

地震
発生時
想定シミュレーションケース：苫東厚真2台トリップ[°] + 1台遅れトリップ[°] (N-2 + N-1)
風力等の周波数リレーによるトリップ[°]
送電線事故 (N-4) による道東水カトリップ

地震発生後に脱落した苫東厚真2、4号機及びその他発電事業者の出力変化は次のような設定としている。

苫東厚真2号機	脱落時刻	3:08:21
	出力計	556MW→0MW
苫東厚真4号機	脱落時刻	3:08:23.6
	出力計	598MW→0MW
その他発電事業者	脱落時刻	3:08:24
	出力計	344MW→110MW

それ以外の入力データについては以下の通りとしている。

※1 シミュレーションにより再現を行うために、入力した負荷の値(ただし、入力用のため負荷遮断は反映していない)

※2 ガバナフリー機を除く

time(s)	需要 ^{※1} (MW)	苫東厚真1号機出力(MW)	水力出力計 ^{※2} (MW)	主な風力(MW)
3:00:00	3039.53	330	728.33	162
3:00:03	3048.28	331	728.38	160.9
3:00:06	3049.30	330	728.15	159.8
3:00:09	3044.27	330	727.92	159.4
3:00:12	3049.06	330	728.36	158.8
3:00:15	3050.08	330	727.69	159.7
3:00:18	3043.41	330	727.72	159.4
3:00:21	3028.90	330	728.31	158.7
3:00:24	3036.54	330	728.5	162.9
3:00:27	3035.31	330	727.97	163
3:00:30	3034.20	330	728.31	163.5
3:00:33	3031.97	330	728.38	163.7
3:00:36	3033.42	330	728.72	165.1
3:00:39	3042.55	330	727.96	165.1
3:00:42	3036.24	331	727.3	163.5
3:00:45	3031.69	331	727.34	163.6
3:00:48	3030.01	331	727.62	163.9
3:00:51	3032.58	331	726.68	163.6
3:00:54	3040.97	331	725.92	162.6
3:00:57	3039.19	331	726.7	162.7
3:01:00	3038.16	332	725.61	163.1
3:01:03	3038.40	332	726	162.6
3:01:06	3035.72	332	725.07	161.6
3:01:09	3043.24	332	724.79	162
3:01:12	3044.20	333	724.55	163.3
3:01:15	3049.72	334	724.97	163.4
3:01:18	3047.10	334	724.85	161
3:01:21	3044.89	334	722.63	161
3:01:24	3046.70	334	724.79	158.6
3:01:27	3051.53	334	723.32	158.5
3:01:30	3042.71	334	722.15	159.7
3:01:33	3053.03	334	724.32	160.4
3:01:36	3055.66	334	723.16	159.9
3:01:39	3042.20	334	723.8	160.5
3:01:42	3044.10	335	722.8	163.2
3:01:45	3045.02	334	723.36	162.4
3:01:48	3051.19	334	724.48	162.9
3:01:51	3057.38	334	723.97	164.3
3:01:54	3042.75	334	724.04	162
3:01:57	3050.25	335	724.54	162.3
3:02:00	3039.48	334	724.12	162.7
3:02:03	3037.27	334	724.06	163.1
3:02:06	3036.31	334	724.5	162.7
3:02:09	3040.68	335	724.82	161.9
3:02:12	3043.74	335	725.08	163
3:02:15	3042.53	335	724.42	162
3:02:18	3044.92	334	724.01	161.3
3:02:21	3049.60	335	725.04	160.5
3:02:24	3051.56	334	724.35	160.3
3:02:27	3048.71	334	724.85	160.5
3:02:30	3052.74	334	724.78	159.1
3:02:33	3049.06	334	724.86	158.9
3:02:36	3051.21	334	723.8	159.5
3:02:39	3053.87	334	724.06	159.1
3:02:42	3054.31	333	723.66	158.5

3:02:45	3056.90	333	723.75	159.5
3:02:48	3059.50	334	723.45	161.1
3:02:51	3053.05	333	723.4	160.6
3:02:54	3055.99	333	723.94	159.8
3:02:57	3058.25	334	724.46	159.9
3:03:00	3049.55	334	724.65	159.8
3:03:03	3050.39	334	724.99	159.2
3:03:06	3054.94	336	725.39	159.5
3:03:09	3056.18	335	725.88	158.5
3:03:12	3062.62	335	726.17	160.1
3:03:15	3061.75	336	726.65	160.1
3:03:18	3058.15	335	726.5	160.9
3:03:21	3059.31	335	727.71	159.6
3:03:24	3050.44	336	726.69	157.8
3:03:27	3044.91	336	726.41	157.3
3:03:30	3046.36	337	727.52	156.8
3:03:33	3041.94	336	727.34	156.9
3:03:36	3035.24	337	727.24	158.2
3:03:39	3049.13	337	728.08	158.8
3:03:42	3052.81	337	728.51	161.8
3:03:45	3049.97	336	727.82	161.7
3:03:48	3047.60	337	727.85	160.9
3:03:51	3048.44	337	728.59	161
3:03:54	3046.99	337	727.49	161.7
3:03:57	3041.72	337	727.92	161.2
3:04:00	3051.09	337	728.99	162.6
3:04:03	3047.96	336	728.11	163.3
3:04:06	3043.30	337	728.15	160.6
3:04:09	3044.55	337	728.11	160.4
3:04:12	3046.74	338	728.49	163.9
3:04:15	3042.37	338	728.07	164
3:04:18	3040.73	338	728.58	162.6
3:04:21	3043.20	338	727.8	163.2
3:04:24	3046.42	338	728.76	161.5
3:04:27	3053.95	339	728.8	160.9
3:04:30	3051.39	338	728.24	162.3
3:04:33	3052.69	338	728.78	162.3
3:04:36	3057.99	339	729.83	162.2
3:04:39	3057.61	338	729.36	162.4
3:04:42	3054.95	339	729.35	162.7
3:04:45	3047.91	339	729.31	162.5
3:04:48	3050.26	339	729.2	163.4
3:04:51	3052.26	339	729.15	163.1
3:04:54	3053.29	340	728.63	163.7
3:04:57	3052.87	340	729.71	164.1
3:05:00	3047.23	339	729.53	164.1
3:05:03	3041.98	339	729.72	165.5
3:05:06	3057.47	339	729.11	166.3
3:05:09	3055.22	339	730.06	166
3:05:12	3046.08	339	729.22	165.8
3:05:15	3045.68	339	729.77	167.3
3:05:18	3050.80	339	730	168
3:05:21	3036.81	339	729.7	167.4
3:05:24	3039.95	339	729.94	167.9
3:05:27	3052.56	340	730.15	167.9
3:05:30	3050.37	339	728.76	167.4
3:05:33	3051.04	339	728.79	167.8
3:05:36	3044.59	338	728.44	165.1
3:05:39	3051.61	340	729.86	164.8
3:05:42	3049.86	338	729.71	165.4
3:05:45	3045.98	338	729.33	163.7
3:05:48	3046.62	339	728.87	165.6
3:05:51	3040.34	339	729.04	166.3
3:05:54	3042.92	339	729.02	167.3
3:05:57	3048.19	339	728.94	167.6
3:06:00	3050.43	338	728.88	167.5
3:06:03	3048.38	339	728.68	166.8
3:06:06	3046.16	339	728.51	165
3:06:09	3044.47	338	728.12	165.8
3:06:12	3046.00	338	728.15	168.1
3:06:15	3037.67	338	728.12	167.6
3:06:18	3037.06	339	728.36	165.7
3:06:21	3038.54	339	728.94	166.6
3:06:24	3038.86	338	728.5	168.4
3:06:27	3042.80	339	728.84	169.4
3:06:30	3044.53	338	729.13	169.6
3:06:33	3039.00	339	728.2	169.6
3:06:36	3040.60	339	729	168.8
3:06:39	3034.62	339	729.07	168.8

3:06:42	3031.91	339	728.76	168.2
3:06:45	3041.49	338	728.49	169.4
3:06:48	3044.39	339	728.39	171.6
3:06:51	3046.52	339	728.47	170.8
3:06:54	3032.24	338	727.69	169
3:06:57	3034.13	340	728.87	168.2
3:07:00	3041.97	338	727.77	166.2
3:07:03	3033.16	340	727.45	166.1
3:07:06	3051.02	339	727.56	168.2
3:07:09	3057.03	339	728.32	167.1
3:07:12	3056.44	339	727.63	166
3:07:15	3058.11	339	727.99	165.2
3:07:18	3064.86	339	727.19	163.8
3:07:21	3067.42	340	729.2	164
3:07:24	3064.38	339	727.92	164.1
3:07:27	3061.62	339	727.95	164.7
3:07:30	3075.24	340	728.48	169
3:07:33	3068.26	339	728.45	169.5
3:07:36	3065.71	340	728.05	173.5
3:07:39	3067.62	340	727.96	174.7
3:07:42	3072.72	340	728.31	173.6
3:07:45	3073.86	340	728.21	173.7
3:07:48	3065.81	339	728.06	172.3
3:07:51	3072.32	339	727.87	172.2
3:07:54	3070.64	340	727.35	170.1
3:07:57	3060.17	340	727.52	169.1
3:08:00	3063.04	340	727.34	167.8
3:08:03	3071.49	339	727.99	167.7
3:08:06	3063.36	340	727.41	168.3
3:08:09	3060.55	339	727	166.9
3:08:12	3071.05	339	727	167.3
3:08:15	3075.37	340	727.33	165.8
3:08:18	3081.34	338	728	165.4
3:08:21	3070.00	338	728	137.5
3:08:24	3070.00	336	304	122.2
3:08:27	3070.00	298	304	61.7
3:08:30	3070.00	298	304	8.8
3:08:33	3070.00	298	304	7.5
3:08:36	3070.00	314	304	1.2
3:08:39	3070.00	314	304	1.1
3:08:42	3070.00	294	304	1.1
3:08:45	3054.34	308	304	0.9
3:08:48	3071.72	312	304	1
3:08:51	3075.71	312	304	1
3:08:54	3071.47	312	304	1
3:08:57	3060.10	312	304	0.9
3:09:00	3068.59	314	304	1
3:09:03	3077.25	316	304	1
3:09:06	3079.66	316	304	1
3:09:09	3091.33	312	304	1
3:09:12	3089.56	312	304	0.9
3:09:15	3089.06	312	304.83	1
3:09:18	3096.11	312	304.43	1
3:09:21	3100.42	310	304.53	1
3:09:24	3105.55	310	304.21	1
3:09:27	3113.04	310	304.63	0.9
3:09:30	3114.36	310	304.68	1
3:09:33	3122.33	306	304.21	0.9
3:09:36	3141.68	310	304.38	1
3:09:39	3142.77	308	305.07	1
3:09:42	3149.65	308	305.28	1
3:09:45	3146.49	306	305.19	1
3:09:48	3144.80	304	305.37	1
3:09:51	3157.67	304	305.93	0.9
3:09:54	3157.75	304	306.41	1
3:09:57	3167.53	304	305.45	1
3:10:00	3187.02	304	304.81	1
3:10:03	3193.97	304	305.09	1
3:10:06	3201.51	304	305.77	1
3:10:09	3200.70	304	306.28	0.9
3:10:12	3227.26	304	305.93	1
3:10:15	3229.43	304	306.78	1
3:10:18	3244.97	304	305.91	1.1
3:10:21	3245.43	304	306.01	1
3:10:24	3250.58	304	305.92	1
3:10:27	3258.20	304	306.14	1.1
3:10:30	3265.65	304	305.71	1.1
3:10:33	3277.95	306	307.14	1
3:10:36	3294.66	306	306.47	1

3:10:39	3302.20	304	306.43	1
3:10:42	3319.38	306	306.93	1
3:10:45	3327.39	306	306.56	1
3:10:48	3339.35	310	306.99	1
3:10:51	3352.14	308	306.49	1
3:10:54	3361.00	308	306.35	1
3:10:57	3366.27	308	307.09	1
3:11:00	3372.82	308	306.85	0.9
3:11:03	3380.31	310	307.18	1
3:11:06	3389.43	312	307.26	1
3:11:09	3388.47	312	307.31	1
3:11:12	3395.18	316	307.5	1
3:11:15	3394.47	316	307.75	1
3:11:18	3396.79	316	307.11	1
3:11:21	3402.64	318	307.17	1
3:11:24	3404.05	318	307.91	1
3:11:27	3406.79	320	308.14	0.9
3:11:30	3404.99	320	307.69	1
3:11:33	3410.44	320	307.38	1
3:11:36	3410.13	320	307.07	1
3:11:39	3412.82	320	307.55	1
3:11:42	3411.73	320	307.66	1
3:11:45	3412.84	320	307.63	1
3:11:48	3414.84	320	307.28	1
3:11:51	3414.05	320	306.65	1
3:11:54	3410.74	320	307	1
3:11:57	3417.58	320	307.48	0.9
3:12:00	3413.26	320	307.6	1
3:12:03	3408.61	320	307.76	1
3:12:06	3417.12	322	307.54	1
3:12:09	3410.44	320	308.06	1
3:12:12	3416.17	322	307.52	1
3:12:15	3410.55	320	308.01	1
3:12:18	3411.72	320	307.71	1
3:12:21	3414.58	320	308.21	1
3:12:24	3414.92	322	307.91	1
3:12:27	3421.25	324	308.34	1
3:12:30	3415.94	322	308.02	1
3:12:33	3415.69	320	307.61	0.9
3:12:36	3417.16	320	307.87	1
3:12:39	3418.89	320	307.37	1
3:12:42	3419.93	320	307.48	1.1
3:12:45	3420.83	320	306.98	1
3:12:48	3416.65	320	307.09	1.1
3:12:51	3421.56	320	306.72	1.1
3:12:54	3422.91	320	306.95	1
3:12:57	3426.56	320	306.15	1
3:13:00	3424.19	320	306.68	1.1
3:13:03	3422.44	320	306.1	0.9
3:13:06	3423.41	320	306.21	1
3:13:09	3425.48	320	306.36	1
3:13:12	3427.26	320	306.17	1
3:13:15	3427.40	320	306.81	1.1
3:13:18	3427.84	320	306.77	1
3:13:21	3428.28	322	306.23	1
3:13:24	3423.16	320	305.68	1
3:13:27	3426.39	320	306.03	0.9
3:13:30	3430.19	320	306.91	1
3:13:33	3427.25	320	306.31	1
3:13:36	3430.47	320	306.51	1
3:13:39	3430.39	320	307.33	1
3:13:42	3431.13	320	306.96	1
3:13:45	3434.07	320	306.88	1
3:13:48	3430.76	320	306.83	1
3:13:51	3431.36	320	307.17	1
3:13:54	3431.03	320	307.56	1
3:13:57	3433.80	320	308.15	0.9
3:14:00	3433.96	320	307.51	1
3:14:03	3432.84	320	307.71	1
3:14:06	3437.77	320	307.91	1
3:14:09	3433.96	320	307.93	1
3:14:12	3437.58	320	307.88	1
3:14:15	3440.65	320	308.36	1
3:14:18	3440.57	320	308.14	1
3:14:21	3440.21	320	308.1	1
3:14:24	3438.74	320	307.34	1
3:14:27	3440.16	320	307.43	1
3:14:30	3439.56	320	307.06	1
3:14:33	3439.58	320	307.61	1

