

Ancillary Services Data

Hour 1														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	50	5	30	48	3	36	55	2	34	10	6	25	113	
2	20	6	34	37	7	24	85	8	22	15	6	28	137	
3	50	4	38	45	6	26	50	3	33	20	2	49	115	
4	15	4	40	48	4	36	10	7	30	20	3	31	78	
5	36	8	24	11	4	37	50	4	37	65	4	50	126	
6	90	6	35	38	6	27	50	7	28	85	2	39	173	
7	44	7	25	39	6	22	90	7	24	10	4	45	139	
8	45	5	32	41	6	25	35	8	27	30	4	39	106	
9	20	4	40	11	2	34	60	3	32	60	8	26	131	
10	10	7	28	46	4	48	95	8	24	20	5	39	161	
11	20	4	46	47	6	22	35	5	42	20	4	46	102	
12	15	4	39	15	4	41	70	3	47	60	6	25	145	
13	10	5	30	48	6	26	10	7	25	90	6	26	148	
14	5	6	27	34	2	38	65	7	24	50	2	48	149	
15	10	4	35	12	7	28	20	5	49	20	8	28	52	
Required	350.1543			362.0124			613.3876			499.2676			1824.8218	

Hour 2														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	60	5	49	54	2	36	51	5	31	38	6	23	143	
2	41	7	22	47	8	23	22	2	45	49	7	24	118	
3	58	4	42	50	8	20	59	3	32	25	6	25	134	
4	6	3	37	13	3	40	50	5	33	49	5	44	112	
5	8	8	23	55	5	46	55	3	50	60	5	46	170	
6	22	4	50	26	4	47	36	2	48	80	5	47	142	
7	56	7	26	36	8	22	44	4	46	11	4	43	91	
8	11	7	25	17	7	20	22	2	50	11	4	41	50	
9	10	2	39	23	5	37	50	2	43	80	3	43	153	
10	42	8	27	32	4	35	37	5	46	18	7	23	87	
11	42	4	37	36	2	41	54	5	31	50	3	45	140	
12	14	6	24	18	4	44	56	6	29	50	8	30	124	
13	22	2	33	37	5	47	43	7	24	47	3	32	127	
14	15	7	22	31	8	27	58	5	44	29	7	20	118	
15	18	3	41	42	8	27	18	4	32	22	7	20	82	
Required	350.2979			355.8661			603.6742			571.5309			1881.3691	

Hour 3														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	33	2	44	52	6	24	50	4	47	27	3	48	129	
2	31	3	31	16	6	20	70	7	22	28	2	43	114	
3	49	2	34	18	7	22	28	3	44	29	3	46	75	
4	25	7	23	43	2	44	58	7	23	15	8	26	116	
5	14	5	46	46	7	26	36	7	23	57	6	27	139	
6	14	5	50	35	6	27	58	3	44	50	6	28	143	
7	59	4	49	57	7	21	53	2	48	50	5	34	160	
8	8	3	50	11	2	41	31	7	24	38	7	23	80	
9	38	4	45	46	6	24	23	4	50	53	3	50	122	
10	54	5	48	50	8	20	70	6	23	48	8	30	168	
11	41	2	38	38	3	33	48	5	50	26	2	48	112	
12	25	8	28	59	2	36	32	6	23	50	2	48	141	
13	36	4	33	55	2	33	26	7	25	47	3	50	128	
14	48	3	42	9	7	24	41	5	39	58	3	36	108	
15	5	5	37	17	5	45	70	3	36	50	8	28	137	
Required	350.1568			354.1726			603.1028			561.7365			1869.1687	

