14:15	57	-13.60	-13.60	-9.92	-14.12	-13.96
14:30	58	-14.48	-12.96	-9.76	-13.48	-14.80
14:45	59	-15.72	-14.40	-11.16	-14.48	-14.12
15:00	60	-16.04	-14.76	-11.76	-14.44	-14.68
15:15	61	-17.44	-15.04	-10.48	-15.32	-15.20
15:30	62	-14.72	-14.88	-5.96	-14.64	-15.40
15:45	63	-16.64	-11.52	-10.16	-15.16	-15.16
16:00	64	-15.68	-15.84	-10.04	-15.48	-15.04
16:15	65	-17.92	-15.32	-10.52	-15.44	-15.40
16:30	66	-17.40	-16.12	-9.80	-15.88	-15.12
16:45	67	-16.68	-14.44	-11.16	-15.76	-16.00
17:00	68	-16.28	-10.92	-10.84	-15.96	-16.40
17:15	69	-18.56	-14.88	-14.08	-15.84	-20.48
17:30	70	-18.04	-13.72	-13.84	-15.92	-19.12
17:45	71	-19.20	-14.20	-12.44	-16.64	-19.16
18:00	72	-19.72	-16.96	-14.48	-17.00	-19.88
18:15	73	-18.96	-15.80	-7.28	-17.04	-20.36
18:30	74	-18.80	-14.64	-11.68	-17.48	-20.16
18:45	75	-19.52	-16.12	-14.16	-16.96	-24.00
19:00	76	-22.88	-17.32	-15.28	-17.84	-24.60
19:15	77	-22.84	-16.72	-16.88	-16.24	-24.40
19:30	78	-23.84	-15.76	-16.20	-17.64	-24.72
19:45	79	-20.48	-17.08	-14.08	-17.56	-24.72
20:00	80	-22.44	-16.84	-15.52	-18.00	-25.48
20:15	81	-22.24	-15.48	-14.00	-15.84	-25.28
20:30	82	-21.04	-14.28	-14.16	-16.24	-24.40
20:45	83	-21.28	-13.28	-14.88	-16.00	-25.00
21:00	84	-21.28	-14.44	-15.64	-18.00	-24.40
21:15	85	-21.48	-14.96	-15.44	-15.84	-23.92
21:30	86	-20.72	-16.32	-15.60	-15.04	-23.68
21:45	87	-19.64	-16.28	-15.48	-15.72	-23.72
22:00	88	-22.08	-16.68	-15.44	-15.40	-24.44
22:15	89	-16.80	-10.64	-0.84	-14.36	-23.00
22:30	90	-19.40	-14.80	-13.48	-14.72	-24.84
22:45	91	-18.24	-14.64	-14.40	-14.60	-24.72
23:00	92	-12.80	-13.36	-13.84	-13.92	-24.52
23:15	93	-17.68	-14.44	-15.16	-14.00	-24.56
23:30	94	-17.44	-14.96	-15.64	-14.32	-24.00
23:45	95	-17.48	-13.84	-16.28	-15.24	-24.44
24:00	96	-17.36	-3.40	-16.28	-10.16	-24.84
Max		-30.96	-19.96	-16.88	-18.00	-25.48
Min		-7.48	-3.40	-0.84	-10.16	-7.80
Average		-18.75	-15.46	-12.47	-15.55	-17.33

**Note:** Unit was taken on RSD at 10.11 hours (TB-41) on 08.05.2019 and start-up activities started at 17.15 hours (TB-69) on 12.05.2019.