3:14:36	3438.45	320	307.13	1
3:14:39	3434.85	320	307.84	1
3:14:42	3436.23	320	307.31	1
3:14:45	3438.93	320	307.31	1
3:14:48	3435.62	320	307.32	1
3:14:51	3437.34	320	307.75	1
3:14:54	3438.39	322	307.81	1
3:14:57	3436.51	322	307.83	1
3:15:00	3438.78	324	307.24	1
3:15:03	3438.16	324	307.13	0.9
3:15:06	3439.84	324	307.26	1
3:15:09	3438.65	324	307.08	1
3:15:12	3438.45	324	306.88	1
3:15:15	3442.69	326	306.89	1
3:15:18	3439.48	324	307.08	1
3:15:21	3440.09	324	306.99	1.3
3:15:24	3440.28	324	306.34	1.7
3:15:27	3440.91	324	306.11	2.1
3:15:30	3441.86	324	305.72	2.8
3:15:33	3441.86	324	306.4	3.3
3:15:36	3442.75	324	305.85	3.3
3:15:39	3443.22	326	306.06	3.3
3:15:42	3450.12	328	306.48	3.9
3:15:45	3452.26	328	306.09	4.1
3:15:48	3450.48	328	307.07	4.1
3:15:51	3448.14	328	306.52	3.9
3:15:54	3450.24	328	306.37	4
3:15:57	3448.28	328	306.79	3.8
3:16:00	3450.82	328	306.66	3.5
3:16:03	3452.64	328	306.97	3.6
3:16:06	3455.38	330	306.31	3.7
3:16:09	3447.87	330	306.1	3.6
3:16:12	3446.89	332	306.11	3.6
3:16:15	3449.55	332	306.39	3.8
3:16:18	3451.00	336	306.28	3.7
3:16:21	3457.99	336	307.04	3.7
3:16:24	3459.51	338	307.37	3.7
3:16:27	3458.43	340	306.62	3.7
3:16:30	3454.97	336	307.05	3.7
3:16:33	3456.32	338	306.49	3.7
3:16:36	3457.45	340	306.75	3.8
3:16:39	3454.30	340	305.66	3.7
3:16:42	3458.18	340	306.37	3.7
3:16:45	3456.89	340	307.43	3.7
3:16:48	3457.81	340	307.27	3.8
3:16:51	3461.60	340	306.56	3.7
3:16:54	3459.31	340	306.48	3.6
3:16:57	3458.51	340	306.68	3.7
3:17:00	3459.41	340	306.64	3.7
3:17:03	3461.95	340	306.9	3.7
3:17:06	3463.41	340	306.55	3.6
3:17:09	3458.69	340	306.48	3.6
3:17:12	3463.84	340	306.75	3.6
3:17:15	3458.76	340	306.34	3.6
3:17:18	3462.45	340	306.86	3.6
3:17:21	3460.09	340	305.93	3.8
3:17:24	3461.91	340	305.82	3.8
3:17:27	3459.20	340	306.45	3.8
3:17:30	3461.25	340	306.94	3.8
3:17:33	3461.01	340	306.69	3.9
3:17:36	3460.35	340	306.25	3.9
3:17:39	3461.16	340	306.74	3.7
3:17:42	3460.58	340	306.84	3.6
3:17:45	3464.37	340	306.54	3.7
3:17:48	3459.21	340	306.59	3.6
3:17:51	3460.06	340	306.52	3.6
3:17:54	3460.60	340	306.53	3.6
3:17:57	3461.02	340	306.81	3.6
3:18:00	3457.95	340	305.73	3.5
3:18:03	3453.44	340	306.1	3.3
3:18:06	3451.97	340	306.01	3.1
3:18:09	3454.34	340	306.41	3.1
3:18:12	3455.28	340	305.49	3.2
3:18:15	3450.71	340	306.13	3.3
3:18:18	3454.58	340	305.72	3.3
3:18:21	3449.92	340	305.89	3.6
3:18:24	3443.27	338	306.19	3.6
3:18:27	3450.72	340	306.4	3.7
3:18:30	3448.14	338	306.62	3.8

3:18:33	3449.53	340	307.21	3.9
3:18:36	3448.64	340	306.62	2.9
3:18:39	3447.87	338	307.47	2.8
3:18:42	3449.19	340	307.72	2.9
3:18:45	3449.87	338	307.16	2.9
3:18:48	3450.28	338	307.79	2.9
3:18:51	3446.32	338	308.11	2.9
3:18:54	3444.62	338	307.41	3
3:18:57	3448.55	338	307.62	3
3:19:00	3449.51	338	307.2	3.1
3:19:03	3450.71	340	307.7	3.3
3:19:06	3448.81	338	307.8	3.2
3:19:09	3446.21	336	307.6	3
3:19:12	3449.91	338	307.27	2.7
3:19:15	3445.09	336	307.02	2.7
3:19:18	3441.52	336	307.34	2.8
3:19:21	3441.90	336	307.37	2.7
3:19:24	3439.07	336	307.5	2.8
3:19:27	3445.43	336	308.46	2.7
3:19:30	3443.40	336	308	2.9
3:19:33	3447.72	336	307.3	2.9
3:19:36	3445.95	334	306.92	2.7
3:19:39	3442.74	334	307.27	2.7
3:19:42	3434.55	332	307.08	2.7
3:19:45	3430.38	332	307.87	2.9
3:19:48	3433.98	332	307.54	2.9
3:19:51	3435.96	332	308.65	3
3:19:54	3438.64	328	308.26	2.9
3:19:57	3435.84	322	307.47	2.9
3:20:00	3428.44	320	306.42	2.9
3:20:03	3429.06	322	307.48	2.7
3:20:06	3431.69	324	307.46	2.7
3:20:09	3432.62	324	307.81	2.7
3:20:12	3438.50	326	308.57	2.7
3:20:15	3437.24	324	307.56	2.8
3:20:18	3437.44	324	306.91	2.8
3:20:21	3431.57	324	307.02	2.8
3:20:24	3428.19	320	306.75	2.8
3:20:27	3431.69	320	306.99	2.9
3:20:30	3428.50	318	308.65	2.8
3:20:33	3421.32	308	309.27	2.7
3:20:36	3421.75	304	308.25	2.7
3:20:39	3419.40	304	307.76	2.8
3:20:42	3421.70	306	308.24	2.8
3:20:45	3421.64	306	307.8	2.8
3:20:48	3419.52	298	308.3	2.6
3:20:51	3414.13	296	308.04	2.6
3:20:54	3416.17	296	307.86	2.7
3:20:57	3414.97	296	307.9	2.6
3:21:00	3419.44	296	308.72	2.6
3:21:03	3418.50	292	310.34	2.7
3:21:06	3410.82	280	310.44	2.7
3:21:09	3409.40	272	310.24	2.7
3:21:12	3416.86	268	309.77	2.7
3:21:15	3412.06	260	309.19	2.7
3:21:18	3411.82	256	308.69	2.7
3:21:21	3413.00	256	307.96	2.7
3:21:24	3412.59	256	308.12	2.7
3:21:27	3413.67	256	309.25	2.7
3:21:30	3411.99	248	310.26	2.7
3:21:33	3413.48	242	310.71	2.7
3:21:36	3409.83	240	309.08	2.7
3:21:39	3409.05	236	308.6	2.7
3:21:42	3409.91	236	308.23	2.6
3:21:45	3409.41	236	308.38	2.7
3:21:48	3409.48	232	308.85	2.7
3:21:51	3410.53	230	309.35	2.7
3:21:54	3407.65	224	309.78	2.7
3:21:57	3405.77	220	310.04	2.7
3:22:00	3404.53	214	310.12	2.7
3:22:03	3402.58	208	310.48	2.5
3:22:06	3402.38	206	310.33	2.6
3:22:09	3408.10	206	310.36	2.5
3:22:12	3401.87	200	310.75	2.5
3:22:15	3401.84	198	312.07	2.4
3:22:18	3402.13	192	312.27	2.3
3:22:21	3410.00	182	308.37	2.2
3:22:24	3410.00	174	299.03	2.3
3:22:27	3410.00	134	300.59	2.3

3:22:30	3410.00	134	305.73	2.4
3:22:33	3410.00	130	305.52	2.4
3:22:36	3410.00	122	306.71	2.4
3:22:39	3402.76	122	307.08	2.4
3:22:42	3408.82	122	309.19	2.3
3:22:45	3414.26	120	309.63	2.3
3:22:48	3420.43	122	310.65	2.3
3:22:51	3413.94	122	310.28	2.3
3:22:54	3416.49	120	309.33	2.2
3:22:57	3415.01	118	308.16	2.3
3:23:00	3412.25	113	307.08	2.3
3:23:03	3415.71	113	306.8	2.3
3:23:06	3412.26	111	306.51	2.2
3:23:09	3412.51	109	306.24	2.1
3:23:12	3411.07	109	306.19	2.1
3:23:15	3413.02	109	306.67	2.3
3:23:18	3415.58	109	306.42	2.3
3:23:21	3415.58	109	306.34	2.4
3:23:24	3415.50	109	305.96	2.4
3:23:27	3417.29	109	306.43	2.4
3:23:30	3418.14	109	306.62	2.4
3:23:33	3417.04	109	306.51	2.3
3:23:36	3418.78	109	306.66	2.3
3:23:39	3420.98	109	307.21	2.3
3:23:42	3420.81	109	307.64	2.2
3:23:45	3423.37	109	306.86	2.2
3:23:48	3423.69	109	306.36	2.2
3:23:51	3419.39	107	306.21	2.1
3:23:54	3415.03	105	306.51	2
3:23:57	3411.52	105	306.52	1.7
3:24:00	3418.77	109	307.29	1.8
3:24:03	3416.58	109	307.02	1.8
3:24:06	3423.28	111	306.24	1.7
3:24:09	3418.31	113	305.49	1.8
3:24:12	3414.97	113	305.26	1.9
3:24:15	3409.36	113	305.32	2.1
3:24:18	3409.79	115	305.47	2.4
3:24:21	3411.34	117	306.15	2.6
3:24:24	3415.86	121	306.95	2.6
3:24:27	3417.63	121	307.3	2.6
3:24:30	3417.63	121	307.39	2.6
3:24:33	3417.66	121	306.5	2.8
3:24:36	3416.39	121	306.46	2.7
3:24:39	3412.38	121	305.66	2.6
3:24:42	3413.47	121	306.37	2.4
3:24:45	3411.26	121	306.92	2.5
3:24:48	3410.80	117	308.61	2.7
3:24:51	3407.95	111	309.73	2.7
3:24:54	3410.56	103	310.47	2.3
3:24:57	3414.05	93	310.33	2.2
3:25:00	3420.22	87	306	2.2
3:25:03	3425.55	65	306	2.4
3:25:06	3431.00	0	306	2.6
3:25:09	3431.00	0	306	2.6
3:25:12	3431.00	0	306	2.5
3:25:15	3431.00	0	306	2.5
3:25:18	3431.00	0	306	2.5
3:25:21	3431.00	0	306	2.6
3:25:24	3431.00	0	306	2.5
3:25:27	3431.00	0	306	2.5
3:25:30	3431.00	0	306	0.1
3:25:33	3431.00	0	306	0.1
3:25:36	3431.00	0	306	0.1
3:25:39	3431.00	0	306	0.1
3:25:42	3431.00	0	306	0.1
3:25:45	3431.00	0	306	0.1
3:25:48	3431.00	0	306	0.1
3:25:51	3431.00	0	306	0.1
3:25:54	3431.00	0	306	0.1
3:25:57	3431.00	0	306	0.1
3:26:00	3431.00	0	306	0.1
3:26:03	3431.00	0	306	0.1
3:26:06	3431.00	0	306	0.1
3:26:09	3431.00	0	306	0.1
3:26:12	3431.00	0	306	0
3:26:15	3431.00	0	306	0.1
3:26:18	3431.00	0	306	0.1
3:26:21	3431.00	0	306	0.1
3:26:24	3431.00	0	306	0.1

3:26:27	3431.00	0	306	0
3:26:30	3431.00	0	306	0
3:26:33	3431.00	0	306	0.1
3:26:36	3431.00	0	306	0.1
3:26:39	3431.00	0	306	0
3:26:42	3431.00	0	306	0.1
3:26:45	3431.00	0	306	0.1
3:26:48	3431.00	0	306	0.1
3:26:51	3431.00	0	306	0.1
3:26:54	3431.00	0	306	0.1
3:26:57	3431.00	0	306	0.1
3:27:00	3431.00	0	306	0.1
3:27:03	3431.00	0	306	0.1
3:27:06	3431.00	0	306	0.1
3:27:09	3431.00	0	306	0.1
3:27:12	3431.00	0	306	0.1
3:27:15	3431.00	0	306	0.1
3:27:18	3431.00	0	306	0.1
3:27:21	3431.00	0	306	0.1
3:27:24	3431.00	0	306	0.1
3:27:27	3431.00	0	306	0.1
3:27:30	3431.00	0	306	0
3:27:33	3431.00	0	306	0.1
3:27:36	3431.00	0	306	0
3:27:39	3431.00	0	306	0.1
3:27:42	3431.00	0	306	0.1
3:27:45	3431.00	0	306	0.1
3:27:48	3431.00	0	306	0.1
3:27:51	3431.00	0	306	0.1
3:27:54	3431.00	0	306	0.1
3:27:57	3431.00	0	306	0.1
3:28:00	3431.00	0	306	0.1
3:28:03	3431.00	0	306	0.1
3:28:06	3431.00	0	306	0
3:28:09	3431.00	0	306	0.1
3:28:12	3431.00	0	306	0.1
3:28:15	3431.00	0	306	0.1
3:28:18	3431.00	0	306	0.1
3:28:21	3431.00	0	306	0.1
3:28:24	3431.00	0	306	0.1
3:28:27	3431.00	0	306	0.1
3:28:30	3431.00	0	306	0.1
3:28:33	3431.00	0	306	0.1
3:28:36	3431.00	0	306	0.1
3:28:39	3431.00	0	306	0.1
3:28:42	3431.00	0	306	0.1
3:28:45	3431.00	0	306	0.1
3:28:48	3431.00	0	306	0.1
3:28:51	3431.00	0	306	0.1
3:28:54	3431.00	0	306	0.1
3:28:57	3431.00	0	306	0.1
3:29:00	3431.00	0	306	0
3:29:03	3431.00	0	306	0.1
3:29:06	3431.00	0	306	0.1
3:29:09	3431.00	0	306	0.1
3:29:12	3431.00	0	306	0.1
3:29:15	3431.00	0	306	0.1
3:29:18	3431.00	0	306	0.1
3:29:21	3431.00	0	306	0
3:29:24	3431.00	0	306	0.1
3:29:27	3431.00	0	306	0.1
3:29:30	3431.00	0	306	0.1
3:29:33	3431.00	0	306	0
3:29:36	3431.00	0	306	0.1
3:29:39	3431.00	0	306	0.1
3:29:42	3431.00	0	306	0.1
3:29:45	3431.00	0	306	0.1
3:29:48	3431.00	0	306	0.1
3:29:51	3431.00	0	306	0
3:29:54	3431.00	0	306	0.1
3:29:57	3431.00	0	306	0.1
3:30:00	3431.00	0	306	0.1

地震発生時想定

シミュレーションケース：苫東厚真2台トリップ+ 1台遅れトリップ (N-2 + N-1)
 風力等の周波数リレーによるトリップ
 送電線事故 (N-4) による道東水カトリップ

京極2台 緊急起動

地震発生後に脱落した苫東厚真2、4号機及びその他発電事業者の出力変化は次のような設定としている。

苫東厚真2号機	脱落時刻	3:08:21
	出力計	556MW→0MW
苫東厚真4号機	脱落時刻	3:08:23.6
	出力計	598MW→0MW
その他発電事業者	脱落時刻	3:08:24
	出力計	344MW→110MW

緊急起動させる京極発電所2台の出力変化は次のように設定している。

京極発電所2台	起動時刻	3:11:24	出力最大時刻	3:12:24
	出力計	0MW	出力計	400MW

それ以外の入力データについては以下の通りとしている。

※1 シミュレーションにより再現を行うために、入力した負荷の値(ただし、入力用のため負荷遮断は反映していない)