Hour 4														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	22	5	47	59	8	24	70	5	32	48	3	39	177	
2	26	2	38	48	8	21	53	5	39	31	8	21	132	
3	37	4	48	48	8	25	20	8	24	31	7	22	99	
4	5	5	50	14	5	48	24	4	40	50	4	41	88	
5	41	6	23	26	5	31	59	5	39	22	8	29	107	
6	14	2	33	60	8	25	49	7	23	24	5	36	133	
7	30	6	29	19	5	42	70	6	29	55	7	25	144	
8	47	6	24	16	6	29	59	2	34	50	7	24	125	
9	45	7	24	39	7	24	26	7	22	51	6	23	116	
10	33	3	49	25	8	21	19	6	22	26	7	30	70	
11	15	8	22	13	5	37	23	2	35	90	7	26	126	
12	55	3	33	29	8	20	39	7	24	53	7	28	121	
13	18	2	50	10	5	37	53	2	41	25	4	43	88	
14	30	3	31	34	4	37	33	4	33	30	6	30	97	
15	25	8	27	51	2	46	35	7	26	57	6	21	143	
Required	350.223			353.8284			607.9795			563.3867			1875.4176	

Hour 5														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	55	7	21	32	7	24	34	4	36	55	5	42	121	
2	57	3	38	23	4	46	49	2	33	70	8	27	142	
3	8	8	22	7	6	28	46	3	49	59	3	39	112	
4	6	8	24	7	8	22	50	8	27	60	3	40	117	
5	7	8	28	50	4	48	53	2	43	38	3	50	141	
6	51	3	47	42	7	29	42	4	33	12	8	27	150	
7	27	2	41	45	4	46	38	6	20	70	8	27	153	
8	19	3	40	42	5	45	30	4	43	10	3	39	100	
9	60	8	24	58	5	32	19	2	44	39	2	36	116	
10	55	4	42	43	5	40	47	8	30	70	8	27	160	
11	54	8	30	10	3	45	58	3	36	50	2	38	118	
12	41	4	34	13	5	43	50	6	22	50	8	29	113	
13	55	3	42	54	5	40	47	5	41	34	7	27	135	
14	37	3	37	59	7	22	25	2	42	36	3	33	120	
15	40	2	39	12	2	39	60	6	24	11	4	31	100	
Required	350.3335			353.2718			619.0938			587.5894			1910.2885	

Hour 6														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	10	7	23	13	4	41	70	8	20	80	8	30	163	
2	58	5	40	38	3	43	43	2	35	56	2	44	137	
3	45	4	36	60	2	46	54	4	48	58	3	33	172	
4	59	2	41	36	4	31	39	3	31	50	8	24	125	
5	55	2	48	29	4	32	49	2	34	51	6	25	129	
6	41	2	39	28	4	36	16	2	38	36	2	48	80	
7	38	4	46	24	2	43	56	2	37	31	3	49	111	
8	7	4	46	15	2	47	80	8	24	50	7	21	145	
9	34	2	49	14	8	27	59	3	42	25	8	26	98	
10	5	3	44	58	5	44	48	5	40	38	5	40	144	
11	10	3	34	45	7	24	60	2	42	50	4	45	155	
12	8	6	25	14	2	42	80	8	25	39	8	27	133	
13	14	6	23	23	5	49	40	7	21	50	8	21	113	
14	6	7	21	47	5	35	43	5	36	50	7	24	140	
15	55	7	24	54	3	36	26	8	27	35	8	22	115	
Required	351.1565			351.6435			651.6612			653.0676			2007.5288	

Hour 7														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	47	4	42	10	2	32	50	2	34	34	4	40	94	
2	23	2	32	17	7	26	50	4	31	25	8	23	92	
3	53	6	21	9	5	37	80	5	38	60	4	31	149	
4	50	5	48	30	2	36	40	8	26	40	4	50	110	
5	9	8	20	48	8	21	45	8	25	50	6	29	143	
6	44	8	25	21	5	42	50	5	35	45	7	29	116	
7	55	3	48	39	7	22	25	6	28	40	7	29	104	
8	48	7	25	5	5	36	47	2	45	54	6	22	106	
9	59	7	22	26	6	26	54	3	35	55	6	27	135	
10	59	8	29	14	5	38	49	3	32	54	7	22	117	
11	15	3	34	56	7	28	19	4	35	40	5	41	115	
12	13	3	45	28	7	20	50	6	23	35	4	37	113	
13	46	5	37	22	7	21	41	6	20	40	5	38	103	
14	30	3	48	51	4	42	40	4	35	40	5	31	131	
15	60	5	31	29	5	43	90	3	40	40	8	26	159	
Required	351.2027			352.2570			687.7000			625.4078			2016.5675	

