

Frequency Control Contribution Example Calculation

Hour	Western Interconnection Data			Control Area #1					Control Area #2				
	B	C	D	1A	1B	1C	1D	1E	2A	2B	2C	2D	2E
	Frequency Error	Frequency Error Squared	Marginal Cost of Control	Inadvertent	Absolute Inadvertent	Inadvertent Freq Error	$n \times (1 \times \Delta F)$ $\Sigma (\Delta F^2)$	FCC\$ @ \$.1 / 10¢	Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (1 \times \Delta F)$ $\Sigma (\Delta F^2)$	FCC\$ @ \$.1 / 10¢
	ΔF Hz	ΔF^2 Hz ²	\$ / 10¢-Hr \$0.10	I MWh	ABS(I) MWh	I x ΔF MWh / Hz	FCC = -10¢ MWh / Hz	1D x \$ / 10¢ \$	I MWh	ABS(I) MWh	I x ΔF MWh / Hz	FCC = -10¢ MWh / Hz	2D x \$ / 10¢ \$
1	0.010726	0.000115	\$ 11.76	-61	61	-0.654	-7,171.63	-8717.16	-3	3	-0.032	-352.70	-335.27
2	0.008122	0.000066	\$ 8.90	-48	48	-0.390	-4,273.20	-5427.32	29	29	0.236	2,581.72	\$258.17
3	0.006821	0.000047	\$ 7.48	-46	46	-0.314	-3,439.09	-4343.91	-7	7	-0.048	-523.34	-523.33
4	0.004623	0.000021	\$ 5.07	-44	44	-0.203	-2,229.73	-2229.97	-12	12	-0.055	-608.11	-608.11
5	0.016746	0.000280	\$ 18.35	-97	97	-1.624	-17,804.03	-17,804.03	94	94	1.574	17,253.39	\$1,725.34
6	0.016228	0.000263	\$ 17.78	-156	156	-0.254	-2,784.20	-3278.42	-66	66	-1.107	-1,177.93	-1,177.79
7	-0.000082	0.000000	\$ 0.09	-64	64	0.005	57.29	57.29	19	19	0.002	-17.01	-17.01
8	0.002300	0.000009	\$ 3.21	-109	109	-0.319	-3,500.48	-3350.05	-88	88	-0.258	-2,826.07	-2826.61
9	0.007893	0.000062	\$ 8.65	-64	64	-0.505	-5,536.99	-5537.00	3	3	0.024	259.55	\$259.55
10	0.005940	0.000035	\$ 6.51	-62	62	-0.368	-4,036.56	-4036.66	5	5	0.030	325.53	\$325.55
11	0.009928	0.000099	\$ 10.88	-58	58	-0.576	-6,311.57	-6311.16	-9	9	-0.089	-979.38	-979.94
12	0.010905	0.000119	\$ 11.93	-59	59	-0.643	-7,051.98	-7051.20	8	8	0.087	956.20	\$956.62
13	0.017479	0.000306	\$ 19.16	-142	142	-1.306	-14,368.63	-14,436.86	9	9	0.157	1,724.24	\$1,724.42
14	0.010888	0.000119	\$ 11.93	-74	74	-0.806	-8,831.10	-8831.11	-4	4	-0.044	-477.36	-477.74
15	0.011213	0.000126	\$ 12.29	-37	37	-0.415	-4,547.31	-4547.73	8	8	0.090	983.20	\$983.32
16	0.006821	0.000047	\$ 7.48	-81	81	-0.553	-6,055.78	-6055.58	-19	19	-0.130	-1,420.49	-1420.55
17	0.013737	0.000189	\$ 15.06	-109	109	-1.497	-16,411.73	-16,411.73	61	61	1.838	9,184.55	\$9,184.55
18	0.008707	0.000076	\$ 9.54	-157	157	-1.367	-14,982.52	-14,982.52	-26	26	-0.226	-2,481.18	-2481.12
19	0.009197	0.000085	\$ 10.08	-142	142	-1.396	-14,313.71	-14,431.37	16	16	0.147	1,612.81	\$1,612.81
20	0.005533	0.000031	\$ 6.06	-146	146	-0.808	-8,854.68	-8854.47	8	8	0.044	485.19	\$485.52
21	0.008300	0.000069	\$ 9.10	-141	141	-1.170	-12,827.16	-12,827.72	2	2	0.017	181.95	\$181.95
22	0.020590	0.000424	\$ 22.57	-108	108	-2.224	-24,373.25	-24,373.32	-11	11	-0.226	-2,482.46	-2482.25
23	0.012353	0.000153	\$ 13.54	-162	162	-2.001	-21,933.35	-22,193.33	-77	77	-0.951	-10,425.11	-10,425.51
24	0.022522	0.000507	\$ 24.69	-118	118	-2.658	-29,129.41	-29,129.94	-24	24	-0.541	-5,924.63	-5924.46
25	0.002428	0.000006	\$ 2.66	-101	101	-0.245	-2,687.31	-2687.73	31	31	0.075	824.82	\$824.48
26	0.013899	0.000193	\$ 13.23	-93	93	-1.293	-14,167.41	-14,167.41	23	23	0.320	3,593.77	\$3,593.38
27	0.009424	0.000089	\$ 10.33	-67	67	-0.631	-6,920.25	-6920.02	-29	29	-0.273	-2,995.33	-2995.53
28	0.012434	0.000155	\$ 13.63	-70	70	-0.870	-9,540.01	-9540.00	23	23	0.286	3,134.57	\$3,134.46
29	0.009278	0.000086	\$ 10.17	-55	55	-0.510	-5,593.27	-5593.33	-37	37	-0.343	-3,762.75	-3762.77
30	0.002360	0.000006	\$ 2.59	-155	155	-0.366	-4,009.38	-4009.94	15	15	0.035	388.00	\$388.00
31	0.005058	0.000020	\$ 6.62	-88	88	-0.050	-548.17	-554.82	10	10	0.006	62.29	\$62.23
32	0.003418	0.000012	\$ 3.75	-174	174	-0.174	-1,919.24	-1,919.24	2	2	0.007	74.25	\$74.24
33	-0.003337	0.000011	\$ 3.66	-146	146	0.487	5,339.48	5339.95	20	20	0.007	-731.44	-731.44
34	-0.008138	0.000066	\$ 8.92	-148	148	1.204	13,201.72	13,201.72	51	51	1.615	17,549.24	\$17,549.24
35	-0.000977	0.000001	\$ 1.07	-57	57	0.056	610.18	610.02	23	23	0.022	-246.21	-246.62
36	0.000082	0.000000	\$ 0.09	-36	36	-0.003	-33.22	-33.22	23	23	0.002	20.59	\$20.66
37	-0.006510	0.000042	\$ 7.14	-70	70	0.456	4,994.73	4994.47	1	1	0.007	-71.35	-71.14
38	-0.008382	0.000070	\$ 9.19	-57	57	0.478	5,236.47	5236.65	64	64	0.536	5,879.54	\$5,879.25
39	-0.006918	0.000048	\$ 7.58	-77	77	0.533	5,838.83	5838.88	24	24	0.166	-1,819.89	-1819.99
40	-0.007242	0.000052	\$ 7.94	-151	151	1.093	11,985.30	11,985.30	-6	6	0.043	476.24	\$476.62
41	-0.014160	0.000201	\$ 15.52	-133	133	1.883	20,641.83	20,641.84	96	96	1.359	14,899.37	\$14,899.34
42	-0.003825	0.000015	\$ 4.19	-153	153	0.585	6,414.40	6414.44	1	1	-0.004	-41.92	-41.19
43	-0.001872	0.000004	\$ 2.05	-180	180	0.337	3,692.62	3692.66	47	47	0.088	964.18	\$964.42
44	-0.015117	0.000235	\$ 16.57	-158	158	1.588	16,778.87	16,778.87	-1	1	-0.015	-165.69	-165.69
45	-0.002298	0.000009	\$ 3.33	-199	199	0.059	650.93	650.90	-20	20	0.008	65.42	\$65.54
46	0.006294	0.000040	\$ 6.90	-100	100	-0.629	-6,898.32	-6898.83	58	58	0.365	4,001.03	\$4,001.10
47	-0.002442	0.000006	\$ 2.68	-140	140	0.342	3,746.69	3746.67	-62	62	0.151	1,659.25	\$1,659.92
48	-0.004488	0.000020	\$ 5.54	-5	5	0.002	26.76	26.68	32	32	0.016	-171.28	-171.13
49	0.010255	0.000105	\$ 11.24	-93	93	-0.954	-10,453.26	-10,453.33	-39	39	-0.400	-4,383.63	-4383.36
50	0.015218	0.000232	\$ 16.68	-62	62	-0.944	-10,341.70	-10,341.77	3	3	0.046	506.40	\$506.40
51	0.027727	0.000769	\$ 30.39	-60	60	-1.664	-18,234.51	-18,234.51	-37	37	-0.366	-4,044.61	-4044.61