※2 ガバナフリー機を除く

time(s)	需要 ^{※1} (MW)	苫東厚真1号機出力(MW)	水力出力計 ^{※2} (MW)	主な風力(MW)
3:00:00	3039.53	330	728.33	162
3:00:03	3048.28	331	728.38	160.9
3:00:06	3049.30	330	728.15	159.8
3:00:09	3044.27	330	727.92	159.4
3:00:12	3049.06	330	728.36	158.8
3:00:15	3050.08	330	727.69	159.7
3:00:18	3043.41	330	727.72	159.4
3:00:21	3028.90	330	728.31	158.7
3:00:24	3036.54	330	728.5	162.9
3:00:27	3035.31	330	727.97	163
3:00:30	3034.20	330	728.31	163.5
3:00:33	3031.97	330	728.38	163.7
3:00:36	3033.42	330	728.72	165.1
3:00:39	3042.55	330	727.96	165.1
3:00:42	3036.24	331	727.3	163.5
3:00:45	3031.69	331	727.34	163.6
3:00:48	3030.01	331	727.62	163.9
3:00:51	3032.58	331	726.68	163.6
3:00:54	3040.97	331	725.92	162.6
3:00:57	3039.19	331	726.7	162.7
3:01:00	3038.16	332	725.61	163.1
3:01:03	3038.40	332	726	162.6
3:01:06	3035.72	332	725.07	161.6
3:01:09	3043.24	332	724.79	162
3:01:12	3044.20	333	724.55	163.3
3:01:15	3049.72	334	724.97	163.4
3:01:18	3047.10	334	724.85	161
3:01:21	3044.89	334	722.63	161
3:01:24	3046.70	334	724.79	158.6
3:01:27	3051.53	334	723.32	158.5
3:01:30	3042.71	334	722.15	159.7
3:01:33	3053.03	334	724.32	160.4
3:01:36	3055.66	334	723.16	159.9
3:01:39	3042.20	334	723.8	160.5
3:01:42	3044.10	335	722.8	163.2
3:01:45	3045.02	334	723.36	162.4
3:01:48	3051.19	334	724.48	162.9
3:01:51	3057.38	334	723.97	164.3
3:01:54	3042.75	334	724.04	162
3:01:57	3050.25	335	724.54	162.3
3:02:00	3039.48	334	724.12	162.7
3:02:03	3037.27	334	724.06	163.1
3:02:06	3036.31	334	724.5	162.7
3:02:09	3040.68	335	724.82	161.9
3:02:12	3043.74	335	725.08	163
3:02:15	3042.53	335	724.42	162
3:02:18	3044.92	334	724.01	161.3
3:02:21	3049.60	335	725.04	160.5
3:02:24	3051.56	334	724.35	160.3
3:02:27	3048.71	334	724.85	160.5
3:02:30	3052.74	334	724.78	159.1
3:02:33	3049.06	334	724.86	158.9

3:02:36	3051.21	334	723.8	159.5
3:02:39	3053.87	334	724.06	159.1
3:02:42	3054.31	333	723.66	158.5
3:02:45	3056.90	333	723.75	159.5
3:02:48	3059.50	334	723.45	161.1
3:02:51	3053.05	333	723.4	160.6
3:02:54	3055.99	333	723.94	159.8
3:02:57	3058.25	334	724.46	159.9
3:03:00	3049.55	334	724.65	159.8
3:03:03	3050.39	334	724.99	159.2
3:03:06	3054.94	336	725.39	159.5
3:03:09	3056.18	335	725.88	158.5
3:03:12	3062.62	335	726.17	160.1
3:03:15	3061.75	336	726.65	160.1
3:03:18	3058.15	335	726.5	160.9
3:03:21	3059.31	335	727.71	159.6
3:03:24	3050.44	336	726.69	157.8
3:03:27	3044.91	336	726.41	157.3
3:03:30	3046.36	337	727.52	156.8
3:03:33	3041.94	336	727.34	156.9
3:03:36	3035.24	337	727.24	158.2
3:03:39	3049.13	337	728.08	158.8
3:03:42	3052.81	337	728.51	161.8
3:03:45	3049.97	336	727.82	161.7
3:03:48	3047.60	337	727.85	160.9
3:03:51	3048.44	337	728.59	161
3:03:54	3046.99	337	727.49	161.7
3:03:57	3041.72	337	727.92	161.2
3:04:00	3051.09	337	728.99	162.6
3:04:03	3047.96	336	728.11	163.3
3:04:06	3043.30	337	728.15	160.6
3:04:09	3044.55	337	728.11	160.4
3:04:12	3046.74	338	728.49	163.9
3:04:15	3042.37	338	728.07	164
3:04:18	3040.73	338	728.58	162.6
3:04:21	3043.20	338	727.8	163.2
3:04:24	3046.42	338	728.76	161.5
3:04:27	3053.95	339	728.8	160.9
3:04:30	3051.39	338	728.24	162.3
3:04:33	3052.69	338	728.78	162.3
3:04:36	3057.99	339	729.83	162.2
3:04:39	3057.61	338	729.36	162.4
3:04:42	3054.95	339	729.35	162.7
3:04:45	3047.91	339	729.31	162.5
3:04:48	3050.26	339	729.2	163.4
3:04:51	3052.26	339	729.15	163.1
3:04:54	3053.29	340	728.63	163.7
3:04:57	3052.87	340	729.71	164.1
3:05:00	3047.23	339	729.53	164.1
3:05:03	3041.98	339	729.72	165.5
3:05:06	3057.47	339	729.11	166.3
3:05:09	3055.22	339	730.06	166
3:05:12	3046.08	339	729.22	165.8
3:05:15	3045.68	339	729.77	167.3
3:05:18	3050.80	339	730	168
3:05:21	3036.81	339	729.7	167.4
3:05:24	3039.95	339	729.94	167.9
3:05:27	3052.56	340	730.15	167.9
3:05:30	3050.37	339	728.76	167.4
3:05:33	3051.04	339	728.79	167.8
3:05:36	3044.59	338	728.44	165.1
3:05:39	3051.61	340	729.86	164.8
3:05:42	3049.86	338	729.71	165.4
3:05:45	3045.98	338	729.33	163.7
3:05:48	3046.62	339	728.87	165.6
3:05:51	3040.34	339	729.04	166.3
3:05:54	3042.92	339	729.02	167.3
3:05:57	3048.19	339	728.94	167.6
3:06:00	3050.43	338	728.88	167.5
3:06:03	3048.38	339	728.68	166.8
3:06:06	3046.16	339	728.51	165
3:06:09	3044.47	338	728.12	165.8
3:06:12	3046.00	338	728.15	168.1
3:06:15	3037.67	338	728.12	167.6
3:06:18	3037.06	339	728.36	165.7
3:06:21	3038.54	339	728.94	166.6
3:06:24	3038.86	338	728.5	168.4
3:06:27	3042.80	339	728.84	169.4
3:06:30	3044.53	338	729.13	169.6

3:06:33	3039.00	339	728.2	169.6
3:06:36	3040.60	339	729	168.8
3:06:39	3034.62	339	729.07	168.8
3:06:42	3031.91	339	728.76	168.2
3:06:45	3041.49	338	728.49	169.4
3:06:48	3044.39	339	728.39	171.6
3:06:51	3046.52	339	728.47	170.8
3:06:54	3032.24	338	727.69	169
3:06:57	3034.13	340	728.87	168.2
3:07:00	3041.97	338	727.77	166.2
3:07:03	3033.16	340	727.45	166.1
3:07:06	3051.02	339	727.56	168.2
3:07:09	3057.03	339	728.32	167.1
3:07:12	3056.44	339	727.63	166
3:07:15	3058.11	339	727.99	165.2
3:07:18	3064.86	339	727.19	163.8
3:07:21	3067.42	340	729.2	164
3:07:24	3064.38	339	727.92	164.1
3:07:27	3061.62	339	727.95	164.7
3:07:30	3075.24	340	728.48	169
3:07:33	3068.26	339	728.45	169.5
3:07:36	3065.71	340	728.05	173.5
3:07:39	3067.62	340	727.96	174.7
3:07:42	3072.72	340	728.31	173.6
3:07:45	3073.86	340	728.21	173.7
3:07:48	3065.81	339	728.06	172.3
3:07:51	3072.32	339	727.87	172.2
3:07:54	3070.64	340	727.35	170.1
3:07:57	3060.17	340	727.52	169.1
3:08:00	3063.04	340	727.34	167.8
3:08:03	3071.49	339	727.99	167.7
3:08:06	3063.36	340	727.41	168.3
3:08:09	3060.55	339	727	166.9
3:08:12	3071.05	339	727	167.3
3:08:15	3075.37	340	727.33	165.8
3:08:18	3081.34	338	728	165.4
3:08:21	3070.00	338	728	137.5
3:08:24	3070.00	336	304	122.2
3:08:27	3070.00	298	304	61.7
3:08:30	3070.00	298	304	8.8
3:08:33	3070.00	298	304	7.5
3:08:36	3070.00	314	304	1.2
3:08:39	3070.00	314	304	1.1
3:08:42	3070.00	294	304	1.1
3:08:45	3054.34	308	304	0.9
3:08:48	3071.72	312	304	1
3:08:51	3075.71	312	304	1
3:08:54	3071.47	312	304	1
3:08:57	3060.10	312	304	0.9
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3:09:03	3077.25	316	304	1
3:09:06	3079.66	316	304	1
3:09:09	3091.33	312	304	1
3:09:12	3089.56	312	304	0.9
3:09:15	3089.06	312	304.83	1
3:09:18	3096.11	312	304.43	1
3:09:21	3100.42	310	304.53	1
3:09:24	3105.55	310	304.21	1
3:09:27	3057.04	310	304.63	0.9
3:09:30	3058.36	310	304.68	1
3:09:33	3066.33	306	304.21	0.9
3:09:36	3085.68	310	304.38	1
3:09:39	3086.77	308	305.07	1
3:09:42	3093.65	308	305.28	1
3:09:45	3090.49	306	305.19	1
3:09:48	3088.80	304	305.37	1
3:09:51	3101.67	304	305.93	0.9
3:09:54	3101.75	304	306.41	1
3:09:57	3111.53	304	305.45	1
3:10:00	3131.02	304	304.81	1
3:10:03	3137.97	304	305.09	1
3:10:06	3145.51	304	305.77	1
3:10:09	3144.70	304	306.28	0.9
3:10:12	3171.26	304	305.93	1
3:10:15	3173.43	304	306.78	1
3:10:18	3188.97	304	305.91	1.1
3:10:21	3189.43	304	306.01	1
3:10:24	3194.58	304	305.92	1
3:10:27	3202.20	304	306.14	1.1

3:10:30	3209.65	304	305.71	1.1
3:10:33	3221.95	306	307.14	1
3:10:36	3238.66	306	306.47	1
3:10:39	3246.20	304	306.43	1
3:10:42	3263.38	306	306.93	1
3:10:45	3271.39	306	306.56	1
3:10:48	3283.35	310	306.99	1
3:10:51	3296.14	308	306.49	1
3:10:54	3305.00	308	306.35	1
3:10:57	3310.27	308	307.09	1
3:11:00	3316.82	308	306.85	0.9
3:11:03	3324.31	310	307.18	1
3:11:06	3333.43	312	307.26	1
3:11:09	3332.47	312	307.31	1
3:11:12	3339.18	316	307.5	1
3:11:15	3338.47	316	307.75	1
3:11:18	3340.79	316	307.11	1
3:11:21	3346.64	318	307.17	1
3:11:24	3348.05	318	307.91	1
3:11:27	3350.79	320	308.14	0.9
3:11:30	3348.99	320	307.69	1
3:11:33	3354.44	320	307.38	1
3:11:36	3354.13	320	307.07	1
3:11:39	3356.82	320	307.55	1
3:11:42	3355.73	320	307.66	1
3:11:45	3356.84	320	307.63	1
3:11:48	3358.84	320	307.28	1
3:11:51	3358.05	320	306.65	1
3:11:54	3354.74	320	307	1
3:11:57	3361.58	320	307.48	0.9
3:12:00	3357.26	320	307.6	1
3:12:03	3352.61	320	307.76	1
3:12:06	3361.12	322	307.54	1
3:12:09	3354.44	320	308.06	1
3:12:12	3360.17	322	307.52	1
3:12:15	3354.55	320	308.01	1
3:12:18	3355.72	320	307.71	1
3:12:21	3358.58	320	308.21	1
3:12:24	3358.92	322	307.91	1
3:12:27	3365.25	324	308.34	1
3:12:30	3359.94	322	308.02	1
3:12:33	3359.69	320	307.61	0.9
3:12:36	3361.16	320	307.87	1
3:12:39	3362.89	320	307.37	1
3:12:42	3363.93	320	307.48	1.1
3:12:45	3364.83	320	306.98	1
3:12:48	3360.65	320	307.09	1.1
3:12:51	3365.56	320	306.72	1.1
3:12:54	3366.91	320	306.95	1
3:12:57	3370.56	320	306.15	1
3:13:00	3368.19	320	306.68	1.1
3:13:03	3366.44	320	306.1	0.9
3:13:06	3367.41	320	306.21	1
3:13:09	3369.48	320	306.36	1
3:13:12	3371.26	320	306.17	1
3:13:15	3371.40	320	306.81	1.1
3:13:18	3371.84	320	306.77	1
3:13:21	3372.28	322	306.23	1
3:13:24	3367.16	320	305.68	1
3:13:27	3370.39	320	306.03	0.9
3:13:30	3374.19	320	306.91	1
3:13:33	3371.25	320	306.31	1
3:13:36	3374.47	320	306.51	1
3:13:39	3374.39	320	307.33	1
3:13:42	3375.13	320	306.96	1
3:13:45	3378.07	320	306.88	1
3:13:48	3374.76	320	306.83	1
3:13:51	3375.36	320	307.17	1
3:13:54	3375.03	320	307.56	1
3:13:57	3377.80	320	308.15	0.9
3:14:00	3377.96	320	307.51	1
3:14:03	3376.84	320	307.71	1
3:14:06	3381.77	320	307.91	1
3:14:09	3377.96	320	307.93	1
3:14:12	3381.58	320	307.88	1
3:14:15	3384.65	320	308.36	1
3:14:18	3384.57	320	308.14	1
3:14:21	3384.21	320	308.1	1
3:14:24	3382.74	320	307.34	1

3:14:27	3384.16	320	307.43	1
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3:14:33	3383.58	320	307.61	1
3:14:36	3382.45	320	307.13	1
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3:15:09	3382.65	324	307.08	1
3:15:12	3382.45	324	306.88	1
3:15:15	3386.69	326	306.89	1
3:15:18	3383.48	324	307.08	1
3:15:21	3384.09	324	306.99	1.3
3:15:24	3384.28	324	306.34	1.7
3:15:27	3384.91	324	306.11	2.1
3:15:30	3385.86	324	305.72	2.8
3:15:33	3385.86	324	306.4	3.3
3:15:36	3386.75	324	305.85	3.3
3:15:39	3387.22	326	306.06	3.3
3:15:42	3394.12	328	306.48	3.9
3:15:45	3396.26	328	306.09	4.1
3:15:48	3394.48	328	307.07	4.1
3:15:51	3392.14	328	306.52	3.9
3:15:54	3394.24	328	306.37	4
3:15:57	3392.28	328	306.79	3.8
3:16:00	3394.82	328	306.66	3.5
3:16:03	3396.64	328	306.97	3.6
3:16:06	3399.38	330	306.31	3.7
3:16:09	3391.87	330	306.1	3.6
3:16:12	3390.89	332	306.11	3.6
3:16:15	3393.55	332	306.39	3.8
3:16:18	3395.00	336	306.28	3.7
3:16:21	3401.99	336	307.04	3.7
3:16:24	3403.51	338	307.37	3.7
3:16:27	3402.43	340	306.62	3.7
3:16:30	3398.97	336	307.05	3.7
3:16:33	3400.32	338	306.49	3.7
3:16:36	3401.45	340	306.75	3.8
3:16:39	3398.30	340	305.66	3.7
3:16:42	3402.18	340	306.37	3.7
3:16:45	3400.89	340	307.43	3.7
3:16:48	3401.81	340	307.27	3.8
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3:16:54	3403.31	340	306.48	3.6
3:16:57	3402.51	340	306.68	3.7
3:17:00	3403.41	340	306.64	3.7
3:17:03	3405.95	340	306.9	3.7
3:17:06	3407.41	340	306.55	3.6
3:17:09	3402.69	340	306.48	3.6
3:17:12	3407.84	340	306.75	3.6
3:17:15	3402.76	340	306.34	3.6
3:17:18	3406.45	340	306.86	3.6
3:17:21	3404.09	340	305.93	3.8
3:17:24	3405.91	340	305.82	3.8
3:17:27	3403.20	340	306.45	3.8
3:17:30	3405.25	340	306.94	3.8
3:17:33	3405.01	340	306.69	3.9
3:17:36	3404.35	340	306.25	3.9
3:17:39	3405.16	340	306.74	3.7
3:17:42	3404.58	340	306.84	3.6
3:17:45	3408.37	340	306.54	3.7
3:17:48	3403.21	340	306.59	3.6
3:17:51	3404.06	340	306.52	3.6
3:17:54	3404.60	340	306.53	3.6
3:17:57	3405.02	340	306.81	3.6
3:18:00	3401.95	340	305.73	3.5
3:18:03	3397.44	340	306.1	3.3
3:18:06	3395.97	340	306.01	3.1
3:18:09	3398.34	340	306.41	3.1
3:18:12	3399.28	340	305.49	3.2
3:18:15	3394.71	340	306.13	3.3
3:18:18	3398.58	340	305.72	3.3
3:18:21	3393.92	340	305.89	3.6