Hour 8														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	23	4	47	30	2	36	48	5	47	57	4	37	135	
2	25	7	29	48	4	44	50	8	27	90	8	27	188	
3	25	5	31	43	7	27	37	4	37	40	4	41	120	
4	32	6	25	45	3	45	56	7	27	21	5	43	122	
5	37	7	25	59	8	23	36	5	45	40	6	26	135	
6	40	5	33	52	7	28	50	6	23	46	8	23	148	
7	31	8	21	27	4	49	50	8	26	33	2	47	110	
8	25	4	45	50	8	25	50	7	27	43	4	43	143	
9	37	2	35	12	8	28	27	6	23	40	7	28	79	
10	21	3	41	54	2	42	45	3	31	42	5	46	141	
11	38	5	40	29	5	45	90	7	21	47	2	34	166	
12	21	7	26	8	2	44	59	8	22	11	6	21	78	
13	12	8	21	30	6	20	28	5	40	29	7	20	87	
14	25	4	35	46	4	37	50	3	33	90	3	38	186	
15	47	7	23	30	3	49	80	7	22	20	4	35	130	
Required	350.9308			348.8363			695.5625			612.0908			2007.4203	

Hour 9														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	18	4	49	52	2	37	80	7	25	50	4	38	182	
2	24	8	22	43	7	24	58	5	40	44	5	38	145	
3	33	7	24	33	3	43	55	4	32	54	5	47	142	
4	47	7	22	5	6	30	31	8	20	50	7	22	86	
5	24	8	21	56	3	35	59	2	40	52	8	28	167	
6	56	4	44	36	6	30	36	7	23	80	5	32	152	
7	22	6	28	8	7	27	34	6	21	51	8	27	93	
8	18	5	49	5	8	27	55	2	31	50	7	21	110	
9	7	2	41	57	5	42	60	6	30	21	6	23	138	
10	60	4	32	28	3	50	49	8	26	57	3	50	134	
11	41	5	31	54	3	46	46	8	20	23	4	43	123	
12	48	8	30	7	3	50	59	2	40	14	8	24	80	
13	9	3	32	7	7	30	80	5	41	50	5	49	137	
14	53	4	47	10	3	46	40	3	33	70	8	30	120	
15	58	3	47	56	7	27	50	8	27	80	8	26	186	
Required	351.0837			352.1751			727.2278			689.9996			2120.4863	

Hour 10														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	55	2	34	28	3	42	80	7	24	15	55	2	34	
2	36	3	44	32	4	36	80	8	23	80	36	3	44	
3	27	2	32	44	8	30	36	3	35	23	27	2	32	
4	59	7	24	34	2	48	90	2	50	40	59	7	24	
5	20	7	26	29	2	50	33	5	50	55	20	7	26	
6	37	2	38	50	4	33	50	4	35	28	37	2	38	
7	60	5	36	21	5	38	57	5	35	60	60	5	36	
8	16	6	20	43	2	38	40	4	33	40	16	6	20	
9	39	7	25	26	5	37	41	5	42	40	39	7	25	
10	31	6	25	36	5	33	90	8	23	50	31	6	25	
11	54	3	31	6	7	21	21	5	48	56	54	3	31	
12	20	2	36	47	2	34	46	3	36	60	20	2	36	
13	30	6	25	19	2	46	42	8	21	45	30	6	25	
14	16	2	34	29	6	30	80	5	50	54	16	2	34	
15	30	3	35	38	3	34	42	5	41	70	30	3	35	
Required	351.4867			350.9496			752.6653			652.5952			2107.6968	