52	0.010320	0.000107	\$ 11.31	-57	57	-0.588	-6,447.38	-6447.74	-4	4	-0.041	-452.45	-452.44
53	-0.003592	0.000013	\$ 3.94	-72	72	0.259	2,834.77	2834.48	-7	7	0.025	275.60	\$275.66
54	0.003077	0.000009	\$ 3.37	-173	173	-0.532	-5,835.13	-5835.51	29	29	0.089	978.14	\$978.11
55	-0.012613	0.000159	\$ 13.82	-83	83	1.047	11,474.70	11,474.47	21	21	0.265	2,903.24	\$2,903.32
56	0.001485	0.000002	\$ 1.61	-186	186	-0.272	-2,996.65	-2996.66	-31	31	-0.045	-497.77	-497.78
57	0.003807	0.000015	\$ 4.28	-206	206	-0.395	-4,820.78	-4820.08	20	20	0.078	856.29	\$856.41
58	-0.006105	0.000037	\$ 6.69	-143	143	0.873	9,568.75	9568.87	-31	31	0.189	2,074.34	\$2,074.33
59	-0.005568	0.000030	\$ 6.62	-180	180	0.102	1,121.27	1121.13	40	40	0.023	-249.17	-249.92
60	0.001302	0.000002	\$ 1.43	-150	150	-0.195	-2,140.05	-2140.01	15	15	0.020	214.01	\$214.40
61	0.001708	0.000003	\$ 1.87	-134	134	-0.229	-2,509.06	-2509.91	-27	27	-0.046	-505.56	-505.56
62	-0.002767	0.000008	\$ 3.03	-165	165	0.457	5,003.50	5003.35	1	1	0.003	-30.32	-30.03
63	0.002767	0.000008	\$ 3.03	-171	171	0.003	3.39	3.39	0	0	0.000	0.00	\$0.00
64	-0.003580	0.000013	\$ 3.92	-122	122	0.437	4,787.14	4787.71	-18	18	0.064	706.30	\$706.63
65	-0.012940	0.000167	\$ 14.18	-150	150	1.941	21,274.47	21,274.45	76	76	0.983	10,779.07	\$10,779.11
66	-0.001708	0.000003	\$ 1.87	-158	158	0.270	2,958.44	2958.84	-13	13	0.022	243.42	\$243.34
67	0.001872	0.000004	\$ 2.05	-187	187	-0.350	-3,836.22	-3836.62	8	8	0.015	164.12	\$164.41
68	0.000977	0.000001	\$ 1.07	-188	188	-0.184	-2,012.51	-2012.25	19	19	0.019	203.39	\$203.34
69	0.006756	0.000046	\$ 7.40	-189	189	-0.277	-3,093.31	-3093.33	-52	52	-0.351	-3,850.01	-3850.31
70	0.014078	0.000198	\$ 15.43	-110	110	-1.549	-16,973.73	-16,973.73	-74	74	-0.142	-1,418.69	-1418.87
71	0.010172	0.000103	\$ 11.15	-161	161	-1.638	-17,949.46	-17,949.95	20	20	0.203	2,229.75	\$2,229.77
72	0.010987	0.000121	\$ 12.04	-139	139	-1.527	-16,738.40	-16,738.84	-23	23	-0.253	-2,769.66	-2769.97
73	0.006267	0.000039	\$ 6.87	-125	125	-0.783	-8,585.78	-8585.58	-10	10	-0.063	-686.86	-686.69
74	0.010172	0.000103	\$ 11.15	-80	80	-0.915	-10,033.86	-10,033.39	-6	6	-0.061	-668.92	-668.89
75	0.004640	0.000022	\$ 5.09	-87	87	-0.408	-4,424.56	-4424.46	2	2	0.009	101.71	\$101.72
76	0.002767	0.000008	\$ 3.03	-104	104	-0.288	-3,153.72	-3153.57	-1	1	-0.002	-30.32	-30.32
77	0.000977	0.000001	\$ 1.07	-67	67	-0.065	-717.22	-717.72	-26	26	-0.025	-278.33	-278.83
78	0.008952	0.000080	\$ 9.81	-154	154	-1.379	-15,109.77	-15,109.98	-74	74	-0.662	-7,260.54	-7260.55
79	0.007877	0.000062	\$ 8.63	-145	145	-1.142	-12,519.38	-12,519.94	4	4	0.032	345.36	\$345.44
80	0.019350	0.000374	\$ 21.21	-183	183	-3.541	-38,812.37	-38,812.24	-59	59	-1.142	-12,513.28	-12,513.33
81	-0.003338	0.000004	\$ 3.57										

117	0.006658	0.000044	\$	7.30	-121	121	-0.806	-8.829.75	-8882.97	42	42	0.280	3.064.87	\$306.49
118	0.012597	0.000159	\$	13.81	-151	151	-1.902	-20.849.40	-20.849.40	65	65	0.819	8.974.91	\$897.49
119	0.015768	0.000249	\$	17.28	-99	99	-1.561	-17.109.89	-17.109.89	21	21	-0.331	-3.629.37	-\$362.94
120	0.030007	0.000900	\$	32.89	-90	90	-2.701	-29.606.12	-29.606.12	25	25	0.750	8.222.26	\$822.23
121	0.007650	0.000059	\$	8.38	-170	170	-1.301	-14.254.23	-14.254.23	52	52	0.398	4.360.12	\$436.01
122	0.005208	0.000027	\$	5.71	-174	174	-0.906	-9.933.02	-9993.30	-13	13	-0.068	-742.12	-\$74.21
123	0.015933	0.000254	\$	17.46	-176	176	-2.804	-30.735.77	-30.735.77	20	20	0.319	3.492.70	\$349.27
124	0.009505	0.000090	\$	10.42	-176	176	-1.673	-18.336.04	-18.336.04	13	13	0.124	1.354.37	\$135.44
125	0.008774	0.000077	\$	9.62	-147	147	-1.290	-14.136.29	-14.136.29	7	7	-0.061	-673.16	-\$67.32
126	0.011458	0.000191	\$	12.56	-138	138	-1.581	-17.336.67	-17.336.67	24	24	0.275	3.014.03	\$301.40
127	0.001790	0.000003	\$	1.96	-129	129	-0.231	-2.547.91	-2523.09	-22	22	-0.039	-431.63	-\$43.16
128	0.005697	0.000032	\$	6.24	-90	90	-0.513	-5.619.49	-5561.95	-17	17	-0.097	-1.061.46	-\$106.15
129	0.011067	0.000122	\$	12.13	-139	139	-1.538	-16.860.28	-16.860.28	-13	13	-0.144	-1.576.86	-\$157.69
130	0.001385	0.000002	\$	1.52	-33	33	-0.046	-500.95	-500.95	-8	8	-0.011	-121.44	-\$12.14
131	0.009277	0.000086	\$	10.17	-118	118	-1.095	-11.997.96	-11.997.96	-3	3	-0.028	-305.03	-\$30.50
132	0.010742	0.000115	\$	11.77	-40	40	-0.430	-4.708.39	-5470.94	-23	23	-0.247	-2.707.90	-\$270.79
133	0.015770	0.000249	\$	17.28	-110	110	-0.662	-7.259.67	-7259.65	-1	1	-0.016	-172.85	-\$17.28
134	0.008529	0.000073	\$	9.35	-10	10	-0.085	-934.81	-893.48	-15	15	-0.128	-1.402.21	-\$140.22
135	0.003649	0.000013	\$	4.00	-82	82	-0.299	-3.279.41	-3327.94	34	34	0.124	1.359.75	\$135.98
136	0.005112	0.000026	\$	5.60	-118	118	-0.603	-6.611.12	-6661.11	-17	17	-0.087	-952.45	-\$95.24
137	0.000488	0.000000	\$	0.54	-142	142	-0.069	-760.04	-776.00	-0.13	26	-0.013	-139.16	-\$13.92
138	-0.000162	0.000000	\$	0.18	-90	90	0.015	159.48	\$15.95	25	25	-0.004	-44.30	-\$4.43
139	0.003309	0.000002	\$	1.48	-41	41	-0.053	-584.95	-558.59	17	17	0.022	242.54	\$24.25
140	0.001628	0.000003	\$	1.78	-58	58	-0.094	-1.035.15	-1033.52	0	0	0.000	0.00	\$0.00
141	-0.003175	0.000010	\$	3.48	-82	82	0.260	2.853.59	\$285.36	23	23	-0.073	-800.40	-\$80.04
142	0.011963	0.000143	\$	13.11	-111	111	-1.328	-14.554.87	-14.554.87	-48	48	-0.574	-6.294.00	-\$629.40
143	0.000407	0.000000	\$	0.45	-97	97	-0.039	-432.36	-443.24	15	15	0.006	66.86	\$6.69