3:18:24	3387.27	338	306.19	3.6
3:18:27	3394.72	340	306.4	3.7
3:18:30	3392.14	338	306.62	3.8
3:18:33	3393.53	340	307.21	3.9
3:18:36	3392.64	340	306.62	2.9
3:18:39	3391.87	338	307.47	2.8
3:18:42	3393.19	340	307.72	2.9
3:18:45	3393.87	338	307.16	2.9
3:18:48	3394.28	338	307.79	2.9
3:18:51	3390.32	338	308.11	2.9
3:18:54	3388.62	338	307.41	3
3:18:57	3392.55	338	307.62	3
3:19:00	3393.51	338	307.2	3.1
3:19:03	3394.71	340	307.7	3.3
3:19:06	3392.81	338	307.8	3.2
3:19:09	3390.21	336	307.6	3
3:19:12	3393.91	338	307.27	2.7
3:19:15	3389.09	336	307.02	2.7
3:19:18	3385.52	336	307.34	2.8
3:19:21	3385.90	336	307.37	2.7
3:19:24	3383.07	336	307.5	2.8
3:19:27	3389.43	336	308.46	2.7
3:19:30	3387.40	336	308	2.9
3:19:33	3391.72	336	307.3	2.9
3:19:36	3389.95	334	306.92	2.7
3:19:39	3386.74	334	307.27	2.7
3:19:42	3378.55	332	307.08	2.7
3:19:45	3374.38	332	307.87	2.9
3:19:48	3377.98	332	307.54	2.9
3:19:51	3379.96	332	308.65	3
3:19:54	3382.64	328	308.26	2.9
3:19:57	3379.84	322	307.47	2.9
3:20:00	3372.44	320	306.42	2.9
3:20:03	3373.06	322	307.48	2.7
3:20:06	3375.69	324	307.46	2.7
3:20:09	3376.62	324	307.81	2.7
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3:20:15	3381.24	324	307.56	2.8
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3:20:21	3375.57	324	307.02	2.8
3:20:24	3372.19	320	306.75	2.8
3:20:27	3375.69	320	306.99	2.9
3:20:30	3372.50	318	308.65	2.8
3:20:33	3365.32	308	309.27	2.7
3:20:36	3365.75	304	308.25	2.7
3:20:39	3363.40	304	307.76	2.8
3:20:42	3365.70	306	308.24	2.8
3:20:45	3365.64	306	307.8	2.8
3:20:48	3363.52	298	308.3	2.6
3:20:51	3358.13	296	308.04	2.6
3:20:54	3360.17	296	307.86	2.7
3:20:57	3358.97	296	307.9	2.6
3:21:00	3363.44	296	308.72	2.6
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3:21:06	3354.82	280	310.44	2.7
3:21:09	3353.40	272	310.24	2.7
3:21:12	3360.86	268	309.77	2.7
3:21:15	3356.06	260	309.19	2.7
3:21:18	3355.82	256	308.69	2.7
3:21:21	3357.00	256	307.96	2.7
3:21:24	3356.59	256	308.12	2.7
3:21:27	3357.67	256	309.25	2.7
3:21:30	3355.99	248	310.26	2.7
3:21:33	3357.48	242	310.71	2.7
3:21:36	3353.83	240	309.08	2.7
3:21:39	3353.05	236	308.6	2.7
3:21:42	3353.91	236	308.23	2.6
3:21:45	3353.41	236	308.38	2.7
3:21:48	3353.48	232	308.85	2.7
3:21:51	3354.53	230	309.35	2.7
3:21:54	3351.65	224	309.78	2.7
3:21:57	3349.77	220	310.04	2.7
3:22:00	3348.53	214	310.12	2.7
3:22:03	3346.58	208	310.48	2.5
3:22:06	3346.38	206	310.33	2.6
3:22:09	3352.10	206	310.36	2.5
3:22:12	3345.87	200	310.75	2.5
3:22:15	3345.84	198	312.07	2.4
3:22:18	3346.13	192	312.27	2.3

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3:22:24	3354.00	174	299.03	2.3
3:22:27	3354.00	134	300.59	2.3
3:22:30	3354.00	134	305.73	2.4
3:22:33	3354.00	130	305.52	2.4
3:22:36	3354.00	122	306.71	2.4
3:22:39	3346.76	122	307.08	2.4
3:22:42	3352.82	122	309.19	2.3
3:22:45	3358.26	120	309.63	2.3
3:22:48	3364.43	122	310.65	2.3
3:22:51	3357.94	122	310.28	2.3
3:22:54	3360.49	120	309.33	2.2
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3:23:03	3359.71	113	306.8	2.3
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3:23:12	3355.07	109	306.19	2.1
3:23:15	3357.02	109	306.67	2.3
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3:23:21	3359.58	109	306.34	2.4
3:23:24	3359.50	109	305.96	2.4
3:23:27	3361.29	109	306.43	2.4
3:23:30	3362.14	109	306.62	2.4
3:23:33	3361.04	109	306.51	2.3
3:23:36	3362.78	109	306.66	2.3
3:23:39	3364.98	109	307.21	2.3
3:23:42	3364.81	109	307.64	2.2
3:23:45	3367.37	109	306.86	2.2
3:23:48	3367.69	109	306.36	2.2
3:23:51	3363.39	107	306.21	2.1
3:23:54	3359.03	105	306.51	2
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3:24:00	3362.77	109	307.29	1.8
3:24:03	3360.58	109	307.02	1.8
3:24:06	3367.28	111	306.24	1.7
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3:24:12	3358.97	113	305.26	1.9
3:24:15	3353.36	113	305.32	2.1
3:24:18	3353.79	115	305.47	2.4
3:24:21	3355.34	117	306.15	2.6
3:24:24	3359.86	121	306.95	2.6
3:24:27	3361.63	121	307.3	2.6
3:24:30	3361.63	121	307.39	2.6
3:24:33	3361.66	121	306.5	2.8
3:24:36	3360.39	121	306.46	2.7
3:24:39	3356.38	121	305.66	2.6
3:24:42	3357.47	121	306.37	2.4
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3:24:48	3354.80	117	308.61	2.7
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3:24:57	3358.05	93	310.33	2.2
3:25:00	3364.22	87	306	2.2
3:25:03	3369.55	65	306	2.4
3:25:06	3375.00	0	306	2.6
3:25:09	3375.00	0	306	2.6
3:25:12	3375.00	0	306	2.5
3:25:15	3375.00	0	306	2.5
3:25:18	3375.00	0	306	2.5
3:25:21	3375.00	0	306	2.6
3:25:24	3375.00	0	306	2.5
3:25:27	3375.00	0	306	2.5
3:25:30	3375.00	0	306	0.1
3:25:33	3375.00	0	306	0.1
3:25:36	3375.00	0	306	0.1
3:25:39	3375.00	0	306	0.1
3:25:42	3375.00	0	306	0.1
3:25:45	3375.00	0	306	0.1
3:25:48	3375.00	0	306	0.1
3:25:51	3375.00	0	306	0.1
3:25:54	3375.00	0	306	0.1
3:25:57	3375.00	0	306	0.1
3:26:00	3375.00	0	306	0.1
3:26:03	3375.00	0	306	0.1
3:26:06	3375.00	0	306	0.1
3:26:09	3375.00	0	306	0.1
3:26:12	3375.00	0	306	0
3:26:15	3375.00	0	306	0.1

3:26:18	3375.00	0	306	0.1
3:26:21	3375.00	0	306	0.1
3:26:24	3375.00	0	306	0.1
3:26:27	3375.00	0	306	0
3:26:30	3375.00	0	306	0
3:26:33	3375.00	0	306	0.1
3:26:36	3375.00	0	306	0.1
3:26:39	3375.00	0	306	0
3:26:42	3375.00	0	306	0.1
3:26:45	3375.00	0	306	0.1
3:26:48	3375.00	0	306	0.1
3:26:51	3375.00	0	306	0.1
3:26:54	3375.00	0	306	0.1
3:26:57	3375.00	0	306	0.1
3:27:00	3375.00	0	306	0.1
3:27:03	3375.00	0	306	0.1
3:27:06	3375.00	0	306	0.1
3:27:09	3375.00	0	306	0.1
3:27:12	3375.00	0	306	0.1
3:27:15	3375.00	0	306	0.1
3:27:18	3375.00	0	306	0.1
3:27:21	3375.00	0	306	0.1
3:27:24	3375.00	0	306	0.1
3:27:27	3375.00	0	306	0.1
3:27:30	3375.00	0	306	0
3:27:33	3375.00	0	306	0.1
3:27:36	3375.00	0	306	0
3:27:39	3375.00	0	306	0.1
3:27:42	3375.00	0	306	0.1
3:27:45	3375.00	0	306	0.1
3:27:48	3375.00	0	306	0.1
3:27:51	3375.00	0	306	0.1
3:27:54	3375.00	0	306	0.1
3:27:57	3375.00	0	306	0.1
3:28:00	3375.00	0	306	0.1
3:28:03	3375.00	0	306	0.1
3:28:06	3375.00	0	306	0
3:28:09	3375.00	0	306	0.1
3:28:12	3375.00	0	306	0.1
3:28:15	3375.00	0	306	0.1
3:28:18	3375.00	0	306	0.1
3:28:21	3375.00	0	306	0.1
3:28:24	3375.00	0	306	0.1
3:28:27	3375.00	0	306	0.1
3:28:30	3375.00	0	306	0.1
3:28:33	3375.00	0	306	0.1
3:28:36	3375.00	0	306	0.1
3:28:39	3375.00	0	306	0.1
3:28:42	3375.00	0	306	0.1
3:28:45	3375.00	0	306	0.1
3:28:48	3375.00	0	306	0.1
3:28:51	3375.00	0	306	0.1
3:28:54	3375.00	0	306	0.1
3:28:57	3375.00	0	306	0.1
3:29:00	3375.00	0	306	0
3:29:03	3375.00	0	306	0.1
3:29:06	3375.00	0	306	0.1
3:29:09	3375.00	0	306	0.1
3:29:12	3375.00	0	306	0.1
3:29:15	3375.00	0	306	0.1
3:29:18	3375.00	0	306	0.1
3:29:21	3375.00	0	306	0
3:29:24	3375.00	0	306	0.1
3:29:27	3375.00	0	306	0.1
3:29:30	3375.00	0	306	0.1
3:29:33	3375.00	0	306	0
3:29:36	3375.00	0	306	0.1
3:29:39	3375.00	0	306	0.1
3:29:42	3375.00	0	306	0.1
3:29:45	3375.00	0	306	0.1
3:29:48	3375.00	0	306	0.1
3:29:51	3375.00	0	306	0
3:29:54	3375.00	0	306	0.1
3:29:57	3375.00	0	306	0.1
3:30:00	3375.00	0	306	0.1

地震発生時想定

シミュレーションケース：苦東厚真2台トリップ+ 1台遅れトリップ (N-2 + N-1)
風力等の周波数リレーによるトリップ
送電線事故 (N-4) による道東水カトリップ

UFR拡大
京極1台 緊急起動

地震発生後に脱落した苦東厚真2、4号機及びその他発電事業者の出力変化は次のような設定としている。

苦東厚真2号機	脱落時刻	3:08:21
	出力計	556MW→0MW
苦東厚真4号機	脱落時刻	3:08:23.6
	出力計	598MW→0MW
その他発電事業者	脱落時刻	3:08:24
	出力計	344MW→110MW

緊急起動させる京極発電所1台の出力変化は次のように設定している。

京極発電所1台	起動時刻	3:11:24	出力最大時刻	3:12:24
	出力計	0MW	出力計	200MW

それ以外の入力データについては以下の通りとしている。

※1 シミュレーションにより再現を行うために、入力した負荷の値(ただし、入力用のため負荷遮断は反映していない)

※2 ガバナフリー機を除く

time(s)	需要※1(MW)	苦東厚真1号機出力(MW)	水力出力計※2(MW)	主な風力(MW)
3:00:00	3039.53	330	728.33	162
3:00:03	3048.28	331	728.38	160.9
3:00:06	3049.30	330	728.15	159.8
3:00:09	3044.27	330	727.92	159.4
3:00:12	3049.06	330	728.36	158.8
3:00:15	3050.08	330	727.69	159.7
3:00:18	3043.41	330	727.72	159.4
3:00:21	3028.90	330	728.31	158.7
3:00:24	3036.54	330	728.5	162.9
3:00:27	3035.31	330	727.97	163
3:00:30	3034.20	330	728.31	163.5
3:00:33	3031.97	330	728.38	163.7
3:00:36	3033.42	330	728.72	165.1
3:00:39	3042.55	330	727.96	165.1
3:00:42	3036.24	331	727.3	163.5
3:00:45	3031.69	331	727.34	163.6
3:00:48	3030.01	331	727.62	163.9
3:00:51	3032.58	331	726.68	163.6
3:00:54	3040.97	331	725.92	162.6
3:00:57	3039.19	331	726.7	162.7
3:01:00	3038.16	332	725.61	163.1
3:01:03	3038.40	332	726	162.6
3:01:06	3035.72	332	725.07	161.6
3:01:09	3043.24	332	724.79	162
3:01:12	3044.20	333	724.55	163.3
3:01:15	3049.72	334	724.97	163.4
3:01:18	3047.10	334	724.85	161
3:01:21	3044.89	334	722.63	161
3:01:24	3046.70	334	724.79	158.6
3:01:27	3051.53	334	723.32	158.5
3:01:30	3042.71	334	722.15	159.7
3:01:33	3053.03	334	724.32	160.4
3:01:36	3055.66	334	723.16	159.9
3:01:39	3042.20	334	723.8	160.5
3:01:42	3044.10	335	722.8	163.2
3:01:45	3045.02	334	723.36	162.4
3:01:48	3051.19	334	724.48	162.9
3:01:51	3057.38	334	723.97	164.3
3:01:54	3042.75	334	724.04	162
3:01:57	3050.25	335	724.54	162.3
3:02:00	3039.48	334	724.12	162.7
3:02:03	3037.27	334	724.06	163.1
3:02:06	3036.31	334	724.5	162.7
3:02:09	3040.68	335	724.82	161.9
3:02:12	3043.74	335	725.08	163
3:02:15	3042.53	335	724.42	162
3:02:18	3044.92	334	724.01	161.3
3:02:21	3049.60	335	725.04	160.5
3:02:24	3051.56	334	724.35	160.3
3:02:27	3048.71	334	724.85	160.5
3:02:30	3052.74	334	724.78	159.1
3:02:33	3049.06	334	724.86	158.9