Hour 11														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	30	4	36	43	6	26	35	3	49	44	6	25	122	
2	45	4	44	33	7	22	80	2	47	40	8	22	153	
3	31	8	20	40	6	28	60	7	23	60	5	44	160	
4	8	6	27	53	6	25	30	7	25	50	6	28	133	
5	11	2	32	20	6	25	38	4	41	45	4	33	103	
6	39	8	22	7	5	46	40	3	39	36	5	34	83	
7	56	7	25	43	5	41	10	6	22	25	6	21	78	
8	27	6	23	46	4	49	90	7	30	60	7	21	196	
9	33	3	31	37	5	36	31	3	40	20	5	37	88	
10	18	2	39	13	4	49	85	2	42	60	2	38	158	
11	56	3	44	47	5	36	75	7	24	45	6	22	167	
12	43	6	24	58	4	32	40	8	27	24	8	20	122	
13	21	7	23	8	4	48	39	7	26	70	2	43	117	
14	49	8	30	57	3	44	78	5	47	70	3	33	205	
15	7	5	44	30	5	34	90	7	30	50	7	25	170	
Required	351.5932			349.9758			754.9250			657.4953			2113.9893	

Hour 12														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	10	6	22	47	2	35	70	7	22	59	3	35	176	
2	8	2	34	23	3	32	44	2	34	36	8	28	103	
3	42	8	21	35	3	38	49	5	47	65	2	49	149	
4	5	6	21	58	7	24	37	8	20	60	4	37	155	
5	43	8	29	17	6	24	50	6	28	40	6	22	107	
6	42	7	28	49	3	45	33	3	49	39	4	33	121	
7	51	7	21	34	2	41	27	2	37	60	2	44	121	
8	49	4	48	46	8	26	85	7	30	16	2	47	147	
9	47	8	30	9	8	27	75	3	50	29	4	49	113	
10	46	3	46	58	5	46	39	8	25	56	2	45	153	
11	54	8	29	43	7	27	37	8	29	90	8	22	170	
12	59	8	24	53	5	42	70	8	21	45	2	47	168	
13	32	7	22	40	6	23	75	6	23	28	2	39	143	
14	47	6	22	7	4	48	51	7	28	45	2	48	103	
15	5	8	24	23	7	29	80	4	38	40	7	22	143	
Required	351.8472			356.5687			760.0674			675.2438			2143.7271	

Hour 13														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	56	3	48	19	2	39	40	6	25	53	2	46	112	
2	26	6	20	29	7	27	80	6	27	54	5	49	163	
3	5	5	46	30	6	28	49	7	23	27	6	23	106	
4	36	7	27	8	7	26	45	3	40	52	5	41	105	
5	46	3	35	40	4	40	65	3	50	10	6	27	115	
6	19	2	45	23	3	48	60	5	34	28	6	23	111	
7	23	3	36	30	2	38	55	8	23	38	7	22	123	
8	6	8	30	9	6	20	50	8	20	95	8	28	154	
9	24	2	31	23	6	21	31	5	44	46	4	32	100	
10	41	8	28	22	5	41	65	6	20	49	3	49	136	
11	8	8	29	49	7	25	24	2	36	45	3	42	118	
12	22	4	44	44	8	29	47	3	46	35	3	31	126	
13	58	3	32	16	7	28	60	6	29	75	4	46	151	
14	35	2	48	59	3	43	53	2	39	30	2	36	142	
15	44	6	26	50	5	43	90	3	47	80	7	30	220	
Required	351.9255			350.4519			764.9294			658.7826			2126.0894	

Hour 14														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	59	4	33	33	2	47	90	7	29	80	6	30	203	
2	29	8	21	30	6	27	45	6	26	90	8	23	165	
3	29	4	41	7	2	43	52	8	21	78	8	21	137	
4	44	8	27	28	7	23	60	7	21	55	5	34	143	
5	15	6	28	10	7	30	54	4	49	45	4	34	109	
6	32	7	29	36	7	23	60	5	39	38	2	32	134	
7	34	6	23	58	5	49	60	7	23	60	7	24	178	
8	14	3	50	14	7	22	50	8	24	58	4	36	122	
9	5	2	50	60	5	34	35	5	50	14	8	27	109	
10	9	6	28	48	8	29	45	3	33	16	7	26	109	
11	25	7	20	12	4	47	60	6	22	52	5	31	124	
12	53	6	29	41	2	45	80	5	40	58	3	39	179	
13	58	4	42	30	6	23	58	8	23	30	8	21	118	
14	41	4	46	25	7	24	26	4	45	34	2	44	85	
15	11	7	21	54	6	24	19	2	33	9	5	43	82	
Required	351.8560			353.5352			732.6469			652.8645			2090.9027	

