

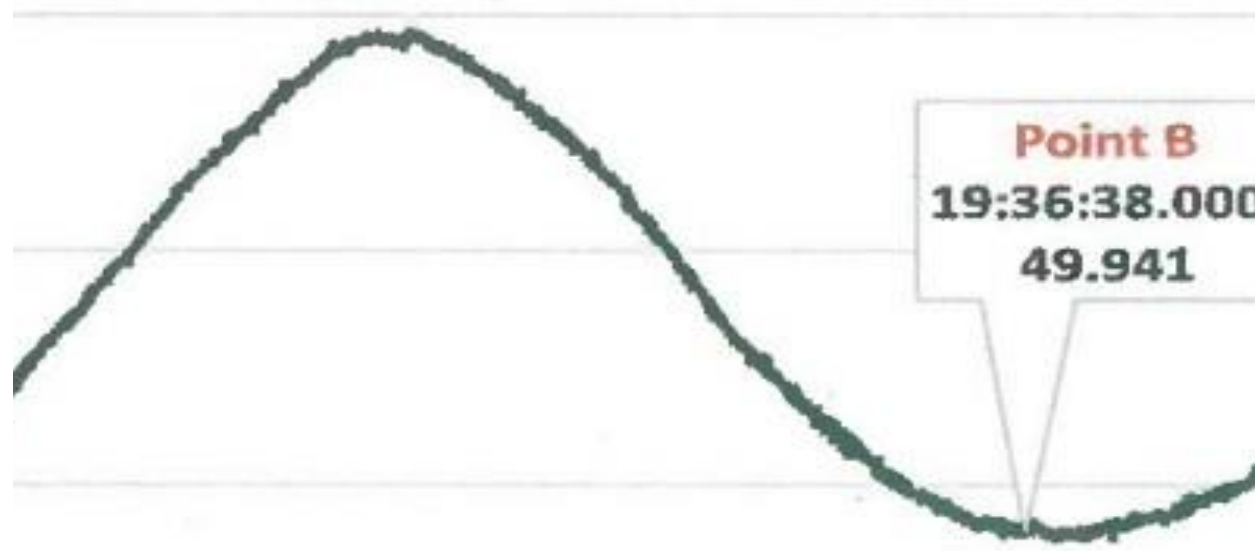
Frequency Response Characteristic and Performance Computation in NorthEastern Region (Based on SCADA data)

On 10-05-2024 at 19:08 hrs, 400 kV Khedar- Kirori Ckt-1 & 2 tripped on directional earth fault protection. 400 KV Khedar – Fatehabad loading increased to 860 MW and later at 19:35 hrs both the units-1 & 2 at Khedar (RGTPS) tripped. As per SCADA, around 1071 MW of Generation loss observed at Khedar.

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 (19:35:25)	MW	-165	-57	-670	-422	-36	-450	0	-25	-151	-105	-402	-111	127	1407	159	169	108	110	257	-205	
2	Actual Net Interchange after the Event (19:36:38)	MW	-166	-57	-677	-422	-36	-454	0	-25	-149	-105	-403	-111	130	1434	158	168	107	109	257	-174	
3	Change in Net Interchange (2 - 1)	MW	-0.3	0.1	-7.9	0.2	-0.1	-3.3	0.0	0.5	2.1	0.1	-1.0	-0.4	2.2	26.9	-0.2	-1.1	-0.2	-1.3	-0.4	31.0	
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	-0.3	0.1	-7.9	0.2	-0.1	-3.3	0.0	0.5	2.1	0.1	-1.0	-0.4	2.2	26.9	-0.2	-1.1	-0.2	-1.3	-0.4	31.0	
6	Frequency before the Event	HZ	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986	49.986
7	Frequency after the Event	HZ	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941	49.941
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	6	-2	176	-4	1	73	0	-11	-47	-2	23	9	-48	-599	3	25	4	29	9	-690	
10	Frequency Response Obligation (FRO) of control area	MW/Hz	0	0	22	22	2	13	0	1	4	2	11	4	5	70	0	14	4	5	19	197	
11	Frequency Response Performance (FRP) (9-10)		NA	NA	7.86	-6.20	0.68	5.58	No Gen	-10.92	-12.60	-1.03	2.16	2.39	-10.37	-8.60	NA	1.75	1.84	6.09	0.47	-3.51	



SOMANAHALLI



Point C
19:35:34.000,
49.905

- 19:35:40.300
- 19:35:50.440
- 19:35:54.320
- 19:35:58.200
- 19:36:02.080
- 19:36:05.960
- 19:36:09.840
- 19:36:13.720
- 19:36:17.600
- 19:36:21.480
- 19:36:25.360
- 19:36:29.240
- 19:36:33.120
- 19:36:37.000
- 19:36:40.880
- 19:36:44.760
- 19:36:48.640