3:02:36	3051.21	334	723.8	159.5
3:02:39	3053.87	334	724.06	159.1
3:02:42	3054.31	333	723.66	158.5
3:02:45	3056.90	333	723.75	159.5
3:02:48	3059.50	334	723.45	161.1
3:02:51	3053.05	333	723.4	160.6
3:02:54	3055.99	333	723.94	159.8
3:02:57	3058.25	334	724.46	159.9
3:03:00	3049.55	334	724.65	159.8
3:03:03	3050.39	334	724.99	159.2
3:03:06	3054.94	336	725.39	159.5
3:03:09	3056.18	335	725.88	158.5
3:03:12	3062.62	335	726.17	160.1
3:03:15	3061.75	336	726.65	160.1
3:03:18	3058.15	335	726.5	160.9
3:03:21	3059.31	335	727.71	159.6
3:03:24	3050.44	336	726.69	157.8
3:03:27	3044.91	336	726.41	157.3
3:03:30	3046.36	337	727.52	156.8
3:03:33	3041.94	336	727.34	156.9
3:03:36	3035.24	337	727.24	158.2
3:03:39	3049.13	337	728.08	158.8
3:03:42	3052.81	337	728.51	161.8
3:03:45	3049.97	336	727.82	161.7
3:03:48	3047.60	337	727.85	160.9
3:03:51	3048.44	337	728.59	161
3:03:54	3046.99	337	727.49	161.7
3:03:57	3041.72	337	727.92	161.2
3:04:00	3051.09	337	728.99	162.6
3:04:03	3047.96	336	728.11	163.3
3:04:06	3043.30	337	728.15	160.6
3:04:09	3044.55	337	728.11	160.4
3:04:12	3046.74	338	728.49	163.9
3:04:15	3042.37	338	728.07	164
3:04:18	3040.73	338	728.58	162.6
3:04:21	3043.20	338	727.8	163.2
3:04:24	3046.42	338	728.76	161.5
3:04:27	3053.95	339	728.8	160.9
3:04:30	3051.39	338	728.24	162.3
3:04:33	3052.69	338	728.78	162.3
3:04:36	3057.99	339	729.83	162.2
3:04:39	3057.61	338	729.36	162.4
3:04:42	3054.95	339	729.35	162.7
3:04:45	3047.91	339	729.31	162.5
3:04:48	3050.26	339	729.2	163.4
3:04:51	3052.26	339	729.15	163.1
3:04:54	3053.29	340	728.63	163.7
3:04:57	3052.87	340	729.71	164.1
3:05:00	3047.23	339	729.53	164.1
3:05:03	3041.98	339	729.72	165.5
3:05:06	3057.47	339	729.11	166.3
3:05:09	3055.22	339	730.06	166
3:05:12	3046.08	339	729.22	165.8
3:05:15	3045.68	339	729.77	167.3
3:05:18	3050.80	339	730	168
3:05:21	3036.81	339	729.7	167.4
3:05:24	3039.95	339	729.94	167.9
3:05:27	3052.56	340	730.15	167.9
3:05:30	3050.37	339	728.76	167.4
3:05:33	3051.04	339	728.79	167.8
3:05:36	3044.59	338	728.44	165.1
3:05:39	3051.61	340	729.86	164.8
3:05:42	3049.86	338	729.71	165.4
3:05:45	3045.98	338	729.33	163.7
3:05:48	3046.62	339	728.87	165.6
3:05:51	3040.34	339	729.04	166.3
3:05:54	3042.92	339	729.02	167.3
3:05:57	3048.19	339	728.94	167.6
3:06:00	3050.43	338	728.88	167.5
3:06:03	3048.38	339	728.68	166.8
3:06:06	3046.16	339	728.51	165
3:06:09	3044.47	338	728.12	165.8
3:06:12	3046.00	338	728.15	168.1
3:06:15	3037.67	338	728.12	167.6
3:06:18	3037.06	339	728.36	165.7
3:06:21	3038.54	339	728.94	166.6
3:06:24	3038.86	338	728.5	168.4
3:06:27	3042.80	339	728.84	169.4
3:06:30	3044.53	338	729.13	169.6

3:06:33	3039.00	339	728.2	169.6
3:06:36	3040.60	339	729	168.8
3:06:39	3034.62	339	729.07	168.8
3:06:42	3031.91	339	728.76	168.2
3:06:45	3041.49	338	728.49	169.4
3:06:48	3044.39	339	728.39	171.6
3:06:51	3046.52	339	728.47	170.8
3:06:54	3032.24	338	727.69	169
3:06:57	3034.13	340	728.87	168.2
3:07:00	3041.97	338	727.77	166.2
3:07:03	3033.16	340	727.45	166.1
3:07:06	3051.02	339	727.56	168.2
3:07:09	3057.03	339	728.32	167.1
3:07:12	3056.44	339	727.63	166
3:07:15	3058.11	339	727.99	165.2
3:07:18	3064.86	339	727.19	163.8
3:07:21	3067.42	340	729.2	164
3:07:24	3064.38	339	727.92	164.1
3:07:27	3061.62	339	727.95	164.7
3:07:30	3075.24	340	728.48	169
3:07:33	3068.26	339	728.45	169.5
3:07:36	3065.71	340	728.05	173.5
3:07:39	3067.62	340	727.96	174.7
3:07:42	3072.72	340	728.31	173.6
3:07:45	3073.86	340	728.21	173.7
3:07:48	3065.81	339	728.06	172.3
3:07:51	3072.32	339	727.87	172.2
3:07:54	3070.64	340	727.35	170.1
3:07:57	3060.17	340	727.52	169.1
3:08:00	3063.04	340	727.34	167.8
3:08:03	3071.49	339	727.99	167.7
3:08:06	3063.36	340	727.41	168.3
3:08:09	3060.55	339	727	166.9
3:08:12	3071.05	339	727	167.3
3:08:15	3075.37	340	727.33	165.8
3:08:18	3081.34	338	728	165.4
3:08:21	3070.00	338	728	137.5
3:08:24	3070.00	336	304	122.2
3:08:27	3070.00	298	304	61.7
3:08:30	3070.00	298	304	8.8
3:08:33	3070.00	298	304	7.5
3:08:36	3070.00	314	304	1.2
3:08:39	3070.00	314	304	1.1
3:08:42	3070.00	294	304	1.1
3:08:45	3054.34	308	304	0.9
3:08:48	3071.72	312	304	1
3:08:51	3075.71	312	304	1
3:08:54	3071.47	312	304	1
3:08:57	3060.10	312	304	0.9
3:09:00	3068.59	314	304	1
3:09:03	3077.25	316	304	1
3:09:06	3079.66	316	304	1
3:09:09	3091.33	312	304	1
3:09:12	3089.56	312	304	0.9
3:09:15	3089.06	312	304.83	1
3:09:18	3096.11	312	304.43	1
3:09:21	3100.42	310	304.53	1
3:09:24	3105.55	310	304.21	1
3:09:27	3057.04	310	304.63	0.9
3:09:30	3058.36	310	304.68	1
3:09:33	3066.33	306	304.21	0.9
3:09:36	3085.68	310	304.38	1
3:09:39	3086.77	308	305.07	1
3:09:42	3093.65	308	305.28	1
3:09:45	3090.49	306	305.19	1
3:09:48	3088.80	304	305.37	1
3:09:51	3101.67	304	305.93	0.9
3:09:54	3101.75	304	306.41	1
3:09:57	3111.53	304	305.45	1
3:10:00	3131.02	304	304.81	1
3:10:03	3137.97	304	305.09	1
3:10:06	3145.51	304	305.77	1
3:10:09	3144.70	304	306.28	0.9
3:10:12	3171.26	304	305.93	1
3:10:15	3173.43	304	306.78	1
3:10:18	3188.97	304	305.91	1.1
3:10:21	3189.43	304	306.01	1
3:10:24	3194.58	304	305.92	1
3:10:27	3202.20	304	306.14	1.1

3:10:30	3209.65	304	305.71	1.1
3:10:33	3221.95	306	307.14	1
3:10:36	3238.66	306	306.47	1
3:10:39	3246.20	304	306.43	1
3:10:42	3263.38	306	306.93	1
3:10:45	3271.39	306	306.56	1
3:10:48	3283.35	310	306.99	1
3:10:51	3296.14	308	306.49	1
3:10:54	3305.00	308	306.35	1
3:10:57	3310.27	308	307.09	1
3:11:00	3316.82	308	306.85	0.9
3:11:03	3324.31	310	307.18	1
3:11:06	3333.43	312	307.26	1
3:11:09	3332.47	312	307.31	1
3:11:12	3339.18	316	307.5	1
3:11:15	3338.47	316	307.75	1
3:11:18	3340.79	316	307.11	1
3:11:21	3346.64	318	307.17	1
3:11:24	3348.05	318	307.91	1
3:11:27	3350.79	320	308.14	0.9
3:11:30	3348.99	320	307.69	1
3:11:33	3354.44	320	307.38	1
3:11:36	3354.13	320	307.07	1
3:11:39	3356.82	320	307.55	1
3:11:42	3355.73	320	307.66	1
3:11:45	3356.84	320	307.63	1
3:11:48	3358.84	320	307.28	1
3:11:51	3358.05	320	306.65	1
3:11:54	3354.74	320	307	1
3:11:57	3361.58	320	307.48	0.9
3:12:00	3357.26	320	307.6	1
3:12:03	3352.61	320	307.76	1
3:12:06	3361.12	322	307.54	1
3:12:09	3354.44	320	308.06	1
3:12:12	3360.17	322	307.52	1
3:12:15	3354.55	320	308.01	1
3:12:18	3355.72	320	307.71	1
3:12:21	3358.58	320	308.21	1
3:12:24	3358.92	322	307.91	1
3:12:27	3365.25	324	308.34	1
3:12:30	3359.94	322	308.02	1
3:12:33	3359.69	320	307.61	0.9
3:12:36	3361.16	320	307.87	1
3:12:39	3362.89	320	307.37	1
3:12:42	3363.93	320	307.48	1.1
3:12:45	3364.83	320	306.98	1
3:12:48	3360.65	320	307.09	1.1
3:12:51	3365.56	320	306.72	1.1
3:12:54	3366.91	320	306.95	1
3:12:57	3370.56	320	306.15	1
3:13:00	3368.19	320	306.68	1.1
3:13:03	3366.44	320	306.1	0.9
3:13:06	3367.41	320	306.21	1
3:13:09	3369.48	320	306.36	1
3:13:12	3371.26	320	306.17	1
3:13:15	3371.40	320	306.81	1.1
3:13:18	3371.84	320	306.77	1
3:13:21	3372.28	322	306.23	1
3:13:24	3367.16	320	305.68	1
3:13:27	3370.39	320	306.03	0.9
3:13:30	3374.19	320	306.91	1
3:13:33	3371.25	320	306.31	1
3:13:36	3374.47	320	306.51	1
3:13:39	3374.39	320	307.33	1
3:13:42	3375.13	320	306.96	1
3:13:45	3378.07	320	306.88	1
3:13:48	3374.76	320	306.83	1
3:13:51	3375.36	320	307.17	1
3:13:54	3375.03	320	307.56	1
3:13:57	3377.80	320	308.15	0.9
3:14:00	3377.96	320	307.51	1
3:14:03	3376.84	320	307.71	1
3:14:06	3381.77	320	307.91	1
3:14:09	3377.96	320	307.93	1
3:14:12	3381.58	320	307.88	1
3:14:15	3384.65	320	308.36	1
3:14:18	3384.57	320	308.14	1
3:14:21	3384.21	320	308.1	1
3:14:24	3382.74	320	307.34	1

3:14:27	3384.16	320	307.43	1
3:14:30	3383.56	320	307.06	1
3:14:33	3383.58	320	307.61	1
3:14:36	3382.45	320	307.13	1
3:14:39	3378.85	320	307.84	1
3:14:42	3380.23	320	307.31	1
3:14:45	3382.93	320	307.31	1
3:14:48	3379.62	320	307.32	1
3:14:51	3381.34	320	307.75	1
3:14:54	3382.39	322	307.81	1
3:14:57	3380.51	322	307.83	1
3:15:00	3382.78	324	307.24	1
3:15:03	3382.16	324	307.13	0.9
3:15:06	3383.84	324	307.26	1
3:15:09	3382.65	324	307.08	1
3:15:12	3382.45	324	306.88	1
3:15:15	3386.69	326	306.89	1
3:15:18	3383.48	324	307.08	1
3:15:21	3384.09	324	306.99	1.3
3:15:24	3384.28	324	306.34	1.7
3:15:27	3384.91	324	306.11	2.1
3:15:30	3385.86	324	305.72	2.8
3:15:33	3385.86	324	306.4	3.3
3:15:36	3386.75	324	305.85	3.3
3:15:39	3387.22	326	306.06	3.3
3:15:42	3394.12	328	306.48	3.9
3:15:45	3396.26	328	306.09	4.1
3:15:48	3394.48	328	307.07	4.1
3:15:51	3392.14	328	306.52	3.9
3:15:54	3394.24	328	306.37	4
3:15:57	3392.28	328	306.79	3.8
3:16:00	3394.82	328	306.66	3.5
3:16:03	3396.64	328	306.97	3.6
3:16:06	3399.38	330	306.31	3.7
3:16:09	3391.87	330	306.1	3.6
3:16:12	3390.89	332	306.11	3.6
3:16:15	3393.55	332	306.39	3.8
3:16:18	3395.00	336	306.28	3.7
3:16:21	3401.99	336	307.04	3.7
3:16:24	3403.51	338	307.37	3.7
3:16:27	3402.43	340	306.62	3.7
3:16:30	3398.97	336	307.05	3.7
3:16:33	3400.32	338	306.49	3.7
3:16:36	3401.45	340	306.75	3.8
3:16:39	3398.30	340	305.66	3.7
3:16:42	3402.18	340	306.37	3.7
3:16:45	3400.89	340	307.43	3.7
3:16:48	3401.81	340	307.27	3.8
3:16:51	3405.60	340	306.56	3.7
3:16:54	3403.31	340	306.48	3.6
3:16:57	3402.51	340	306.68	3.7
3:17:00	3403.41	340	306.64	3.7
3:17:03	3405.95	340	306.9	3.7
3:17:06	3407.41	340	306.55	3.6
3:17:09	3402.69	340	306.48	3.6
3:17:12	3407.84	340	306.75	3.6
3:17:15	3402.76	340	306.34	3.6
3:17:18	3406.45	340	306.86	3.6
3:17:21	3404.09	340	305.93	3.8
3:17:24	3405.91	340	305.82	3.8
3:17:27	3403.20	340	306.45	3.8
3:17:30	3405.25	340	306.94	3.8
3:17:33	3405.01	340	306.69	3.9
3:17:36	3404.35	340	306.25	3.9
3:17:39	3405.16	340	306.74	3.7
3:17:42	3404.58	340	306.84	3.6
3:17:45	3408.37	340	306.54	3.7
3:17:48	3403.21	340	306.59	3.6
3:17:51	3404.06	340	306.52	3.6
3:17:54	3404.60	340	306.53	3.6
3:17:57	3405.02	340	306.81	3.6
3:18:00	3401.95	340	305.73	3.5
3:18:03	3397.44	340	306.1	3.3
3:18:06	3395.97	340	306.01	3.1
3:18:09	3398.34	340	306.41	3.1
3:18:12	3399.28	340	305.49	3.2
3:18:15	3394.71	340	306.13	3.3
3:18:18	3398.58	340	305.72	3.3
3:18:21	3393.92	340	305.89	3.6

3:18:24	3387.27	338	306.19	3.6
3:18:27	3394.72	340	306.4	3.7
3:18:30	3392.14	338	306.62	3.8
3:18:33	3393.53	340	307.21	3.9
3:18:36	3392.64	340	306.62	2.9
3:18:39	3391.87	338	307.47	2.8
3:18:42	3393.19	340	307.72	2.9
3:18:45	3393.87	338	307.16	2.9
3:18:48	3394.28	338	307.79	2.9
3:18:51	3390.32	338	308.11	2.9
3:18:54	3388.62	338	307.41	3
3:18:57	3392.55	338	307.62	3
3:19:00	3393.51	338	307.2	3.1
3:19:03	3394.71	340	307.7	3.3
3:19:06	3392.81	338	307.8	3.2
3:19:09	3390.21	336	307.6	3
3:19:12	3393.91	338	307.27	2.7
3:19:15	3389.09	336	307.02	2.7
3:19:18	3385.52	336	307.34	2.8
3:19:21	3385.90	336	307.37	2.7
3:19:24	3383.07	336	307.5	2.8
3:19:27	3389.43	336	308.46	2.7
3:19:30	3387.40	336	308	2.9
3:19:33	3391.72	336	307.3	2.9
3:19:36	3389.95	334	306.92	2.7
3:19:39	3386.74	334	307.27	2.7
3:19:42	3378.55	332	307.08	2.7
3:19:45	3374.38	332	307.87	2.9
3:19:48	3377.98	332	307.54	2.9
3:19:51	3379.96	332	308.65	3
3:19:54	3382.64	328	308.26	2.9
3:19:57	3379.84	322	307.47	2.9
3:20:00	3372.44	320	306.42	2.9
3:20:03	3373.06	322	307.48	2.7
3:20:06	3375.69	324	307.46	2.7
3:20:09	3376.62	324	307.81	2.7
3:20:12	3382.50	326	308.57	2.7
3:20:15	3381.24	324	307.56	2.8
3:20:18	3381.44	324	306.91	2.8
3:20:21	3375.57	324	307.02	2.8
3:20:24	3372.19	320	306.75	2.8
3:20:27	3375.69	320	306.99	2.9
3:20:30	3372.50	318	308.65	2.8
3:20:33	3365.32	308	309.27	2.7
3:20:36	3365.75	304	308.25	2.7
3:20:39	3363.40	304	307.76	2.8
3:20:42	3365.70	306	308.24	2.8
3:20:45	3365.64	306	307.8	2.8
3:20:48	3363.52	298	308.3	2.6
3:20:51	3358.13	296	308.04	2.6
3:20:54	3360.17	296	307.86	2.7
3:20:57	3358.97	296	307.9	2.6
3:21:00	3363.44	296	308.72	2.6
3:21:03	3362.50	292	310.34	2.7
3:21:06	3354.82	280	310.44	2.7
3:21:09	3353.40	272	310.24	2.7
3:21:12	3360.86	268	309.77	2.7
3:21:15	3356.06	260	309.19	2.7
3:21:18	3355.82	256	308.69	2.7
3:21:21	3357.00	256	307.96	2.7
3:21:24	3356.59	256	308.12	2.7
3:21:27	3357.67	256	309.25	2.7
3:21:30	3355.99	248	310.26	2.7
3:21:33	3357.48	242	310.71	2.7
3:21:36	3353.83	240	309.08	2.7
3:21:39	3353.05	236	308.6	2.7
3:21:42	3353.91	236	308.23	2.6
3:21:45	3353.41	236	308.38	2.7
3:21:48	3353.48	232	308.85	2.7
3:21:51	3354.53	230	309.35	2.7
3:21:54	3351.65	224	309.78	2.7
3:21:57	3349.77	220	310.04	2.7
3:22:00	3348.53	214	310.12	2.7
3:22:03	3346.58	208	310.48	2.5
3:22:06	3346.38	206	310.33	2.6
3:22:09	3352.10	206	310.36	2.5
3:22:12	3345.87	200	310.75	2.5
3:22:15	3345.84	198	312.07	2.4
3:22:18	3346.13	192	312.27	2.3