Hour 15														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	58	6	23	28	5	42	24	5	44	42	8	20	94	
2	21	3	47	50	7	27	53	3	47	59	7	28	162	
3	26	2	49	13	7	25	90	4	36	57	8	30	160	
4	9	7	20	6	6	30	57	4	38	80	7	29	143	
5	28	4	32	56	3	37	29	7	20	33	4	46	118	
6	22	2	36	29	3	41	57	8	21	90	6	20	176	
7	43	4	39	22	4	44	58	3	49	45	4	36	125	
8	37	5	34	55	7	25	54	6	22	45	2	45	154	
9	46	3	43	56	6	23	45	4	37	48	7	23	149	
10	13	7	24	55	6	28	30	6	23	20	7	26	105	
11	15	4	49	16	6	30	60	2	34	15	6	23	91	
12	10	8	23	52	4	48	59	5	46	11	3	44	122	
13	47	4	37	58	3	46	65	8	29	39	4	37	162	
14	25	7	25	25	7	26	75	7	29	41	8	30	141	
15	59	7	26	42	3	32	70	7	24	58	3	33	170	
Required	351.946			350.5195			755.8926			644.278			2102.6361	

Hour 16														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	28	8	29	25	7	28	58	2	44	60	5	38	143	
2	45	3	47	10	2	48	90	7	27	41	7	28	141	
3	18	5	47	10	5	40	45	7	21	45	7	29	100	
4	10	6	20	37	6	28	30	7	21	38	8	27	105	
5	50	3	45	59	5	47	51	6	23	70	2	50	180	
6	44	8	20	48	2	42	37	3	37	65	6	21	150	
7	20	4	31	40	6	20	60	8	25	45	5	43	145	
8	47	6	24	47	8	20	60	2	38	51	8	23	158	
9	38	8	25	49	6	22	95	7	21	44	6	30	188	
10	41	5	50	58	6	26	90	2	31	45	4	32	193	
11	15	2	39	8	2	39	48	4	41	50	7	22	106	
12	24	4	45	21	6	29	45	6	26	40	2	31	106	
13	12	2	43	34	6	23	53	2	42	38	7	25	125	
14	40	7	25	48	2	35	55	6	20	40	4	50	143	
15	27	8	24	48	4	31	40	8	29	39	4	47	127	
Required	351.0226			350.4047			732.8112			627.5729			2061.8113	

Hour 17														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	9	6	27	45	2	37	90	5	32	59	4	43	194	
2	7	4	35	34	8	23	43	4	40	28	8	26	105	
3	25	2	35	23	2	33	42	6	26	31	2	35	96	
4	14	5	34	20	7	29	57	7	21	56	3	39	133	
5	22	5	31	47	7	20	49	8	29	60	8	29	156	
6	26	3	37	41	8	26	45	8	26	60	8	29	146	
7	56	7	30	32	3	42	90	4	31	60	3	33	182	
8	56	5	33	33	3	32	48	8	24	39	5	38	120	
9	46	4	31	24	8	24	48	2	48	60	6	21	132	
10	33	5	46	58	5	49	60	4	49	45	2	38	163	
11	57	3	37	31	8	24	51	3	38	39	2	45	121	
12	47	6	27	42	8	30	60	2	43	50	5	34	152	
13	28	2	41	20	6	29	42	8	23	90	6	30	152	
14	9	7	23	14	6	29	52	2	47	21	6	21	87	
15	27	7	24	23	8	22	48	2	43	57	7	26	128	
Required	351.5882			348.4770			779.1475			645.6768			2124.8896	