144	-0.004313	0.000019	\$	4.73	-81	81	0.349	3.629.41	\$362.94	58	58	-0.250	-2.742.04	-\$274.20
145	0.019857	0.000394	\$	21.76	-57	57	-1.132	-12.405.51	-12.405.51	-45	45	-0.993	-10.882.02	-\$1088.20
146	0.015707	0.000247	\$	17.22	-57	57	-0.895	-9.812.78	-9881.28	-32	32	-0.503	-5.508.93	-\$550.89
147	0.008952	0.000080	\$	9.81	-95	95	-0.850	-9.320.96	-9932.10	-9	9	-0.081	-883.04	-\$88.30
148	0.013329	0.000178	\$	14.61	-131	131	-1.746	-19.138.09	-19.138.09	-19	19	-0.253	-2.775.75	-\$277.58
149	0.014144	0.000200	\$	15.50	-164	164	-2.320	-25.423.64	-25.423.64	-9	9	-0.127	-1.395.20	-\$139.52
150	0.004787	0.000023	\$	5.25	-179	179	-0.857	-9.391.31	-9399.13	-17	17	-0.081	-891.91	-\$89.19
151	-0.000196	0.000038	\$	6.79	-153	153	0.948	10.390.34	\$1039.09	14	14	-0.087	-950.90	-\$95.08
152	-0.010335	0.000107	\$	11.33	-102	102	1.054	11.554.31	\$1155.43	32	32	-0.331	-3.624.88	-\$362.49
153	-0.013183	0.000174	\$	14.45	-116	116	1.529	16.761.64	\$1676.16	26	26	-0.343	-3.756.92	-\$375.69
154	-0.010662	0.000114	\$	11.69	-128	128	1.365	14.957.82	\$1495.78	26	26	-0.277	-3.038.31	-\$303.83
155	-0.009335	0.000087	\$	10.23	-81	81	0.756	8.287.48	\$828.75	27	27	-0.252	-2.762.49	-\$276.25
156	-0.013324	0.000178	\$	14.60	-38	38	0.506	5.549.65	\$554.97	43	43	-0.573	-6.279.87	-\$627.99
157	-0.005922	0.000031	\$	6.13	-98	98	0.546	6.006.43	\$600.64	11	11	-0.062	-674.19	-\$67.42
158	-0.015197	0.000231	\$	16.66	-89	89	-1.132	-12.405.51	-12.405.51	20	20	-0.304	-3.331.30	-\$331.30
159	-0.005778	0.000033	\$	6.33	-112	112	0.647	7.093.39	\$709.34	21	21	-0.211	-1.330.01	-\$133.00
160	-0.002440	0.000006	\$	2.67	-149	149	0.364	3.984.83	\$398.48	11	11	-0.027	-294.18	-\$29.42
161	-0.012697	0.000161	\$	13.92	-42	42	0.533	5.844.84	\$584.84	51	51	-0.648	-7.097.30	-\$709.73
162	-0.004150	0.000017	\$	4.55	-49	49	0.203	2.228.83	\$222.88	-28	28	0.116	1.273.62	\$127.36
163	-0.002442	0.000006	\$	2.68	-173	173	0.422	4.629.84	\$462.98	10	10	-0.024	-267.62	-\$26.76
164	-0.002360	0.000006	\$	2.59	-141	141	0.333	3.647.24	\$364.72	-5	5	0.012	129.33	\$12.93
165	-0.005347	0.000029	\$	5.86	-128	128	0.674	7.384.08	\$738.41	6	6	-0.032	-351.62	-\$35.16
166	0.009226	0.000085	\$	10.11	-96	96	-0.886	-9.708.16	-9970.82	-58	58	-0.535	-5.865.35	-\$586.53
167	0.004150	0.000017	\$	4.55	-100	100	-0.415	-4.548.64	-4548.86	-1	1	-0.004	-45.49	-\$4.55
168	0.010417	0.000109	\$	11.42	-90	90	-0.938	-10.275.54	-10.275.54	-26	26	-0.271	-2.968.49	-\$296.85
169	0.010325	0.000015	\$	4.19	-147	147	-0.562	-6.162.86	-6162.29	-15	15	0.057	628.96	\$62.89
170	0.010010	0.000100	\$	10.97	-181	181	-1.269	-13.905.55	-13.905.55	-10	10	-0.812	-9.067.15	-\$906.75
171	0.005697	0.000032	\$	6.24	-191	191	-1.088	-11.925.80	-11.925.80	-2	2	-0.011	-124.88	-\$12.49
172	0.009113	0.000083	\$	9.99	-208	208	-1.896	-20.776.57	-20.776.57	-19	19	-0.173	-1.897.86	-\$189.79
173	0.009360	0.000088	\$	10.26	-149	149	-1.395	-15.286.05	-15.286.05	12	12	0.112	1.231.09	\$123.11
174	0.001872	0.000004	\$	2.05	-188	188	-0.352	-3.856.73	-3856.67	-28	28	-0.052	-574.41	-\$57.44
175	-0.002942	0.000009	\$	3.22	-159	159	0.468	5.127.73	\$512.77	32	32	-0.094	-1.031.99	-\$103.20
176	-0.007009	0.000019	\$	7.68	-181	181	1.269	13.905.55	\$1390.55	-18	18	-0.126	-1.382.87	-\$138.27
177	0.003322	0.000011	\$	3.64	-145	145	-0.482	-5.279.96	-5279.06	45	45	0.150	1.638.61	\$163.86
178	-0.017497	0.000306	\$	19.18	-152	152	2.659	29.149.57	\$2914.96	81	81	-1.417	-15.533.65	-\$1553.37
179	-0.016927	0.000287	\$	18.55	-42	42	0.711	7.792.09	\$779.21	78	78	-1.320	-14.471.03	-\$1447.10
180	-0.010719	0.000115	\$	11.75	-98	98	1.050	11.513.21	\$1151.32	39	39	-0.418	-4.581.79	-\$458.18
181	-0.011779	0.000139	\$	12.91	-127	127	1.496	16.396.18	\$1639.62	49	49	-0.577	-6.326.09	-\$632.61
182	-0.013588	0.000158	\$	14.87	-118	118	1.901	17.547.96	\$1754.80	46	46	-0.624	-6.840.73	-\$684.07
183	-0.008441	0.000071	\$	9.25	-136	136	1.148	12.582.70	\$1258.27	23	23	-0.194	-2.127.96	-\$212.80
184	-0.002256	0.000041	\$	25.49	-149	149	3.465	37.980.10	\$3798.01	54	54	-1.256	-13.764.60	-\$1376.46
185	-0.010417	0.000109	\$	11.42	-166	166	1.729	18.952.66	\$1895.27	54	54	-0.563	-6.165.32	-\$616.53
186	-0.010010	0.000100	\$	10.97	-181	181	1.812	19.858.48	\$1985.85	29	29	-0.290	-3.181.74	-\$318.17
187	-0.015055	0.000227	\$	16.50	-170	170	2.559	28.051.94	\$2805.19	74	74	-1.114	-12.210.85	-\$1221.08
188	-0.011061	0.000122	\$	12.12	-162	162	1.792	19.639.59	\$1963.96	48	48	-0.531	-5.819.14	-\$581.91
189	-0.009471	0.000113	\$	10.38	-183	183	1.833	18.996.32	\$1899.69	61	61	-0.578	-6.332.31	-\$632.31
190	-0.005265	0.000028	\$	5.77	2	2	-0.011	-115.42	-115.42	39	39	-0.205	-2.250.63	-\$225.06
191	0.008736	0.000076	\$	9.58	-67	67	-0.585	-6.415.53	-6415.55	-16	16	-0.140	-1.532.07	-\$153.21
192	0.008302	0.000069	\$	9.10	-80	80	-0.664	-7.279.28	-7279.93	-16	16	-0.133	-1.455.86	-\$145.59
193	0.005858	0.000034	\$	6.43	-93	93	-0.545	-5.971.59	-5971.16	16	16	0.094	1.027.37	\$102.74
194	0.004313	0.000019	\$	4.73	-109	109	-0.470	-5.153.15	-5153.32	6	6	0.026	283.86	\$28.37
195	0.008348	0.000076	\$	9.36	-105	105	-0.904	-9.804.04	-9804.04	-14	14	-0.089	-874.14	-\$87.41
196	0.004638	0.000022	\$	5.08	-170	170	-0.789	-8.642.59	-8642.26	7	7	0.032	355.87	\$35.59
197	0.006496	0.000042	\$	7.12	-141	141	-0.916	-10.038.45	-10.038.45	6	6	0.039	427.21	\$42.72
198	0.001939	0.000004	\$	2.13	-192	192								

245	-0.017423	0.000304	\$	19.10	-139	139	2.422	26,543.56	\$2,654.36	58	58	-1.011	-11,075.73	-\$1,107.57