3:22:21	3354.00	182	308.37	2.2
3:22:24	3354.00	174	299.03	2.3
3:22:27	3354.00	134	300.59	2.3
3:22:30	3354.00	134	305.73	2.4
3:22:33	3354.00	130	305.52	2.4
3:22:36	3354.00	122	306.71	2.4
3:22:39	3346.76	122	307.08	2.4
3:22:42	3352.82	122	309.19	2.3
3:22:45	3358.26	120	309.63	2.3
3:22:48	3364.43	122	310.65	2.3
3:22:51	3357.94	122	310.28	2.3
3:22:54	3360.49	120	309.33	2.2
3:22:57	3359.01	118	308.16	2.3
3:23:00	3356.25	113	307.08	2.3
3:23:03	3359.71	113	306.8	2.3
3:23:06	3356.26	111	306.51	2.2
3:23:09	3356.51	109	306.24	2.1
3:23:12	3355.07	109	306.19	2.1
3:23:15	3357.02	109	306.67	2.3
3:23:18	3359.58	109	306.42	2.3
3:23:21	3359.58	109	306.34	2.4
3:23:24	3359.50	109	305.96	2.4
3:23:27	3361.29	109	306.43	2.4
3:23:30	3362.14	109	306.62	2.4
3:23:33	3361.04	109	306.51	2.3
3:23:36	3362.78	109	306.66	2.3
3:23:39	3364.98	109	307.21	2.3
3:23:42	3364.81	109	307.64	2.2
3:23:45	3367.37	109	306.86	2.2
3:23:48	3367.69	109	306.36	2.2
3:23:51	3363.39	107	306.21	2.1
3:23:54	3359.03	105	306.51	2
3:23:57	3355.52	105	306.52	1.7
3:24:00	3362.77	109	307.29	1.8
3:24:03	3360.58	109	307.02	1.8
3:24:06	3367.28	111	306.24	1.7
3:24:09	3362.31	113	305.49	1.8
3:24:12	3358.97	113	305.26	1.9
3:24:15	3353.36	113	305.32	2.1
3:24:18	3353.79	115	305.47	2.4
3:24:21	3355.34	117	306.15	2.6
3:24:24	3359.86	121	306.95	2.6
3:24:27	3361.63	121	307.3	2.6
3:24:30	3361.63	121	307.39	2.6
3:24:33	3361.66	121	306.5	2.8
3:24:36	3360.39	121	306.46	2.7
3:24:39	3356.38	121	305.66	2.6
3:24:42	3357.47	121	306.37	2.4
3:24:45	3355.26	121	306.92	2.5
3:24:48	3354.80	117	308.61	2.7
3:24:51	3351.95	111	309.73	2.7
3:24:54	3354.56	103	310.47	2.3
3:24:57	3358.05	93	310.33	2.2
3:25:00	3364.22	87	306	2.2
3:25:03	3369.55	65	306	2.4
3:25:06	3375.00	0	306	2.6
3:25:09	3375.00	0	306	2.6
3:25:12	3375.00	0	306	2.5
3:25:15	3375.00	0	306	2.5
3:25:18	3375.00	0	306	2.5
3:25:21	3375.00	0	306	2.6
3:25:24	3375.00	0	306	2.5
3:25:27	3375.00	0	306	2.5
3:25:30	3375.00	0	306	0.1
3:25:33	3375.00	0	306	0.1
3:25:36	3375.00	0	306	0.1
3:25:39	3375.00	0	306	0.1
3:25:42	3375.00	0	306	0.1
3:25:45	3375.00	0	306	0.1
3:25:48	3375.00	0	306	0.1
3:25:51	3375.00	0	306	0.1
3:25:54	3375.00	0	306	0.1
3:25:57	3375.00	0	306	0.1
3:26:00	3375.00	0	306	0.1
3:26:03	3375.00	0	306	0.1
3:26:06	3375.00	0	306	0.1
3:26:09	3375.00	0	306	0.1
3:26:12	3375.00	0	306	0
3:26:15	3375.00	0	306	0.1

3:26:18	3375.00	0	306	0.1
3:26:21	3375.00	0	306	0.1
3:26:24	3375.00	0	306	0.1
3:26:27	3375.00	0	306	0
3:26:30	3375.00	0	306	0
3:26:33	3375.00	0	306	0.1
3:26:36	3375.00	0	306	0.1
3:26:39	3375.00	0	306	0
3:26:42	3375.00	0	306	0.1
3:26:45	3375.00	0	306	0.1
3:26:48	3375.00	0	306	0.1
3:26:51	3375.00	0	306	0.1
3:26:54	3375.00	0	306	0.1
3:26:57	3375.00	0	306	0.1
3:27:00	3375.00	0	306	0.1
3:27:03	3375.00	0	306	0.1
3:27:06	3375.00	0	306	0.1
3:27:09	3375.00	0	306	0.1
3:27:12	3375.00	0	306	0.1
3:27:15	3375.00	0	306	0.1
3:27:18	3375.00	0	306	0.1
3:27:21	3375.00	0	306	0.1
3:27:24	3375.00	0	306	0.1
3:27:27	3375.00	0	306	0.1
3:27:30	3375.00	0	306	0
3:27:33	3375.00	0	306	0.1
3:27:36	3375.00	0	306	0
3:27:39	3375.00	0	306	0.1
3:27:42	3375.00	0	306	0.1
3:27:45	3375.00	0	306	0.1
3:27:48	3375.00	0	306	0.1
3:27:51	3375.00	0	306	0.1
3:27:54	3375.00	0	306	0.1
3:27:57	3375.00	0	306	0.1
3:28:00	3375.00	0	306	0.1
3:28:03	3375.00	0	306	0.1
3:28:06	3375.00	0	306	0
3:28:09	3375.00	0	306	0.1
3:28:12	3375.00	0	306	0.1
3:28:15	3375.00	0	306	0.1
3:28:18	3375.00	0	306	0.1
3:28:21	3375.00	0	306	0.1
3:28:24	3375.00	0	306	0.1
3:28:27	3375.00	0	306	0.1
3:28:30	3375.00	0	306	0.1
3:28:33	3375.00	0	306	0.1
3:28:36	3375.00	0	306	0.1
3:28:39	3375.00	0	306	0.1
3:28:42	3375.00	0	306	0.1
3:28:45	3375.00	0	306	0.1
3:28:48	3375.00	0	306	0.1
3:28:51	3375.00	0	306	0.1
3:28:54	3375.00	0	306	0.1
3:28:57	3375.00	0	306	0.1
3:29:00	3375.00	0	306	0
3:29:03	3375.00	0	306	0.1
3:29:06	3375.00	0	306	0.1
3:29:09	3375.00	0	306	0.1
3:29:12	3375.00	0	306	0.1
3:29:15	3375.00	0	306	0.1
3:29:18	3375.00	0	306	0.1
3:29:21	3375.00	0	306	0
3:29:24	3375.00	0	306	0.1
3:29:27	3375.00	0	306	0.1
3:29:30	3375.00	0	306	0.1
3:29:33	3375.00	0	306	0
3:29:36	3375.00	0	306	0.1
3:29:39	3375.00	0	306	0.1
3:29:42	3375.00	0	306	0.1
3:29:45	3375.00	0	306	0.1
3:29:48	3375.00	0	306	0.1
3:29:51	3375.00	0	306	0
3:29:54	3375.00	0	306	0.1
3:29:57	3375.00	0	306	0.1
3:30:00	3375.00	0	306	0.1

地震発生時想定

シミュレーションケース：苦東厚真3台同時トリップ（N-3）
 UFR量確認用
 風力等の周波数リレーによるトリップ
 送電線事故（N-4）による道東水カトリップ

UFR拡大
 京極2台 緊急起動

地震発生後に脱落した苦東厚真2、4号機及びその他発電事業者の出力変化は次のような設定としている。

苦東厚真2、4号機	脱落時刻	3:08:21
	出力計	1154MW→0MW
その他発電事業者	脱落時刻	3:08:24
	出力計	344MW→110MW

緊急起動させる京極発電所2台の出力変化は次のように設定している。

京極発電所2台	起動時刻	3:11:24	出力最大時刻	3:12:24
	出力計	0MW	→ 出力計	400MW

それ以外の入力データについては以下の通りとしている。

※1 シミュレーションにより再現を行うために、入力した負荷の値（ただし、入力用のため負荷遮断は反映していない）

※2 苦東厚真1号機は3:08:21に脱落を設定

※3 ガバナフリー機を除く

time(s)	需要 ^{※1} (MW)	苦東厚真1号機出力 ^{※2} (MW)	水力出力計 ^{※3} (MW)	主な風力(MW)
3:00:00	3039.53	330	728.33	162
3:00:03	3048.28	331	728.38	160.9
3:00:06	3049.30	330	728.15	159.8
3:00:09	3044.27	330	727.92	159.4
3:00:12	3049.06	330	728.36	158.8
3:00:15	3050.08	330	727.69	159.7
3:00:18	3043.41	330	727.72	159.4
3:00:21	3028.90	330	728.31	158.7
3:00:24	3036.54	330	728.5	162.9
3:00:27	3035.31	330	727.97	163
3:00:30	3034.20	330	728.31	163.5
3:00:33	3031.97	330	728.38	163.7
3:00:36	3033.42	330	728.72	165.1
3:00:39	3042.55	330	727.96	165.1
3:00:42	3036.24	331	727.3	163.5
3:00:45	3031.69	331	727.34	163.6
3:00:48	3030.01	331	727.62	163.9
3:00:51	3032.58	331	726.68	163.6
3:00:54	3040.97	331	725.92	162.6
3:00:57	3039.19	331	726.7	162.7
3:01:00	3038.16	332	725.61	163.1
3:01:03	3038.40	332	726	162.6
3:01:06	3035.72	332	725.07	161.6
3:01:09	3043.24	332	724.79	162
3:01:12	3044.20	333	724.55	163.3
3:01:15	3049.72	334	724.97	163.4
3:01:18	3047.10	334	724.85	161
3:01:21	3044.89	334	722.63	161
3:01:24	3046.70	334	724.79	158.6
3:01:27	3051.53	334	723.32	158.5
3:01:30	3042.71	334	722.15	159.7
3:01:33	3053.03	334	724.32	160.4
3:01:36	3055.66	334	723.16	159.9
3:01:39	3042.20	334	723.8	160.5
3:01:42	3044.10	335	722.8	163.2
3:01:45	3045.02	334	723.36	162.4
3:01:48	3051.19	334	724.48	162.9
3:01:51	3057.38	334	723.97	164.3
3:01:54	3042.75	334	724.04	162
3:01:57	3050.25	335	724.54	162.3
3:02:00	3039.48	334	724.12	162.7
3:02:03	3037.27	334	724.06	163.1
3:02:06	3036.31	334	724.5	162.7
3:02:09	3040.68	335	724.82	161.9
3:02:12	3043.74	335	725.08	163
3:02:15	3042.53	335	724.42	162
3:02:18	3044.92	334	724.01	161.3
3:02:21	3049.60	335	725.04	160.5
3:02:24	3051.56	334	724.35	160.3
3:02:27	3048.71	334	724.85	160.5
3:02:30	3052.74	334	724.78	159.1
3:02:33	3049.06	334	724.86	158.9
3:02:36	3051.21	334	723.8	159.5
3:02:39	3053.87	334	724.06	159.1

3:02:42	3054.31	333	723.66	158.5
3:02:45	3056.90	333	723.75	159.5
3:02:48	3059.50	334	723.45	161.1
3:02:51	3053.05	333	723.4	160.6
3:02:54	3055.99	333	723.94	159.8
3:02:57	3058.25	334	724.46	159.9
3:03:00	3049.55	334	724.65	159.8
3:03:03	3050.39	334	724.99	159.2
3:03:06	3054.94	336	725.39	159.5
3:03:09	3056.18	335	725.88	158.5
3:03:12	3062.62	335	726.17	160.1
3:03:15	3061.75	336	726.65	160.1
3:03:18	3058.15	335	726.5	160.9
3:03:21	3059.31	335	727.71	159.6
3:03:24	3050.44	336	726.69	157.8
3:03:27	3044.91	336	726.41	157.3
3:03:30	3046.36	337	727.52	156.8
3:03:33	3041.94	336	727.34	156.9
3:03:36	3035.24	337	727.24	158.2
3:03:39	3049.13	337	728.08	158.8
3:03:42	3052.81	337	728.51	161.8
3:03:45	3049.97	336	727.82	161.7
3:03:48	3047.60	337	727.85	160.9
3:03:51	3048.44	337	728.59	161
3:03:54	3046.99	337	727.49	161.7
3:03:57	3041.72	337	727.92	161.2
3:04:00	3051.09	337	728.99	162.6
3:04:03	3047.96	336	728.11	163.3
3:04:06	3043.30	337	728.15	160.6
3:04:09	3044.55	337	728.11	160.4
3:04:12	3046.74	338	728.49	163.9
3:04:15	3042.37	338	728.07	164
3:04:18	3040.73	338	728.58	162.6
3:04:21	3043.20	338	727.8	163.2
3:04:24	3046.42	338	728.76	161.5
3:04:27	3053.95	339	728.8	160.9
3:04:30	3051.39	338	728.24	162.3
3:04:33	3052.69	338	728.78	162.3
3:04:36	3057.99	339	729.83	162.2
3:04:39	3057.61	338	729.36	162.4
3:04:42	3054.95	339	729.35	162.7
3:04:45	3047.91	339	729.31	162.5
3:04:48	3050.26	339	729.2	163.4
3:04:51	3052.26	339	729.15	163.1
3:04:54	3053.29	340	728.63	163.7
3:04:57	3052.87	340	729.71	164.1
3:05:00	3047.23	339	729.53	164.1
3:05:03	3041.98	339	729.72	165.5
3:05:06	3057.47	339	729.11	166.3
3:05:09	3055.22	339	730.06	166
3:05:12	3046.08	339	729.22	165.8
3:05:15	3045.68	339	729.77	167.3
3:05:18	3050.80	339	730	168
3:05:21	3036.81	339	729.7	167.4
3:05:24	3039.95	339	729.94	167.9
3:05:27	3052.56	340	730.15	167.9
3:05:30	3050.37	339	728.76	167.4
3:05:33	3051.04	339	728.79	167.8
3:05:36	3044.59	338	728.44	165.1
3:05:39	3051.61	340	729.86	164.8
3:05:42	3049.86	338	729.71	165.4
3:05:45	3045.98	338	729.33	163.7
3:05:48	3046.62	339	728.87	165.6
3:05:51	3040.34	339	729.04	166.3
3:05:54	3042.92	339	729.02	167.3
3:05:57	3048.19	339	728.94	167.6
3:06:00	3050.43	338	728.88	167.5
3:06:03	3048.38	339	728.68	166.8
3:06:06	3046.16	339	728.51	165
3:06:09	3044.47	338	728.12	165.8
3:06:12	3046.00	338	728.15	168.1
3:06:15	3037.67	338	728.12	167.6
3:06:18	3037.06	339	728.36	165.7
3:06:21	3038.54	339	728.94	166.6
3:06:24	3038.86	338	728.5	168.4
3:06:27	3042.80	339	728.84	169.4
3:06:30	3044.53	338	729.13	169.6
3:06:33	3039.00	339	728.2	169.6
3:06:36	3040.60	339	729	168.8