Hour 18														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	55	8	27	16	7	20	50	6	26	31	2	47	97	
2	10	3	46	9	2	39	27	3	50	25	7	28	61	
3	5	5	41	16	4	47	60	8	25	85	8	26	161	
4	15	5	48	35	6	22	70	4	50	48	5	35	153	
5	13	4	46	20	7	22	80	2	42	65	2	38	165	
6	50	5	45	20	8	25	90	3	38	90	4	41	200	
7	36	4	39	5	8	28	39	3	36	19	3	49	63	
8	56	6	22	30	2	46	29	4	47	65	2	46	124	
9	31	2	38	40	7	20	52	5	38	28	4	47	120	
10	13	6	25	23	6	23	34	2	43	75	7	26	132	
11	14	3	43	5	3	33	45	7	24	40	7	21	90	
12	43	3	47	18	8	25	45	8	27	48	7	20	111	
13	45	2	39	54	6	20	90	7	27	46	3	33	190	
14	11	7	28	53	6	22	44	6	26	80	5	46	177	
15	51	8	21	36	4	42	90	5	34	75	6	28	201	
Required	352.2726			348.1415			792.9067			721.9954			2215.3162	

Hour 19														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	11	3	45	29	4	37	20	5	33	56	2	34	105	
2	30	6	27	29	3	34	58	6	30	58	8	26	145	
3	9	5	32	43	8	23	24	6	21	54	8	23	121	
4	60	2	32	54	2	50	30	4	40	55	7	26	139	
5	50	3	47	16	6	28	80	8	20	42	4	48	138	
6	45	8	25	33	3	32	80	2	34	17	8	21	130	
7	40	5	33	44	3	45	37	5	47	38	8	28	119	
8	32	3	41	28	3	31	38	4	39	75	2	37	141	
9	52	6	22	30	2	34	26	8	22	56	3	45	112	
10	29	4	34	52	4	31	75	6	23	90	3	50	217	
11	17	4	33	49	4	31	30	2	40	40	2	39	119	
12	14	6	22	33	3	36	90	3	43	21	2	45	144	
13	24	8	24	55	2	47	75	3	41	30	2	40	160	
14	42	7	25	21	7	24	99	7	22	96	5	36	216	
15	34	7	24	35	7	24	65	8	23	85	8	21	185	
Required	352.6994			356.3687			798.2704			773.8584			2281.1969	

Hour 20														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	27	7	29	27	4	46	80	2	48	75	2	43	182	
2	35	8	23	39	2	32	25	3	47	60	8	29	124	
3	9	8	21	36	8	20	95	3	42	10	7	22	141	
4	35	2	36	7	2	50	96	8	21	28	6	29	131	
5	31	7	24	9	6	20	37	8	28	25	7	20	71	
6	13	7	24	35	2	48	56	8	22	78	6	30	169	
7	49	3	48	50	6	29	48	6	28	60	4	40	158	
8	52	4	39	50	5	47	22	7	22	75	6	24	147	
9	19	7	28	21	6	26	31	5	37	60	3	48	112	
10	11	7	30	59	5	37	75	7	22	90	8	30	224	
11	48	6	28	43	7	21	14	7	27	75	2	41	132	
12	38	4	34	12	2	32	90	7	30	23	6	24	125	
13	50	5	41	16	7	21	99	4	50	57	6	29	172	
14	8	6	24	16	3	47	46	3	35	32	7	25	94	
15	41	4	31	54	2	47	85	3	37	58	6	28	197	
Required	353.3943			360.7283			821.7298			727.8300			2263.6824	

Hour 21														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	19	2	50	21	2	50	99	6	29	90	8	24	210	
2	31	7	22	48	2	40	27	2	36	75	4	41	150	
3	41	2	34	41	2	37	88	8	27	50	3	48	179	
4	49	8	24	19	6	21	49	6	28	47	4	41	115	
5	33	2	36	25	3	45	59	6	20	50	6	25	134	
6	11	2	39	36	6	24	66	3	37	45	3	39	147	
7	20	4	38	34	2	34	20	8	30	36	7	24	90	
8	32	7	23	26	2	35	60	6	30	31	7	28	117	
9	35	6	28	32	7	25	50	8	29	38	8	29	120	
10	52	5	38	16	7	20	30	5	43	52	2	34	98	
11	39	7	20	35	8	24	50	8	24	24	8	26	109	
12	55	5	42	16	8	27	90	5	35	60	5	47	166	
13	18	7	20	16	8	27	98	4	47	28	8	24	142	
14	7	6	21	42	7	25	52	5	32	35	3	31	129	
15	33	5	34	18	5	37	26	4	49	80	7	21	124	
Required	352.541			350.0278			814.6442			672.8768			2190.0898	