246	-0.022135	0.000490	\$	24.26	-131	131	2.900	31,782.21	\$3,178.22	107	107	-2.368	-25,959.52	-\$2,595.95
247	0.003662	0.000013	\$	4.01	-122	122	-0.447	-4,896.34	-\$489.63	-54	54	-0.198	-2,167.23	-\$216.72
248	0.002523	0.000006	\$	2.77	-184	184	-0.464	-5,088.92	-\$508.89	-24	24	-0.051	-663.77	-\$66.38
249	0.001628	0.000003	\$	1.78	-170	170	-0.277	-3,034.07	-\$303.41	1	1	0.002	17.85	\$1.78
250	-0.004070	0.000017	\$	4.46	-168	168	0.684	7,494.40	\$749.44	45	45	-0.183	-2,007.43	-\$200.74
251	-0.002442	0.000006	\$	2.68	-129	129	0.315	3,452.31	\$345.23	8	8	-0.020	-214.10	-\$21.41
252	0.000108	0.000000	\$	0.12	-101	101	-0.011	-119.96	-\$12.00	26	26	0.003	30.88	\$3.09
253	-0.000055	0.000000	\$	0.06	-133	133	0.007	80.21	\$8.02	-31	31	0.002	18.69	\$1.87
254	0.001465	0.000002	\$	1.61	-180	180	-0.264	-2,890.30	-\$289.03	14	14	0.021	224.80	\$22.48
255	0.004802	0.000023	\$	5.26	-164	164	-0.787	-8,631.16	-\$863.12	-12	12	-0.058	-631.55	-\$63.15
256	0.003092	0.000010	\$	3.39	-124	124	-0.383	-4,201.92	-\$420.19	-29	29	-0.090	-982.71	-\$98.27
257	0.003662	0.000013	\$	4.01	-126	126	-0.461	-5,056.88	-\$505.69	45	45	0.165	1,806.03	\$180.60
258	0.003255	0.000011	\$	3.57	-65	65	-0.212	-2,318.98	-\$231.90	-70	70	-0.228	-2,497.37	-\$249.74
259	-0.003905	0.000015	\$	4.28	-150	150	0.586	6,420.16	\$642.02	28	28	-0.109	-1,198.43	-\$119.84
260	-0.004152	0.000017	\$	4.55	-181	181	0.751	8,236.34	\$823.63	-11	11	0.046	500.55	\$50.06
261	-0.001872	0.000004	\$	2.05	-122	122	0.238	2,502.77	\$250.28	55	55	-0.103	-1,128.30	-\$112.83
262	0.010987	0.000121	\$	12.04	-121	121	-1.329	-14,570.84	-\$1,457.08	-51	51	-0.560	-6,141.43	-\$614.14
263	-0.000162	0.000000	\$	0.18	-167	167	0.027	295.92	\$29.59	-32	32	0.005	56.70	\$5.67
264	0.004475	0.000020	\$	4.90	-89	89	-0.398	-4,365.32	-\$436.53	27	27	0.121	1,324.31	\$132.43
	0.003018	264	\$	8.32	-33,273	33,277		-951,522.45		2,614	7,776		-357,981.26	
	$\Sigma(\Delta F^2) \Rightarrow$	0.024086				$\Sigma(I \times \Delta F) \Rightarrow$	-86.415	CA Total \$ \Rightarrow	-\$95,152.24		$\Sigma(I \times \Delta F) \Rightarrow$	-32,782	CA Total \$ \Rightarrow	-\$35,798.13
		0.000091						Cost / MWh \Rightarrow	\$ 2.86				Cost / MWh \Rightarrow	\$ 13.69
		0.009552						Cost / MWh \Rightarrow	\$ 2.86				Cost / MWh \Rightarrow	\$ 4.60

Control Area #3					Control Area #4					Control Area #5				
3A	3B	3C	3D	3E	4A	4B	4C	4D	4E	5A	5B	5C	5D	5E
Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (I \times \Delta F) \sum (\Delta F^2)$	FCCS @ \$.1 / 10¢	Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (I \times \Delta F) \sum (\Delta F^2)$	FCCS @ \$.1 / 10¢	Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (I \times \Delta F) \sum (\Delta F^2)$	FCCS @ \$.1 / 10¢
I	ABS (I)	I x ΔF	FCC = -10¢	3D x \$ / 10¢	I	ABS (I)	I x ΔF	FCC = -10¢	4D x \$ / 10¢	I	ABS (I)	I x ΔF	FCC = -10¢	5D x \$ / 10¢
MWh	MWh	MWh - Hz	MWh - Hz	\$	MWh	MWh	MWh - Hz	MWh - Hz	\$	MWh	MWh	MWh - Hz	MWh - Hz	\$
-114	114	-1.223	-13,402.73	-1,340.27	724	724	7.766	85,119.07	\$8,511.91	134	134	1.437	15,754.08	\$1,575.41
66	66	0.536	5,875.65	\$587.56	473	473	3.842	42,108.82	\$4,210.88	75	75	0.609	6,676.87	\$667.69
90	90	0.614	6,728.65	\$672.86	220	220	1.501	16,447.80	\$1,644.78	71	71	0.484	5,308.15	\$530.82
95	95	0.439	4,814.20	\$481.42	41	41	0.190	2,077.71	\$207.77	63	63	0.291	3,192.57	\$319.26
8	8	0.134	1,468.37	\$146.84	31	31	0.519	5,689.95	\$568.99	159	159	2.663	29,183.92	\$2,918.39
-120	120	-0.195	-2,141.70	-214.17	77	77	0.125	1,374.25	\$137.43	441	441	0.718	7,870.73	\$787.07
-448	448	-0.827	-9,011.21	-901.12	414	414	-0.204	-2,210.58	-221.06	387	387	-0.032	-346.41	-34.64
-384	384	-1.125	-12,331.96	-1,233.20	979	979	2.868	31,440.08	\$3,144.01	304	304	0.891	9,762.80	\$976.28
-246	246	-1.942	-21,282.80	-2,128.28	1,008	1,008	7.956	87,207.58	\$8,720.76	203	203	1.602	17,562.64	\$1,756.26
-284	284	-1.687	-18,490.05	-1,849.00	921	921	5.471	59,962.45	\$5,996.24	186	186	1.105	12,109.68	\$1,210.97
-417	417	-4.140	-45,378.03	-4,537.80	755	755	7.496	82,159.27	\$8,215.93	356	356	3.534	38,740.00	\$3,874.00
-361	361	-3.337	-35,148.54	-3,514.85	759	759	5.277	57,910.52	\$5,791.05	383	383	4.177	45,778.10	\$4,578.11
-287	287	-5.017	-54,983.97	-5,498.40	881	881	15.399	168,783.54	\$16,878.35	337	337	5.890	64,563.06	\$6,456.31
-216	216	-2.552	-27,577.26	-2,757.73	938	938	10.213	111,940.12	\$11,194.01	312	312	3.397	37,233.81	\$3,723.38
-40	40	-0.449	-4,916.01	-491.60	880	880	9.867	108,152.13	\$10,815.21	147	147	1.648	18,066.32	\$1,806.63
62	62	0.423	4,635.29	\$463.53	698	698	4.761	52,184.39	\$5,218.44	11	11	0.075	822.39	\$82.24
-135	135	-1.855	-20,326.46	-2,032.65	536	536	7.363	80,703.57	\$8,070.36	102	102	1.401	15,357.77	\$1,535.78
-72	72	-0.627	-6,870.96	-687.10	409	409	3.561	39,030.89	\$3,903.09	135	135	1.175	12,883.06	\$1,288.31
-31	31	-0.285	-3,124.82	-312.48	449	449	4.139	45,259.53	\$4,525.95	335	335	3.081	33,768.25	\$3,376.25
36	36	0.199	2,183.35	\$218.33	671	671	3.713	40,695.15	\$4,069.51	404	404	2.235	24,502.00	\$2,450.20
16	16	0.133	1,455.56	\$145.56	921	921	7.644	83,785.91	\$8,378.59	425	425	3.528	38,663.42	\$3,866.34
-331	331	-6.815	-74,699.49	-7,469.95	1,075	1,075	22.134	242,604.07	\$24,260.41	346	346	7.124	78,084.66	\$7,808.47
88	88	1.087	11,914.41	\$1,191.44	913	913	11.278	123,612.01	\$12,361.20	524	524	6.473	70,944.90	\$7,094.49
-141	141	-3.176	-34,807.18	-3,480.72	779	779	17.545	192,303.50	\$19,230.35	384	384	8.649	94,794.02	\$9,479.40