3:06:39	3034.62	339	729.07	168.8
3:06:42	3031.91	339	728.76	168.2
3:06:45	3041.49	338	728.49	169.4
3:06:48	3044.39	339	728.39	171.6
3:06:51	3046.52	339	728.47	170.8
3:06:54	3032.24	338	727.69	169
3:06:57	3034.13	340	728.87	168.2
3:07:00	3041.97	338	727.77	166.2
3:07:03	3033.16	340	727.45	166.1
3:07:06	3051.02	339	727.56	168.2
3:07:09	3057.03	339	728.32	167.1
3:07:12	3056.44	339	727.63	166
3:07:15	3058.11	339	727.99	165.2
3:07:18	3064.86	339	727.19	163.8
3:07:21	3067.42	340	729.2	164
3:07:24	3064.38	339	727.92	164.1
3:07:27	3061.62	339	727.95	164.7
3:07:30	3075.24	340	728.48	169
3:07:33	3068.26	339	728.45	169.5
3:07:36	3065.71	340	728.05	173.5
3:07:39	3067.62	340	727.96	174.7
3:07:42	3072.72	340	728.31	173.6
3:07:45	3073.86	340	728.21	173.7
3:07:48	3065.81	339	728.06	172.3
3:07:51	3072.32	339	727.87	172.2
3:07:54	3070.64	340	727.35	170.1
3:07:57	3060.17	340	727.52	169.1
3:08:00	3063.04	340	727.34	167.8
3:08:03	3071.49	339	727.99	167.7
3:08:06	3063.36	340	727.41	168.3
3:08:09	3060.55	339	727	166.9
3:08:12	3071.05	339	727	167.3
3:08:15	3075.37	340	727.33	165.8
3:08:18	3081.34	338	728	165.4
3:08:21	3070.00	338	728	137.5
3:08:24	3070.00	336	304	122.2
3:08:27	3070.00	298	304	61.7
3:08:30	3070.00	298	304	8.8
3:08:33	3070.00	298	304	7.5
3:08:36	3070.00	314	304	1.2
3:08:39	3070.00	314	304	1.1
3:08:42	3070.00	294	304	1.1
3:08:45	3054.34	308	304	0.9
3:08:48	3071.72	312	304	1
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3:08:54	3071.47	312	304	1
3:08:57	3060.10	312	304	0.9
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3:09:03	3077.25	316	304	1
3:09:06	3079.66	316	304	1
3:09:09	3091.33	312	304	1
3:09:12	3089.56	312	304	0.9
3:09:15	3089.06	312	304.83	1
3:09:18	3096.11	312	304.43	1
3:09:21	3100.42	310	304.53	1
3:09:24	3105.55	310	304.21	1
3:09:27	3057.04	310	304.63	0.9
3:09:30	3058.36	310	304.68	1
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3:09:36	3085.68	310	304.38	1
3:09:39	3086.77	308	305.07	1
3:09:42	3093.65	308	305.28	1
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3:10:00	3131.02	304	304.81	1
3:10:03	3137.97	304	305.09	1
3:10:06	3145.51	304	305.77	1
3:10:09	3144.70	304	306.28	0.9
3:10:12	3171.26	304	305.93	1
3:10:15	3173.43	304	306.78	1
3:10:18	3188.97	304	305.91	1.1
3:10:21	3189.43	304	306.01	1
3:10:24	3194.58	304	305.92	1
3:10:27	3202.20	304	306.14	1.1
3:10:30	3209.65	304	305.71	1.1
3:10:33	3221.95	306	307.14	1

3:10:36	3238.66	306	306.47	1
3:10:39	3246.20	304	306.43	1
3:10:42	3263.38	306	306.93	1
3:10:45	3271.39	306	306.56	1
3:10:48	3283.35	310	306.99	1
3:10:51	3296.14	308	306.49	1
3:10:54	3305.00	308	306.35	1
3:10:57	3310.27	308	307.09	1
3:11:00	3316.82	308	306.85	0.9
3:11:03	3324.31	310	307.18	1
3:11:06	3333.43	312	307.26	1
3:11:09	3332.47	312	307.31	1
3:11:12	3339.18	316	307.5	1
3:11:15	3338.47	316	307.75	1
3:11:18	3340.79	316	307.11	1
3:11:21	3346.64	318	307.17	1
3:11:24	3348.05	318	307.91	1
3:11:27	3350.79	320	308.14	0.9
3:11:30	3348.99	320	307.69	1
3:11:33	3354.44	320	307.38	1
3:11:36	3354.13	320	307.07	1
3:11:39	3356.82	320	307.55	1
3:11:42	3355.73	320	307.66	1
3:11:45	3356.84	320	307.63	1
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3:11:51	3358.05	320	306.65	1
3:11:54	3354.74	320	307	1
3:11:57	3361.58	320	307.48	0.9
3:12:00	3357.26	320	307.6	1
3:12:03	3352.61	320	307.76	1
3:12:06	3361.12	322	307.54	1
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3:12:12	3360.17	322	307.52	1
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3:12:21	3358.58	320	308.21	1
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3:12:27	3365.25	324	308.34	1
3:12:30	3359.94	322	308.02	1
3:12:33	3359.69	320	307.61	0.9
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3:12:39	3362.89	320	307.37	1
3:12:42	3363.93	320	307.48	1.1
3:12:45	3364.83	320	306.98	1
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3:12:54	3366.91	320	306.95	1
3:12:57	3370.56	320	306.15	1
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3:13:06	3367.41	320	306.21	1
3:13:09	3369.48	320	306.36	1
3:13:12	3371.26	320	306.17	1
3:13:15	3371.40	320	306.81	1.1
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3:13:21	3372.28	322	306.23	1
3:13:24	3367.16	320	305.68	1
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3:13:30	3374.19	320	306.91	1
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3:13:36	3374.47	320	306.51	1
3:13:39	3374.39	320	307.33	1
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3:13:51	3375.36	320	307.17	1
3:13:54	3375.03	320	307.56	1
3:13:57	3377.80	320	308.15	0.9
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3:15:51	3392.14	328	306.52	3.9
3:15:54	3394.24	328	306.37	4
3:15:57	3392.28	328	306.79	3.8
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3:19:06	3392.81	338	307.8	3.2
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3:19:12	3393.91	338	307.27	2.7
3:19:15	3389.09	336	307.02	2.7
3:19:18	3385.52	336	307.34	2.8
3:19:21	3385.90	336	307.37	2.7
3:19:24	3383.07	336	307.5	2.8
3:19:27	3389.43	336	308.46	2.7
3:19:30	3387.40	336	308	2.9
3:19:33	3391.72	336	307.3	2.9
3:19:36	3389.95	334	306.92	2.7
3:19:39	3386.74	334	307.27	2.7
3:19:42	3378.55	332	307.08	2.7
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3:20:06	3375.69	324	307.46	2.7
3:20:09	3376.62	324	307.81	2.7
3:20:12	3382.50	326	308.57	2.7
3:20:15	3381.24	324	307.56	2.8
3:20:18	3381.44	324	306.91	2.8
3:20:21	3375.57	324	307.02	2.8
3:20:24	3372.19	320	306.75	2.8
3:20:27	3375.69	320	306.99	2.9
3:20:30	3372.50	318	308.65	2.8
3:20:33	3365.32	308	309.27	2.7
3:20:36	3365.75	304	308.25	2.7
3:20:39	3363.40	304	307.76	2.8
3:20:42	3365.70	306	308.24	2.8
3:20:45	3365.64	306	307.8	2.8
3:20:48	3363.52	298	308.3	2.6
3:20:51	3358.13	296	308.04	2.6
3:20:54	3360.17	296	307.86	2.7
3:20:57	3358.97	296	307.9	2.6
3:21:00	3363.44	296	308.72	2.6
3:21:03	3362.50	292	310.34	2.7
3:21:06	3354.82	280	310.44	2.7
3:21:09	3353.40	272	310.24	2.7
3:21:12	3360.86	268	309.77	2.7
3:21:15	3356.06	260	309.19	2.7
3:21:18	3355.82	256	308.69	2.7
3:21:21	3357.00	256	307.96	2.7
3:21:24	3356.59	256	308.12	2.7
3:21:27	3357.67	256	309.25	2.7
3:21:30	3355.99	248	310.26	2.7
3:21:33	3357.48	242	310.71	2.7
3:21:36	3353.83	240	309.08	2.7
3:21:39	3353.05	236	308.6	2.7
3:21:42	3353.91	236	308.23	2.6
3:21:45	3353.41	236	308.38	2.7
3:21:48	3353.48	232	308.85	2.7
3:21:51	3354.53	230	309.35	2.7
3:21:54	3351.65	224	309.78	2.7
3:21:57	3349.77	220	310.04	2.7
3:22:00	3348.53	214	310.12	2.7
3:22:03	3346.58	208	310.48	2.5
3:22:06	3346.38	206	310.33	2.6
3:22:09	3352.10	206	310.36	2.5
3:22:12	3345.87	200	310.75	2.5
3:22:15	3345.84	198	312.07	2.4
3:22:18	3346.13	192	312.27	2.3
3:22:21	3354.00	182	308.37	2.2
3:22:24	3354.00	174	299.03	2.3

3:22:27	3354.00	134	300.59	2.3
3:22:30	3354.00	134	305.73	2.4
3:22:33	3354.00	130	305.52	2.4
3:22:36	3354.00	122	306.71	2.4
3:22:39	3346.76	122	307.08	2.4
3:22:42	3352.82	122	309.19	2.3
3:22:45	3358.26	120	309.63	2.3
3:22:48	3364.43	122	310.65	2.3
3:22:51	3357.94	122	310.28	2.3
3:22:54	3360.49	120	309.33	2.2
3:22:57	3359.01	118	308.16	2.3
3:23:00	3356.25	113	307.08	2.3
3:23:03	3359.71	113	306.8	2.3
3:23:06	3356.26	111	306.51	2.2
3:23:09	3356.51	109	306.24	2.1
3:23:12	3355.07	109	306.19	2.1
3:23:15	3357.02	109	306.67	2.3
3:23:18	3359.58	109	306.42	2.3
3:23:21	3359.58	109	306.34	2.4
3:23:24	3359.50	109	305.96	2.4
3:23:27	3361.29	109	306.43	2.4
3:23:30	3362.14	109	306.62	2.4
3:23:33	3361.04	109	306.51	2.3
3:23:36	3362.78	109	306.66	2.3
3:23:39	3364.98	109	307.21	2.3
3:23:42	3364.81	109	307.64	2.2
3:23:45	3367.37	109	306.86	2.2
3:23:48	3367.69	109	306.36	2.2
3:23:51	3363.39	107	306.21	2.1
3:23:54	3359.03	105	306.51	2
3:23:57	3355.52	105	306.52	1.7
3:24:00	3362.77	109	307.29	1.8
3:24:03	3360.58	109	307.02	1.8
3:24:06	3367.28	111	306.24	1.7
3:24:09	3362.31	113	305.49	1.8
3:24:12	3358.97	113	305.26	1.9
3:24:15	3353.36	113	305.32	2.1
3:24:18	3353.79	115	305.47	2.4
3:24:21	3355.34	117	306.15	2.6
3:24:24	3359.86	121	306.95	2.6
3:24:27	3361.63	121	307.3	2.6
3:24:30	3361.63	121	307.39	2.6
3:24:33	3361.66	121	306.5	2.8
3:24:36	3360.39	121	306.46	2.7
3:24:39	3356.38	121	305.66	2.6
3:24:42	3357.47	121	306.37	2.4
3:24:45	3355.26	121	306.92	2.5
3:24:48	3354.80	117	308.61	2.7
3:24:51	3351.95	111	309.73	2.7
3:24:54	3354.56	103	310.47	2.3
3:24:57	3358.05	93	310.33	2.2
3:25:00	3364.22	87	306	2.2
3:25:03	3369.55	65	306	2.4
3:25:06	3375.00	0	306	2.6
3:25:09	3375.00	0	306	2.6
3:25:12	3375.00	0	306	2.5
3:25:15	3375.00	0	306	2.5
3:25:18	3375.00	0	306	2.5
3:25:21	3375.00	0	306	2.6
3:25:24	3375.00	0	306	2.5
3:25:27	3375.00	0	306	2.5
3:25:30	3375.00	0	306	0.1
3:25:33	3375.00	0	306	0.1
3:25:36	3375.00	0	306	0.1
3:25:39	3375.00	0	306	0.1
3:25:42	3375.00	0	306	0.1
3:25:45	3375.00	0	306	0.1
3:25:48	3375.00	0	306	0.1
3:25:51	3375.00	0	306	0.1
3:25:54	3375.00	0	306	0.1
3:25:57	3375.00	0	306	0.1
3:26:00	3375.00	0	306	0.1
3:26:03	3375.00	0	306	0.1
3:26:06	3375.00	0	306	0.1
3:26:09	3375.00	0	306	0.1
3:26:12	3375.00	0	306	0
3:26:15	3375.00	0	306	0.1
3:26:18	3375.00	0	306	0.1
3:26:21	3375.00	0	306	0.1

3:26:24	3375.00	0	306	0.1
3:26:27	3375.00	0	306	0
3:26:30	3375.00	0	306	0
3:26:33	3375.00	0	306	0.1
3:26:36	3375.00	0	306	0.1
3:26:39	3375.00	0	306	0
3:26:42	3375.00	0	306	0.1
3:26:45	3375.00	0	306	0.1
3:26:48	3375.00	0	306	0.1
3:26:51	3375.00	0	306	0.1
3:26:54	3375.00	0	306	0.1
3:26:57	3375.00	0	306	0.1
3:27:00	3375.00	0	306	0.1
3:27:03	3375.00	0	306	0.1
3:27:06	3375.00	0	306	0.1
3:27:09	3375.00	0	306	0.1
3:27:12	3375.00	0	306	0.1
3:27:15	3375.00	0	306	0.1
3:27:18	3375.00	0	306	0.1
3:27:21	3375.00	0	306	0.1
3:27:24	3375.00	0	306	0.1
3:27:27	3375.00	0	306	0.1
3:27:30	3375.00	0	306	0
3:27:33	3375.00	0	306	0.1
3:27:36	3375.00	0	306	0
3:27:39	3375.00	0	306	0.1
3:27:42	3375.00	0	306	0.1
3:27:45	3375.00	0	306	0.1
3:27:48	3375.00	0	306	0.1
3:27:51	3375.00	0	306	0.1
3:27:54	3375.00	0	306	0.1
3:27:57	3375.00	0	306	0.1
3:28:00	3375.00	0	306	0.1
3:28:03	3375.00	0	306	0.1
3:28:06	3375.00	0	306	0
3:28:09	3375.00	0	306	0.1
3:28:12	3375.00	0	306	0.1
3:28:15	3375.00	0	306	0.1
3:28:18	3375.00	0	306	0.1
3:28:21	3375.00	0	306	0.1
3:28:24	3375.00	0	306	0.1
3:28:27	3375.00	0	306	0.1
3:28:30	3375.00	0	306	0.1
3:28:33	3375.00	0	306	0.1
3:28:36	3375.00	0	306	0.1
3:28:39	3375.00	0	306	0.1
3:28:42	3375.00	0	306	0.1
3:28:45	3375.00	0	306	0.1
3:28:48	3375.00	0	306	0.1
3:28:51	3375.00	0	306	0.1
3:28:54	3375.00	0	306	0.1
3:28:57	3375.00	0	306	0.1
3:29:00	3375.00	0	306	0
3:29:03	3375.00	0	306	0.1
3:29:06	3375.00	0	306	0.1
3:29:09	3375.00	0	306	0.1
3:29:12	3375.00	0	306	0.1
3:29:15	3375.00	0	306	0.1
3:29:18	3375.00	0	306	0.1
3:29:21	3375.00	0	306	0
3:29:24	3375.00	0	306	0.1
3:29:27	3375.00	0	306	0.1
3:29:30	3375.00	0	306	0.1
3:29:33	3375.00	0	306	0
3:29:36	3375.00	0	306	0.1
3:29:39	3375.00	0	306	0.1
3:29:42	3375.00	0	306	0.1
3:29:45	3375.00	0	306	0.1
3:29:48	3375.00	0	306	0.1
3:29:51	3375.00	0	306	0
3:29:54	3375.00	0	306	0.1
3:29:57	3375.00	0	306	0.1
3:30:00	3375.00	0	306	0.1

