

Frequency Response Characteristic and Performance Computation in NorthEastern Region

On 02 April 2024, At 14:41 hrs, dip in NR solar generation of around 1840 MW (As per SCADA) was observed. As per SCADA data dip in following RE Plants are observed: 1. At Fatehgarh2: RSUPL, AHEJ2L, RSWPL, RSBPL, Devikot Solar 2. At Bikaner 765: Azure 43 PSS, Azure 43 RSS 3. At Bhadla2: Amp Energy 4. At Bhadla: SB Energy (Surya Urja), TPREL, Azure Mapple.

S No	Particulars	Dimension	Assam GBPS	Agartala GBPS	Bongaigaon TPP	Palatana	Doyang HEP	Kameng HEP	Khandong HEP	Khandong Stg-2	Kopili HEP	Loktak HEP	Panyor HEP	Pare HEP	Arunachal Pradesh	Assam	Manipur	Meghalaya	Mizoram	Nagaland	Tripura*	NER Region*	
1	Actual Net Interchange before the Event (14:40:56)	MW	-170	-86	-377	-302	0	-145	0	-24	-151	-7	0	0	154	1079	64	110	71	75	257	653	
2	Actual Net Interchange after the Event (14:42:10)	MW	-171	-88	-391	-298	0	-140	0	-22	-150	-7	0	0	154	1063	64	106	73	78	258	621	
3	Change in Net Interchange (2 - 1)	MW	-1.4	-2.2	-14.4	4.3	0.0	4.7	0.0	1.5	0.8	0.0	0.0	0.0	-0.1	-16.3	-0.6	-4.2	1.7	2.2	0.7	-32.1	
4	Generation Loss (+) / Load Throw off (-) during the Event	MW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	Control Area Response (3 - 4)	MW	-1.4	-2.2	-14.4	4.3	0.0	4.7	0.0	1.5	0.8	0.0	0.0	0.0	-0.1	-16.3	-0.6	-4.2	1.7	2.2	0.7	-32.1	
6	Frequency before the Event	HZ	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024	50.024
7	Frequency after the Event	HZ	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983	49.983
8	Change in Frequency (7 - 6)	HZ	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04
9	Frequency Response Characteristic (5 / 8)	MW/Hz	35	55	351	-105	0	-116	0	-37	-20	0	0	0	2	398	14	103	-41	-54	-16	784	
10	Frequency Response Obligation (FRO) of control area	MW/Hz	0	0	35	35	3	20	0	2	6	3	16	6	7	108	0	22	6	7	30	306	
11	Frequency Response Performance (FRP) (9/10)		NA	NA	10.07	-3.01	No Gen	-5.71	No Gen	-23.11	-3.34	-0.18	No Gen	No Gen	0.30	3.67	NA	4.72	-7.27	-7.36	-0.59	2.56	