-128	128	-0.311	-3,495.71	-349.57	695	695	1.687	18,491.92	\$1,849.19	383	383	0.930	10,190.51	\$1,019.05
-332	332	-4.614	-50,778.13	-5,077.81	540	540	7.505	82,263.38	\$8,226.34	383	383	5.323	58,845.64	\$5,884.56
-140	140	-1.319	-14,460.22	-1,446.02	676	676	6.570	69,822.19	\$6,982.22	348	348	3.279	35,943.97	\$3,594.40
-143	143	-1.719	-19,488.88	-1,948.89	711	711	8.841	96,899.24	\$9,689.92	366	366	4.551	49,880.62	\$4,988.06
-74	74	-0.687	-7,525.49	-752.55	648	648	6.012	65,899.91	\$6,589.89	327	327	3.034	33,254.54	\$3,325.45
-94	94	-0.222	-2,431.49	-243.15	449	449	1.060	11,614.26	\$1,161.43	290	290	0.684	7,501.42	\$750.14
-258	258	-0.147	-1,607.15	-160.71	309	309	0.176	1,924.84	\$192.48	241	241	0.137	1,501.25	\$150.13
-386	386	-1.319	-14,462.22	-1,446.22	472	472	1.613	17,984.37	\$1,798.44	278	278	0.950	10,548.24	\$1,054.82
-340	340	-1.134	-12,434.41	-1,243.44	662	662	-2.209	-24,210.52	-2,421.05	299	299	-0.998	-10,934.96	-1,093.50
-261	261	-2.124	-23,281.41	-2,328.14	649	649	-5.689	-62,351.36	-6,235.14	372	372	-3.027	-33,182.70	-3,318.27
-102	102	-0.100	-1,091.89	-109.19	899	899	-0.823	-9,024.17	-902.42	416	416	-0.406	-4,453.21	-445.32
-192	192	-0.016	-171.86	-17.19	927	927	0.076	829.77	\$82.98	319	319	0.026	285.54	\$28.55
-256	256	1.667	18,266.45	\$1,826.65	928	928	-0.041	-46,215.89	-4,621.59	225	225	-1.465	-16,054.50	-1,605.45
-401	401	3.261	36,639.02	\$3,663.90	838	838	-7.024	-76,985.28	-7,698.53	133	133	-1.115	-12,216.43	-1,221.64
-383	383	2.650	29,042.47	\$2,904.25	709	709	-4.905	-53,762.69	-5,376.27	96	96	-0.664	-7,278.57	-727.86
-348	348	2.520	27,621.74	\$2,762.17	605	605	-4.381	-48,020.56	-4,802.06	90	90	-0.652	-7,143.55	-714.36
-519	519	7.349	80,549.69	\$8,054.97	510	510	-7.222	-79,152.88	-7,915.29	214	214	-3.030	-33,213.17	-3,321.32
-600	600	2.295	25,154.52	\$2,515.45	534	534	-2.043	-22,387.52	-2,238.75	231	231	-0.884	-9,684.49	-968.45
-548	548	1.026	11,241.97	\$1,124.20	659	659	-1.233	-13,519.08	-1,351.91	312	312	-0.584	-6,400.54	-640.05
-549	549	90.862	\$9,086.26	\$908.63	801	801	-13.208	-142,108.00	-14,210.80	417	417	-6.304	-69,091.80	-6,909.18
-482	482	0.144	1,576.63	\$157.66	990	990	-0.295	-3,238.31	-323.83	397	397	-0.118	-1,298.59	-129.86
-700	700	-4.406	-48,288.27	-4,828.83	1,053	1,053	6.627	72,639.35	\$7,263.93	994	994	2.480	27,179.40	\$2,717.94
-251	251	0.613	6,717.28	\$671.73	910	910	-2.222	-24,353.48	-2,435.35	563	563	-1.375	-15,067.04	-1,506.70
-275	275	0.134	1,471.91	\$147.19	862	862	-0.421	-4,613.78	-461.38	282	282	-0.138	-1,509.38	-150.94
-99	99	-1.015	-11,127.67	-1,112.77	832	832	8.532	93,517.37	\$9,351.74	126	126	1.292	14,162.49	\$1,416.25
-132	132	-2.009	-22,017.82	-2,201.78	605	605	3.207	35,091.50	\$3,509.15	184	184	2.800	30,691.51	\$3,069.15
-45	45	-1.248	-13,775.98	-1,377.60	433	433	5.206	57,159.24	\$5,715.92	185	185	1.360	14,901.13	\$1,490.11
27	27	0.279	3,054.02	\$305.40	359	359	3.705	40,607.19	\$4,060.72	107	107	1.104	12,102.98	\$1,210.30
-12	12	0.043	472.46	\$47.25	162	162	-0.582	-6,378.24	-637.82	127	127	-0.556	-6,000.22	-600.02
-90	90	-0.277	-3,035.62	-303.56	53	53	0.163	1,787.64	\$178.76	394	394	1.412	13,289.26	\$1,328.93
-427	427	5.386	59,032.48	\$5,903.25	249	249	-3.141	-34,420.49	-3,442.41	276	276	-3.481	-38,156.83	-3,815.68
-370	370	-0.542	-5,941.18	-594.12	592	592	0.867	9,505.89	\$950.59	324	324	0.475	5,202.55	\$520.25
-350	350	-1.567	-17,086.76	-1,708.68	809	809	3.800	41,640.52	\$4,164.05	348	348	1.360	14,901.13	\$1,490.11
-185	185	-1.129	-12,379.15	-1,237.91	830	830	-5.067	-55,538.87	-5,553.89	350	350	-2.137	-23,420.01	-2,342.00
-200	200	0.114	1,245.85	\$124.59	846	846	-0.481	-5,269.95	-527.00	345	345	-0.196	-2,149.09	-214.91
-362	362	-0.471	-5,164.66	-516.47	895	895	1.165	12,768.98	\$1,276.90	281	281	0.366	4,009.03	\$400.90
-310	310	-0.530	-5,804.54	-580.45	831	831	1.420	15,559.90	\$1,555.99	241	241	0.412	4,512.56	\$451.26
-220	220	0.609	6,671.34	\$667.13	803	803	-2.222	-24,350.38	-2,435.04	224	224	-0.620	-6,792.63	-679.26
-318	318	-0.809	-8,643.11	-864.31	714	714	7.244	79,467.07	\$7,946.71	195	195	1.947	21,347.10	\$2,134.71
-267	267	0.956	10,476.77	\$1,047.68	704	704	-2.520	-27,624.15	-2,762.42	116	116	-0.415	-4,551.71	-455.17
-424	424	5.487	60,135.84	\$6,013.58	708	708	-9.162	-100,415.51	-10,041.55	273	273	-3.533	-38,719.54	-3,871.95
-263	263	0.449	4,924.49	\$492.45	687	687	-1.174	-12,863.60	-1,286.36	169	169	-0.289	-3,164.41	-316.44
-332	332	-0.621	-6,810.83	-681.08	779	779	1.458	15,980.83	\$1,598.08	367	367	0.687	7,528.84	\$752.88
-362	362	-0.354	-3,875.15	-387.51	916	916	0.895	9,805.62	\$980.56	400	400	0.391	4,281.93	\$428.19
-461	461	-3.114	-34,131.83	-3,413.18	1,056	1,056	7.133	79,184.84	\$7,918.48	394	394	2.866	31,121.24	\$3,112.24
-458	458	-6.448	-70,672.43	-7,067.24	1,087	1,087	15.303	167,731.28	\$16,773.13	324	324	4.561	49,995.34	\$4,999.53
-266	266	-2.706	-29,655.62	-2,965.56	943	943	5.922	65,132.52	\$6,513.25	456	456	4.638	50,838.21	\$5,083.82
-216	216	-2.373	-26,010.76	-2,601.08	853	853	9.372	102,718.40	\$10,271.84	157	157	1.725	18,905.97	\$1,890.60
-49	49	-0.307	-3,365.63	-336.56	596	596	3.735	40,937.01	\$4,093.70					

-264	254	-1.691	-18,535.17	-1,853.52	824	824	5.486	60,129.84	\$6,012.98	339	339	2.257	24,737.88	\$2,473.79
-324	324	-4.082	-44,736.45	-4,473.65	823	823	10.368	113,636.12	\$11,363.61	248	248	3.124	34,242.72	\$3,424.27
89	89	1.403	15,381.62	\$1,538.16	688	688	10,848	118,905.10	\$11,890.51	316	316	4.983	54,613.39	\$5,461.34