地震発生時想定

シミュレーションケース：苦東厚真3台同時トリップ（N-3）
 苦東厚真ルート断 風力等の周波数リレーによるトリップ

UFR拡大
 京極2台 緊急起動

地震発生後に脱落した苦東厚真2、4号機及びその他発電事業者の出力変化は次のような設定としている。

苦東厚真2、4号機	脱落時刻	3:08:21
	出力計	1154MW→0MW
その他発電事業者	脱落時刻	3:08:24
	出力計	344MW→110MW

緊急起動させる京極発電所2台の出力変化は次のように設定している。

京極発電所2台	起動時刻	3:11:24	出力最大時刻	3:12:24
	出力計	0MW	→ 出力計	400MW

それ以外の入力データについては以下の通りとしている。

※1 シミュレーションにより再現を行うために、入力した負荷の値(ただし、入力用のため負荷遮断は反映していない)

※2 苦東厚真1号機は3:08:21に脱落を設定

※3 ガバナフリー機を除く

time(s)	需要 ^{※1} (MW)	苦東厚真1号機出力 ^{※2} (MW)	水力出力計 ^{※3} (MW)	主な風力(MW)
3:00:00	3039.53	330	728.33	162
3:00:03	3048.28	331	728.38	160.9
3:00:06	3049.30	330	728.15	159.8
3:00:09	3044.27	330	727.92	159.4
3:00:12	3049.06	330	728.36	158.8
3:00:15	3050.08	330	727.69	159.7
3:00:18	3043.41	330	727.72	159.4
3:00:21	3028.90	330	728.31	158.7
3:00:24	3036.54	330	728.5	162.9
3:00:27	3035.31	330	727.97	163
3:00:30	3034.20	330	728.31	163.5
3:00:33	3031.97	330	728.38	163.7
3:00:36	3033.42	330	728.72	165.1
3:00:39	3042.55	330	727.96	165.1
3:00:42	3036.24	331	727.3	163.5
3:00:45	3031.69	331	727.34	163.6
3:00:48	3030.01	331	727.62	163.9
3:00:51	3032.58	331	726.68	163.6
3:00:54	3040.97	331	725.92	162.6
3:00:57	3039.19	331	726.7	162.7
3:01:00	3038.16	332	725.61	163.1
3:01:03	3038.40	332	726	162.6
3:01:06	3035.72	332	725.07	161.6
3:01:09	3043.24	332	724.79	162
3:01:12	3044.20	333	724.55	163.3
3:01:15	3049.72	334	724.97	163.4
3:01:18	3047.10	334	724.85	161
3:01:21	3044.89	334	722.63	161
3:01:24	3046.70	334	724.79	158.6
3:01:27	3051.53	334	723.32	158.5
3:01:30	3042.71	334	722.15	159.7
3:01:33	3053.03	334	724.32	160.4
3:01:36	3055.66	334	723.16	159.9
3:01:39	3042.20	334	723.8	160.5
3:01:42	3044.10	335	722.8	163.2
3:01:45	3045.02	334	723.36	162.4
3:01:48	3051.19	334	724.48	162.9
3:01:51	3057.38	334	723.97	164.3
3:01:54	3042.75	334	724.04	162
3:01:57	3050.25	335	724.54	162.3
3:02:00	3039.48	334	724.12	162.7
3:02:03	3037.27	334	724.06	163.1
3:02:06	3036.31	334	724.5	162.7
3:02:09	3040.68	335	724.82	161.9
3:02:12	3043.74	335	725.08	163
3:02:15	3042.53	335	724.42	162
3:02:18	3044.92	334	724.01	161.3
3:02:21	3049.60	335	725.04	160.5
3:02:24	3051.56	334	724.35	160.3
3:02:27	3048.71	334	724.85	160.5
3:02:30	3052.74	334	724.78	159.1
3:02:33	3049.06	334	724.86	158.9
3:02:36	3051.21	334	723.8	159.5

3:02:39	3053.87	334	724.06	159.1
3:02:42	3054.31	333	723.66	158.5
3:02:45	3056.90	333	723.75	159.5
3:02:48	3059.50	334	723.45	161.1
3:02:51	3053.05	333	723.4	160.6
3:02:54	3055.99	333	723.94	159.8
3:02:57	3058.25	334	724.46	159.9
3:03:00	3049.55	334	724.65	159.8
3:03:03	3050.39	334	724.99	159.2
3:03:06	3054.94	336	725.39	159.5
3:03:09	3056.18	335	725.88	158.5
3:03:12	3062.62	335	726.17	160.1
3:03:15	3061.75	336	726.65	160.1
3:03:18	3058.15	335	726.5	160.9
3:03:21	3059.31	335	727.71	159.6
3:03:24	3050.44	336	726.69	157.8
3:03:27	3044.91	336	726.41	157.3
3:03:30	3046.36	337	727.52	156.8
3:03:33	3041.94	336	727.34	156.9
3:03:36	3035.24	337	727.24	158.2
3:03:39	3049.13	337	728.08	158.8
3:03:42	3052.81	337	728.51	161.8
3:03:45	3049.97	336	727.82	161.7
3:03:48	3047.60	337	727.85	160.9
3:03:51	3048.44	337	728.59	161
3:03:54	3046.99	337	727.49	161.7
3:03:57	3041.72	337	727.92	161.2
3:04:00	3051.09	337	728.99	162.6
3:04:03	3047.96	336	728.11	163.3
3:04:06	3043.30	337	728.15	160.6
3:04:09	3044.55	337	728.11	160.4
3:04:12	3046.74	338	728.49	163.9
3:04:15	3042.37	338	728.07	164
3:04:18	3040.73	338	728.58	162.6
3:04:21	3043.20	338	727.8	163.2
3:04:24	3046.42	338	728.76	161.5
3:04:27	3053.95	339	728.8	160.9
3:04:30	3051.39	338	728.24	162.3
3:04:33	3052.69	338	728.78	162.3
3:04:36	3057.99	339	729.83	162.2
3:04:39	3057.61	338	729.36	162.4
3:04:42	3054.95	339	729.35	162.7
3:04:45	3047.91	339	729.31	162.5
3:04:48	3050.26	339	729.2	163.4
3:04:51	3052.26	339	729.15	163.1
3:04:54	3053.29	340	728.63	163.7
3:04:57	3052.87	340	729.71	164.1
3:05:00	3047.23	339	729.53	164.1
3:05:03	3041.98	339	729.72	165.5
3:05:06	3057.47	339	729.11	166.3
3:05:09	3055.22	339	730.06	166
3:05:12	3046.08	339	729.22	165.8
3:05:15	3045.68	339	729.77	167.3
3:05:18	3050.80	339	730	168
3:05:21	3036.81	339	729.7	167.4
3:05:24	3039.95	339	729.94	167.9
3:05:27	3052.56	340	730.15	167.9
3:05:30	3050.37	339	728.76	167.4
3:05:33	3051.04	339	728.79	167.8
3:05:36	3044.59	338	728.44	165.1
3:05:39	3051.61	340	729.86	164.8
3:05:42	3049.86	338	729.71	165.4
3:05:45	3045.98	338	729.33	163.7
3:05:48	3046.62	339	728.87	165.6
3:05:51	3040.34	339	729.04	166.3
3:05:54	3042.92	339	729.02	167.3
3:05:57	3048.19	339	728.94	167.6
3:06:00	3050.43	338	728.88	167.5
3:06:03	3048.38	339	728.68	166.8
3:06:06	3046.16	339	728.51	165
3:06:09	3044.47	338	728.12	165.8
3:06:12	3046.00	338	728.15	168.1
3:06:15	3037.67	338	728.12	167.6
3:06:18	3037.06	339	728.36	165.7
3:06:21	3038.54	339	728.94	166.6
3:06:24	3038.86	338	728.5	168.4
3:06:27	3042.80	339	728.84	169.4
3:06:30	3044.53	338	729.13	169.6
3:06:33	3039.00	339	728.2	169.6

3:06:36	3040.60	339	729	168.8
3:06:39	3034.62	339	729.07	168.8
3:06:42	3031.91	339	728.76	168.2
3:06:45	3041.49	338	728.49	169.4
3:06:48	3044.39	339	728.39	171.6
3:06:51	3046.52	339	728.47	170.8
3:06:54	3032.24	338	727.69	169
3:06:57	3034.13	340	728.87	168.2
3:07:00	3041.97	338	727.77	166.2
3:07:03	3033.16	340	727.45	166.1
3:07:06	3051.02	339	727.56	168.2
3:07:09	3057.03	339	728.32	167.1
3:07:12	3056.44	339	727.63	166
3:07:15	3058.11	339	727.99	165.2
3:07:18	3064.86	339	727.19	163.8
3:07:21	3067.42	340	729.2	164
3:07:24	3064.38	339	727.92	164.1
3:07:27	3061.62	339	727.95	164.7
3:07:30	3075.24	340	728.48	169
3:07:33	3068.26	339	728.45	169.5
3:07:36	3065.71	340	728.05	173.5
3:07:39	3067.62	340	727.96	174.7
3:07:42	3072.72	340	728.31	173.6
3:07:45	3073.86	340	728.21	173.7
3:07:48	3065.81	339	728.06	172.3
3:07:51	3072.32	339	727.87	172.2
3:07:54	3070.64	340	727.35	170.1
3:07:57	3060.17	340	727.52	169.1
3:08:00	3063.04	340	727.34	167.8
3:08:03	3071.49	339	727.99	167.7
3:08:06	3063.36	340	727.41	168.3
3:08:09	3060.55	339	727	166.9
3:08:12	3071.05	339	727	167.3
3:08:15	3075.37	340	727.33	165.8
3:08:18	3081.34	338	728	165.4
3:08:21	3070.00	338	728	137.5
3:08:24	3070.00	336	728	122.2
3:08:27	3070.00	298	728	61.7
3:08:30	3070.00	298	728	8.8
3:08:33	3070.00	298	728	7.5
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3:08:39	3070.00	314	728	1.1
3:08:42	3070.00	294	728	1.1
3:08:45	3054.34	308	728	0.9
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3:08:51	3075.71	312	728	1
3:08:54	3071.47	312	728	1
3:08:57	3060.10	312	728	0.9
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3:09:06	3079.66	316	728	1
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3:09:12	3089.56	312	728	0.9
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3:09:18	3096.11	312	728	1
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3:09:36	3085.68	310	728	1
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3:09:42	3093.65	308	728	1
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3:10:18	3183.77	304	728	1.1
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3:11:09	3216.37	312	728	1
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3:11:18	3218.59	316	728	1
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3:11:24	3218.15	318	728	1
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3:11:54	3218.74	320	728	1
3:11:57	3225.68	320	728	0.9
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3:13:24	3230.16	320	728	1
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3:13:54	3238.13	320	728	1
3:13:57	3239.70	320	728	0.9
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3:14:42	3239.73	320	728	1
3:14:45	3242.13	320	728	1
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3:15:27	3242.51	324	728	2.1
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3:15:33	3242.36	324	728	3.3
3:15:36	3243.25	324	728	3.3
3:15:39	3243.72	326	728	3.3
3:15:42	3250.62	328	728	3.9
3:15:45	3252.46	328	728	4.1
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3:16:00	3251.02	328	728	3.5
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3:16:06	3255.58	330	728	3.7
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3:16:12	3246.59	332	728	3.6
3:16:15	3249.15	332	728	3.8
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3:16:21	3257.49	336	728	3.7
3:16:24	3259.21	338	728	3.7
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3:16:30	3254.67	336	728	3.7
3:16:33	3256.02	338	728	3.7
3:16:36	3256.95	340	728	3.8
3:16:39	3253.80	340	728	3.7
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3:18:09	3252.84	340	728	3.1
3:18:12	3253.48	340	728	3.2
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3:18:18	3254.78	340	728	3.3
3:18:21	3249.22	340	728	3.6
3:18:24	3242.27	338	728	3.6

3:18:27	3248.72	340	728	3.7
3:18:30	3246.84	338	728	3.8
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3:18:36	3247.24	340	728	2.9
3:18:39	3246.47	338	728	2.8
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3:18:48	3248.88	338	728	2.9
3:18:51	3243.82	338	728	2.9
3:18:54	3243.72	338	728	3
3:18:57	3246.65	338	728	3
3:19:00	3247.61	338	728	3.1
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3:19:27	3244.73	336	728	2.7
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3:19:36	3246.25	334	728	2.7
3:19:39	3243.04	334	728	2.7
3:19:42	3234.45	332	728	2.7
3:19:45	3230.08	332	728	2.9
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3:20:51	3216.83	296	728	2.6
3:20:54	3219.57	296	728	2.7
3:20:57	3218.07	296	728	2.6
3:21:00	3222.54	296	728	2.6
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3:21:30	3216.99	248	728	2.7
3:21:33	3218.48	242	728	2.7
3:21:36	3215.03	240	728	2.7
3:21:39	3215.15	236	728	2.7
3:21:42	3216.01	236	728	2.6
3:21:45	3215.71	236	728	2.7
3:21:48	3216.08	232	728	2.7
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3:22:15	3211.44	198	728	2.4
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3:23:15	3217.22	109	728	2.3
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3:23:54	3219.03	105	728	2
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3:28:48	3245.00	0	728	0.1
3:28:51	3245.00	0	728	0.1
3:28:54	3245.00	0	728	0.1
3:28:57	3245.00	0	728	0.1
3:29:00	3245.00	0	728	0
3:29:03	3245.00	0	728	0.1
3:29:06	3245.00	0	728	0.1
3:29:09	3245.00	0	728	0.1
3:29:12	3245.00	0	728	0.1
3:29:15	3245.00	0	728	0.1
3:29:18	3245.00	0	728	0.1
3:29:21	3245.00	0	728	0
3:29:24	3245.00	0	728	0.1
3:29:27	3245.00	0	728	0.1
3:29:30	3245.00	0	728	0.1
3:29:33	3245.00	0	728	0
3:29:36	3245.00	0	728	0.1
3:29:39	3245.00	0	728	0.1
3:29:42	3245.00	0	728	0.1
3:29:45	3245.00	0	728	0.1
3:29:48	3245.00	0	728	0.1
3:29:51	3245.00	0	728	0
3:29:54	3245.00	0	728	0.1
3:29:57	3245.00	0	728	0.1
3:30:00	3245.00	0	728	0.1

再エネ
最大時
想定

シミュレーションケース：苦東厚真3台同時トリップ（N-3）
苦東厚真
ルート断
風力等の周波数リレーによるトリップ

UFR拡大

京極 揚水遮断

同時脱落する苦東厚真1、2、4号機については次のような設定としている。

苦東厚真1、2、4号機 脱落時刻 0s
出力計 1600MW→0MW

その他発電事業者の出力及び揚水遮断に見込む揚水量は次のように設定している。

その他発電事業者 出力計 226MW
揚水運転 揚水量 260MW

それ以外の入力データについては以下の通りとしている。

※ シミュレーションを行うため、入力した負荷の値（ただし、入力用のため負荷遮断は反映していない）

time(s)	需要※(MW)	水力出力計(MW)	太陽光・主な風力(MW)
-30	3750	309	802
-27	3750	309	802
-24	3750	309	802
-21	3750	309	802
-18	3750	309	802
-15	3750	309	802
-12	3750	309	802
-9	3750	309	802
-6	3750	309	802
-3	3750	309	802
0	3750	309	802
3	3750	309	802
6	3750	309	802
9	3750	309	802
12	3750	309	802
15	3750	309	802
18	3750	309	802
21	3750	309	802
24	3750	309	802
27	3750	309	802
30	3750	309	802
33	3750	309	802
36	3750	309	802
39	3750	309	802
42	3750	309	802
45	3750	309	802
48	3750	309	802
51	3750	309	802
54	3750	309	802
57	3750	309	802
60	3750	309	802
63	3750	309	802
66	3750	309	802
69	3750	309	802
72	3750	309	802
75	3750	309	802
78	3750	309	802
81	3750	309	802
84	3750	309	802
87	3750	309	802
90	3750	309	802
93	3750	309	802
96	3750	309	802
99	3750	309	802
102	3750	309	802
105	3750	309	802
108	3750	309	802
111	3750	309	802
114	3750	309	802
117	3750	309	802
120	3750	309	802