Hour 22														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	22	8	20	21	3	36	42	6	25	36	8	24	99	
2	27	8	30	24	4	49	55	5	44	90	8	24	169	
3	9	4	43	40	5	39	46	2	31	60	2	39	146	
4	39	4	34	14	4	50	50	5	34	60	2	33	124	
5	32	3	45	44	5	46	55	7	21	30	3	46	129	
6	60	7	30	14	4	48	75	4	42	30	4	37	119	
7	14	7	24	44	6	26	25	4	49	65	6	20	134	
8	37	2	42	41	5	49	43	8	26	56	7	23	140	
9	8	2	44	32	3	44	75	7	22	39	5	49	146	
10	20	4	41	45	5	45	37	6	26	60	2	45	142	
11	6	4	43	26	8	30	90	2	45	47	2	36	163	
12	45	8	24	51	3	38	55	5	38	27	3	38	133	
13	40	5	50	45	7	30	90	8	26	45	3	48	180	
14	48	5	38	49	6	29	46	8	21	16	8	27	111	
15	20	3	42	32	7	22	45	8	20	55	5	33	132	
Required	352.3147			353.1041			760.3563			656.1711			2121.9463	

Hour 23														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	41	5	42	40	5	37	29	4	31	88	7	30	157	
2	46	5	39	46	5	46	60	2	40	40	2	48	146	
3	60	7	20	53	6	29	75	6	27	40	6	28	168	
4	35	4	43	8	7	21	18	3	35	13	7	28	39	
5	46	8	25	25	4	44	12	5	46	34	8	20	71	
6	17	2	37	28	8	24	85	6	25	58	2	34	171	
7	29	5	47	28	4	36	95	2	34	52	2	49	175	
8	49	3	31	45	2	49	40	8	22	48	6	30	133	
9	55	6	30	50	8	22	40	4	34	60	2	34	150	
10	40	3	40	44	4	41	90	3	33	29	7	27	163	
11	18	7	30	20	8	22	18	4	40	90	4	46	128	
12	19	5	31	53	8	25	24	4	42	41	3	43	118	
13	15	2	35	53	4	40	90	6	24	10	5	47	153	
14	36	4	34	24	5	47	75	5	43	46	6	20	145	
15	47	8	24	27	7	21	55	6	30	26	6	24	108	
Required	350.5839			350.7653			691.0256			631.6329			2024.0077	

Hour 24														
BID	Regulation Down			Regulation Up			Spin Reserve			Non-Spin Reserve			Max. Power (MW)	
	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)	Quantity (MW)	PR (m.u./MW)	PE (m.u./MWh)		
1	19	8	23	38	8	26	24	2	31	78	2	47	140	
2	59	3	34	51	2	40	55	6	26	46	5	36	152	
3	15	4	50	43	6	29	80	6	27	57	2	35	180	
4	12	2	38	35	3	50	69	8	20	33	2	45	137	
5	44	2	37	26	5	38	24	4	45	10	5	45	60	
6	20	3	46	13	4	31	80	2	40	35	5	46	128	
7	39	8	20	60	2	40	41	6	22	22	5	41	123	
8	37	7	29	8	5	42	50	6	26	54	2	44	112	
9	14	5	40	20	2	40	26	5	42	70	6	27	116	
10	36	2	33	31	5	44	25	3	33	53	3	50	109	
11	58	5	49	21	7	22	80	8	24	31	3	40	132	
12	49	6	24	46	4	31	28	7	24	58	6	30	132	
13	15	7	22	36	3	40	37	6	21	27	8	24	100	
14	6	4	34	10	6	23	45	3	43	24	5	44	79	
15	32	4	46	27	8	24	24	2	43	16	2	37	67	
Required	350.2339			350.2476			665.3776			577.3472			1943.2063	