25	25	0.750	8,222.26	\$822.23	529	529	15,874	173,982.28	\$17,398.29	196	196	2.881	34,462.49	\$3,442.45
188	188	1.438	15,763.50	\$1,576.35	365	365	2,792	30,604.66	\$3,060.47	197	197	1.507	16,518.13	\$1,651.81
135	135	0.703	7,706.65	\$770.67	320	320	1.667	18,267.62	\$1,826.76	220	220	1.146	12,558.99	\$1,258.90
166	166	2.645	28,989.42	\$2,898.94	238	238	3.792	41,563.15	\$4,156.31	165	165	2.629	28,814.79	\$2,881.48
158	158	1.502	16,460.77	\$1,646.08	167	167	1.587	17,398.41	\$1,739.84	137	137	1.302	14,272.94	\$1,427.29
46	46	0.404	4,423.60	\$442.36	55	55	0.483	5,289.09	\$528.91	183	183	1.606	17,598.24	\$1,759.82
146	146	1.673	18,335.35	\$1,833.53	163	163	0.057	627.92	\$62.79	228	228	2.612	28,633.29	\$2,863.33
-242	242	-0.433	-4,477.90	-\$474.79	159	158	0.283	3,099.87	\$309.99	153	153	0.274	3,001.77	\$300.18
-219	219	-1.248	-13,674.08	-1,367.41	328	328	1.869	20,479.90	\$2,047.99	256	256	1.458	15,994.32	\$1,594.63
-113	113	-1.251	-13,706.56	-1,370.66	541	541	5.987	65,621.68	\$6,562.17	258	258	2.855	31,294.63	\$3,129.46
-202	202	-0.280	-3,066.44	-\$306.64	661	661	0.915	10,034.24	\$1,003.42	238	238	0.330	3,612.93	\$361.29
-188	188	-1.744	-19,115.39	-1,911.54	651	651	6.039	66,192.11	\$6,619.21	243	243	2.254	24,707.65	\$2,470.77
-118	118	-1.268	-13,892.71	-1,389.27	542	542	5.822	63,912.28	\$6,391.23	207	207	2.224	24,371.11	\$2,437.11
-432	432	-0.811	-7,469.32	-\$746.92	497	497	0.738	85,939.18	\$8,590.42	316	316	4.983	54,613.39	\$5,461.34
-426	426	-3.633	-39,822.83	-3,982.28	494	494	4.213	46,179.52	\$4,617.95	966	966	3.122	34,213.98	\$3,421.40
-417	417	-1.522	-16,676.99	-1,667.70	663	663	2.419	26,515.21	\$2,651.52	372	372	1.357	14,877.31	\$1,487.73
-373	373	-1.907	-20,897.85	-2,089.79	844	844	4.314	47,286.29	\$4,728.63	310	310	1.585	17,368.19	\$1,736.82
-469	469	-0.229	-2,510.28	-\$251.03	837	837	0.409	4,479.97	\$447.99	137	137	0.067	733.28	\$73.33
-116	116	0.019	205.55	\$20.55	739	739	-0.119	-1,309.48	-\$130.95	185	185	-0.030	-327.81	-\$32.78
-106	106	-0.136	-1,512.36	-\$151.23	566	566	0.037	8,075.13	\$807.50	236	236	0.307	3,347.32	\$334.72
-415	415	-0.676	-7,406.70	-\$740.67	659	659	1.073	11,761.48	\$1,176.15	359	359	0.585	6,407.24	\$640.72
-167	167	0.530	5,811.57	\$581.16	858	858	-2.724	-29,858.25	-\$2,985.82	402	402	-1.276	-13,989.53	-1,398.95
-343	343	-4.103	-44,975.87	-4,497.59	953	953	11.401	124,962.12	\$12,496.21	233	233	2.780	30,552.12	\$3,052.21
15	15	0.006	66.86	\$6.69	1,004	1,004	0.408	4,475.13	\$447.51	185	185	0.075	824.60	\$82.46
130	130	-0.561	-6,145.96	-\$614.60	707	707	-3.050	-33,424.56	-\$3,342.46	85	85	-0.367	-4,018.51	-\$401.85
175	175	3.475	38,067.08	\$3,806.71	235	235	2.466	27,145.51	\$2,714.55	164	164	3.256	35,893.03	\$3,589.30
135	135	2.120	23,240.80	\$2,324.08	34	34	0.534	5,853.24	\$585.32	227	227	2.565	39,078.97	\$3,907.90
3	3	0.293	3,237.81	\$323.78	146	146	1.307	14,324.85	\$1,432.48	299	299	2.677	29,336.50	\$2,933.65
9	9	0.120	1,314.83	\$131.48	456	456	6.078	66,618.08	\$6,661.81	256	256	3.412	37,399.63	\$3,739.96
18	18	0.255	2,790.40	\$279.04	579	579	8.189	89,757.84	\$8,975.78	235	235	3.324	36,430.21	\$3,643.02
-10	10	-0.448	-5,244.65	-\$524.47	552	552	2.642	29,960.91	\$2,996.09	304	304	1.455	15,949.48	\$1,594.95
190	190	1.177	12,983.78	\$1,298.38	545	545	-3.377	-37,013.47	-\$3,701.32	293	293	-1.809	-19,293.07	-1,929.31
-116	116	-1.199	-13,140.19	-1,314.02	637	637	-8.583	-92,157.78	-\$9,215.78	275	275	-2.842	-31,151.32	-3,115.13
-156	156	2.057	22,541.52	\$2,254.15	629	629	-8.292	-90,888.55	-\$9,088.55	350	350	-6.141	-50,573.91	-5,057.39
-61	61	0.650	7,128.34	\$712.83	564	564	-5.907	-64,739.32	-\$6,473.93	349	349	-4.724	-40,783.44	-4,078.34
122	122	-1.139	-12,482.37	-1,248.24	601	601	-5.610	-61,491.04	-\$6,149.10	282	282	-2.632	-28,852.70	-2,885.27
-121	121	-1.612	-17,671.27	-1,767.13	648	648	-8.634	-94,636.21	-\$9,463.62	351	351	-4.677	-51,261.28	-5,126.13
130	130	-0.727	-7,967.71	-\$796.77	658	658	-4.879	-49,328.85	-\$4,932.89	477	477	-2.667	-29,235.36	-2,923.56
189	189	2.872	31,490.77	\$3,149.08	735	735	-11.474	-125,756.50	-\$12,576.50	372	372	-5.651	-61,962.14	-6,196.21
205	205	-1.185	-12,983.44	-1,298.34	790	790	-4.565	-50,033.74	-\$5,003.74	296	296	-1.070	-11,746.82	-1,174.68
88	88	-0.215	-2,353.45	-\$235.35	711	711	-1.735	-19,014.84	-\$1,901.48	235	235	-0.573	-6,284.79	-628.48
-152	152	0.122	1,669.95	\$167.00	640	640	-8.126	-89,064.16	-\$8,906.42	237	237	-3.009	-32,981.57	-3,298.16
-99	99	0.411	4,503.15	\$450.32	656	656	-2.722	-29,839.07	-\$2,983.91	347	347	-1.440	-15,783.77	-1,578.77
-149	149	0.364	3,987.55	\$398.75	692	692	-1.690	-16,519.35	-\$1,651.94	323	323	-0.789	-8,644.15	-864.15
185	185	0.982	10,735.39	\$1,073.54	779	779	-1.838	-20,103.26	-\$2,010.32	389	389	-0.911	-10,036.22	-1,003.62
37	37	-0.198	-2,168.34	-\$216.83	778	778	-4.160	-45,593.77	-\$4,559.38	316	316	-1.690	-18,518.81	-1,851.88
-55	55	-0.507	-5,561.97	-\$556.20	804	804	7.418	81,305.86	\$8,130.59	306	306	2.823	30,944.77	\$3,094.48
-26	26	-0.108	-1,182.65	-\$118.26	681	681	2.826	30,976.22	\$3,097.62	483	483	2.004	21,969.92	\$2,196.99
51	51	0.531	5,822.80	\$582.28	612	612	6.375	69,873.66	\$6,987.37	471	471	4.906	53,775.31	\$5,375.31
141	141	0.539	5,911.31	\$591.13	612	612	2.341	25,657.61	\$2,565.76	324	324	1.239	13,583.44	\$1,358.34
98	98	0.654	7,085.49	\$708.55	601	601	4.616	49,838.32	\$4,983.32	236	236	2.361	25,826.81	\$2,582.81
100	100	0.570	6,243.87	\$624.39	596	596	3.395	37,213.49	\$3,721.35	254	254	2.447	15,859.44	\$1,585.94
55	55	0.501	5,493.80	\$549.38	537	537	4.894	53,639.51	\$5,363.95	157	157	1.431	15,682.32	\$1,568.23
123	123	1.151	12,618.69	\$1,261.87	423	423	3.959	43,395.98	\$4,339.60	18	18	0.168	1,846.64	\$184.66
232	232	0.434	4,759.37	\$475.94	221	221	0.414	4,533.71	\$453.37	7	7	0.013	143.60	\$14.36
-51	51	0.150	1,644.74	\$164.47	37	37	-0.109	-1,193.24	-\$119.32	69	69	-0.203	-2,225.24	-222.52
-105	105	-0.736	-8,066.78	-\$806.68	92	92	-0.645	-7,068.61	-\$706.80	285	285	-2.285	-25,044.36	-2,504.36
154	154	0.512	5,607.68	\$560.77	446	446	1.482	16,240.43	\$1,624.04	427	427	1.419	15,548.57	\$1,554.86
60	60	-1.050	-11,506.41	-1,150.64	909	909	-15.904	-174,322.11	-\$17,432.21	430	430	-7.524	-82,462.61	-8,246.26
71	71	-1.202	-13,172.34	-1,317.23	1,053	1,053	-17.824	-195,358.85	-\$19,535.88	451	451	-7.634	-83,672.21	-8,367.22
-50	50	0.536	5,874.09	\$587.41	1,096	1,096	-11.748	-128,759.96	-\$12,876.00	426	426	-4.566	-50,047.21	-5,004.72
202	202	-2.379	-26,078.97	-2,607.90	1,093	1,093	-12.874	-141,110.45	-\$14,111.05	284	284	-3.345	-36,665.48	-3,665.55
179	179	-2.429	-26,619.36	-2,661.94	1,065	1,065	-14.450	-158,877.77	-\$15,877.77	191	191	-2.591	-28,403.89	-2,840.89
102	102	-1.367	-14,988.21	-1,498.82	881	881	-7.437	-81,498.82	-\$8,149.82	109	109	-0.920	-10,084.90	-1,008.47
281	281	-6.535	-71,626.91	-7,162.69	617	617	-14.349	-157,273.32	-\$15,727.33	102	102	-2.372	-25,999.80	-2,599.98
326	326	-3.396	-37,220.28	-3,722.03	409	409	-4.260	-46,696.61	-\$4,669.66	135	135	-1.406	-15,413.31	-1,541.33
206	206	-2.062	-22,601.36	-2,260.14	341	341	-3.413	-37,412.93	-\$3,741.29	165	165	-1.652	-18,103.03	-1,810.30
301	301	-4.532	-49,668.44	-4,966.84	428	428	-6.444	-70,624.89	-\$7,062.49	366	366	-5.510	-60,394.18	-6,039.42
92	92	-1.018	-11,153.35	-1,115.33	605	605	-6.692	-73,345.39	-\$7,334.54	418	418	-4.223	-50,674.99	-5,067.50
44	44	-0.417	-4,587.67	-\$458.76	917	917	-8.685	-95,192.22	-\$9,519.22	414	414	-3.912	-42,877.84	-4,287.84
182	182	-0.958	-10,502.93	-1,050.29	1,032	1,032	-5.434	-59,555.07	-\$5,955.51	401	401	-4.611	-52,311.07	-5,231.11
369	369	3.224	35,333.31	\$3,533.33	999	999	8.728	95,658.47	\$9,565.85	372	372	3.250	35,620.57	\$3,562.06
346	346	2.872	31,482.90	\$3,148.29	810	810	6.724	73,702.73	\$7,370.27	195	195	1.619	17,743.25	\$1,774.33
159	159	0.931	10,209.50	\$1,020										

-3	3	0.052	572.88	\$57.29	35	35	-0.610	-6,683.63	\$668.36	70	70	-1.220	-13,367.26	\$1,336.73
12	12	-0.266	-2,911.35	-\$291.13	-98	98	2.169	23,776.00	\$2,377.60	488	488	-10.802	-118,394.80	\$11,839.48
-556	556	-2.036	-22,314.49	-\$2,231.45	325	325	1.190	13,043.54	\$1,304.35	321	321	1.175	12,883.00	\$1,288.30
-429	429	-1.083	-11,864.93	-\$1,186.49	852	852	2.150	23,563.92	\$2,356.39	223	223	0.563	6,167.55	\$616.76
-765	765	-1.246	-13,653.31	-\$1,365.33	912	912	1.485	16,276.89	\$1,627.89	278	278	0.453	4,961.60	\$496.16
-834	834	3.394	37,204.35	\$3,720.44	840	840	-3.419	-37,472.01	-\$3,747.20	305	305	-1.241	-13,605.91	\$1,360.59
-419	419	1.023	11,213.31	\$1,121.33	781	781	-1.907	-20,901.17	-\$2,090.12	428	428	-1.045	-11,454.16	\$1,145.42
-515	515	-0.056	-611.70	-\$61.17	839	839	0.091	996.54	\$99.65	404	404	0.044	479.86	\$47.99
-455	455	0.025	274.39	\$27.44	977	977	-0.054	-589.19	-\$58.92	402	402	-0.022	-242.43	-\$24.24
-596	596	-0.873	-9,570.12	-\$957.01	1,054	1,054	1.544	16,924.33	\$1,692.43	334	334	0.489	5,363.12	\$536.31
-565	565	-2.713	-29,735.40	-\$2,973.54	1,017	1,017	4.883	53,523.71	\$5,352.37	217	217	1.042	11,420.50	\$1,142.05
-385	385	-1.190	-13,046.28	-\$1,304.63	877	877	2.711	29,718.41	\$2,971.84	218	218	0.674	7,387.24	\$738.72
-574	574	-2.102	-23,036.90	-\$2,303.69	738	738	2.702	29,618.87	\$2,961.89	288	288	1.055	11,558.58	\$1,155.86
-668	668	-2.174	-23,832.01	-\$2,383.20	651	651	2.119	23,225.51	\$2,322.55	397	397	1.292	14,163.64	\$1,416.36
-631	631	2.464	27,007.46	\$2,700.75	836	836	-3.265	-35,781.67	-\$3,578.17	418	418	-1.632	-17,890.83	\$1,789.08
-971	971	4.031	44,185.01	\$4,418.50	1,054	1,054	-4.376	-47,961.90	-\$4,796.19	443	443	-1.839	-20,158.56	\$2,015.86
-1,002	1,002	1.875	20,555.57	\$2,055.56	1,091	1,091	-2.042	-22,381.36	-\$2,238.14	420	420	-0.786	-8,616.11	\$861.61
-810	810	-8.899	-97,540.34	-\$9,754.03	1,106	1,106	12.151	133,184.70	\$13,318.47	378	378	4.153	45,518.82	\$4,551.88
-373	373	0.060	660.94	\$66.09	998	998	-0.161	-1,768.42	-\$176.84	461	461	-0.075	-816.87	-\$81.69
-488	488	-2.184	-23,935.70	-\$2,393.57	831	831	3.719	40,759.36	\$4,075.94	388	388	1.736	19,030.84	\$1,903.08
-41,361	60,945		-850,904.32		180,188	181,708		5,857,247.25		75,255	75,945		2,308,699.33	
	$\Sigma(I \times \Delta F) \Rightarrow$	-75.449	CA Total \$ \Rightarrow	-\$85,090.43		$\Sigma(I \times \Delta F) \Rightarrow$	530.674	CA Total \$ \Rightarrow	\$585,724.73		$\Sigma(I \times \Delta F) \Rightarrow$	208.900	CA Total \$ \Rightarrow	\$230,869.93
			Cost / MWh \Rightarrow \$	2.06				Cost / MWh \Rightarrow \$	3.25				Cost / MWh \Rightarrow \$	3.07
			Cost / MWh \Rightarrow \$	1.40				Cost / MWh \Rightarrow \$	3.22				Cost / MWh \Rightarrow \$	3.04

Control Area #6						Control Area #7						Control Area #8					
6A	6B	6C	6D	6E		7A	7B	7C	7D	7E		8A	8B	8C	8D	8E	
Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (I \times \Delta F) / (\Delta F \wedge 2)$	FCC\$ @ \$.1 / 10\$	FCC\$ @ 6D x \$ / 10\$	Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (I \times \Delta F) / (\Delta F \wedge 2)$	FCC\$ @ \$.1 / 10\$	FCC\$ @ 7D x \$ / 10\$	Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (I \times \Delta F) / (\Delta F \wedge 2)$	FCC\$ @ \$.1 / 10\$	FCC\$ @ 8D x \$ / 10\$
I	ABS(I)	I x ΔF	FCC = -10\$	6D x \$ / 10\$	\$	I	ABS(I)	I x ΔF	FCC = -10\$	7D x \$ / 10\$	\$	I	ABS(I)	I x ΔF	FCC = -10\$	8D x \$ / 10\$	\$
MWh	MWh	MWh / Hz	MWh / Hz	MWh / Hz	\$	MWh	MWh	MWh / Hz	MWh / Hz	MWh / Hz	\$	MWh	MWh	MWh / Hz	MWh / Hz	MWh / Hz	\$
28	28	-0.300	-3,291.90	-3,291.19		184	184	1.974	21,632.47	\$2,163.25		18	18	0.193	2,116.22	\$211.62	
-29	-29	-0.236	-2,581.72	-2,581.17		472	472	3.834	42,019.80	\$4,201.98		11	11	0.089	979.27	\$97.93	
-25	25	-0.171	-1,869.07	-1,869.11		604	604	4.120	45,156.70	\$4,515.67		5	5	0.034	373.81	\$37.38	
-27	27	-0.125	-1,368.25	-1,368.82		696	696	3.218	35,270.34	\$3,527.03		11	11	0.051	557.43	\$55.74	
-41	41	-0.687	-7,525.41	-7,525.54		821	821	13.749	150,691.84	\$15,069.18		9	9	0.151	1,651.92	\$165.19	
16	16	0.026	285.56	285.56		1,068	1,068	1.739	19,061.09	\$1,906.11		-7	7	-0.111	-124.93	-\$12.49	
4	4	0.000	-3.58	-3.58		914	914	-0.075	-819.23	-\$81.92		13	13	-0.001	-11.64	-\$1.16	
8	8	0.023	256.92	256.92		661	661	1.937	21,227.67	\$2,122.77		5	5	0.015	160.57	\$16.06	
-4	4	-0.032	-346.06	-346.61		609	609	4.807	52,687.91	\$5,268.79		4	4	0.032	346.06	\$34.61	
-3	3	-0.018	-195.32	-195.53		294	294	1.746	19,141.11	\$1,914.11		-4	4	-0.024	-260.42	-\$26.04	
3	3	0.030	326.46	326.65		271	271	2.691	29,490.28	\$2,949.03		2	2	0.020	217.64	\$21.76	
-4	4	-0.044	-478.10	-478.11		161	161	1.756	19,243.53	\$1,924.35		7	7	0.076	836.68	\$83.67	
-1	1	-0.017	-191.58	-191.16		7	7	0.076	836.68	\$83.67		5	5	0.087	957.91	\$95.79	
-8	8	-0.090	-983.20	-983.32		62	62	0.695	7,619.81	\$761.98		0	0	0.000	0.00	\$0.00	
-15	15	-0.102	-1,121.44	-1,121.14		391	391	2.667	29,232.23	\$2,923.22		4	4	0.045	491.60	\$49.16	
78	78	1.071	11,744.18	\$1,174.42		936	936	12.858	140,930.12	\$14,093.01		4	4	0.055	602.27	\$60.23	
-2	2	-0.017	-190.86	-190.09		1,307	1,307	11.380	124,727.09	\$12,472.71		4	4	0.035	381.72	\$38.17	
-8	8	-0.076	-806.41	-806.64		1,192	1,192	10.962	120,154.48	\$12,015.45		-2	2	-0.018	-210.60	-\$21.06	
-13	13	-0.072	-788.43	-788.84		709	709	3.923	42,999.79	\$4,299.98		2	2	0.011	121.30	\$12.13	
54	54	0.448	4,912.53	\$491.25		389	389	3.229	35,388.40	\$3,538.84		7	7	0.058	636.81	\$63.68	
67	67	1.380	15,120.44	\$1,512.04		-12	12	-0.247	-2,708.14	-\$270.81		10	10	0.206	2,256.78	\$225.68	
-5	5	-0.062	-676.96	-676.70		90	90	1.112	12,185.19	\$1,218.52		-1	1	-0.012	-135.39	-\$13.54	
-8	8	-0.180	-1,974.88	-1,974.49		122	122	2.748	30,116.85	\$3,011.69		7	7	0.158	1,728.02	\$172.80	
-31	31	-0.075	-824.82	-824.48		154	154	0.374	4,097.49	\$409.75		11	11	0.027	292.68	\$29.27	
-31	31	-0.431	-4,722.47	-4,722.25		375	375	5.212	57,126.65	\$5,712.67		8	8	0.111	1,218.70	\$121.87	
-28	28	-0.264	-2,892.04	-2,892.20		350	350	3.298	36,150.54	\$3,615.05		6	6	0.057	619.72	\$61.97	
-34	34	-0.423	-4,633.72	-4,633.37		396	396	4.924	53,969.20	\$5,396.92		4	4	0.050	545.14	\$54.51	
-32	32	-0.297	-3,254.27	-3,254.43		646	646	5.994	66,695.52	\$6,669.55		6	6	0.056	610.18	\$61.02	
-27	27	-0.064	-698.41	-698.84		982	982	2.318	25,401.35	\$2,540.13		9	9	0.021	232.80	\$23.28	
4	4	0.002	24.92	\$2.49		1,109	1,109	0.630	6,908.25	\$690.82		-25	25	-0.014	-155.73	-\$15.57	
4	4	0.046	500.41	\$50.04		1,266	1,266	4.238	47,143.09	\$4,714.31		4	4	0.014	149.87	\$14.99	
7	7	0.023	256.00	\$25.60		830	830	-2.769	-30,354.58	-\$3,035.46		-17	17	-0.057	-621.72	-\$62.17	
8	8	-0.065	-713.61	-713.36		667	667	-5.428	-59,496.93	-\$5,949.69		-7	7	-0.057	-624.41	-\$62.44	
0	0	0.000	0.00	\$0.00		356	356	-0.348	-3,810.92	-\$381.09		-5	5	-0.005	-53.52	-\$5.35	
3	3	0.000	2.69	\$0.27		34	34	0.003	30.43	\$3.04		-20	20	-0.002	-17.90	-\$1.79	
8	8	-0.052	-570.83	-570.88		203	203	-1.322	-14,484.73	-\$1,448.47		-1	1	0.007	71.35	\$7.14	
20	20	-0.168	-1,837.36	-1,837.74		507	507	-4.260	-46,577.01	-\$4,657.70		-13	13	-0.109	-1,194.28	-\$119.43	
3	3	-0.021	-227.49	-227.75		641	641	-4.435	-48,606.33	-\$4,860.63		7	7	0.048	530.80	\$53.08	
9	9	-0.065	-714.36	-714.44		765	765	-5.540	-60,720.21	-\$6,072.02		-12	12	-0.087	-952.47	-\$95.25	
20	20	-0.283	-3,104.03	-3,104.40		1,171	1,171	-16.581	-181,741.21	-\$18,174.12		-6	6	0.085	931.21	\$93.12	
7	7	-0.027	-293.47	-293.35		1,427	1,427	-5.458	-59,825.82	-\$5,982.58		5	5	-0.019	-209.62	-\$20.96	
5	5	-0.009	-102.57	-102.26		1,306	1,306	-2.444	-26,791.99	-\$2,679.20		10	10	-0.019	-205.15	-\$20.51	
9	9	0.016	1,491.19	\$149.12		1,072	1,072	-16.005	-177,617.29	-\$17,761.73		9	9	0.136	1,491.19	\$149.12	
7	7	0.002	22.90	\$2.29		827	827	-0.247	-2,705.13	-\$270.51		-12	12	-0.004	-39.25	-\$3.93	
61	61	0.384	4,207.98	\$420.80		549	549	3.455	37,871.80	\$3,787.18		-18	18	-0.113	-1,241.70	-\$124.17	
-3	3	0.007	80.29	\$8.03		433	433	-1.057	-11,587.97	-\$1,158.80		-14	14	-0.034	-374.67	-\$37.47	
-9	9	0.004	48.17	\$4.82		305	305	-0.149	-1,632.49	-\$163.25		-21	21	-0.010	-112.40	-\$11.24	
19	19	0.195	2,135.61	\$213.56		195	195	2.000	21,918.13	\$2,191.81		13	13	-0.133	-1,461.21	-\$146.12	
-21	21	-0.320	-3,502.83	-3,502.28		365	365	5.555	60,882.61	\$6,088.26		-26	26	-0.396	-4,336.84	-\$433.68	
2	2	0.055	607.82	\$60.78		433	433	12.006	132,006.32	\$13,200.63		9	9	0.250	2,721.18	\$272.12	
-1	1	-0.010	-113.11	-113.11		671	671	6.925	75,898.13	\$7,589.81		-8	8	-0.083	-904.90	-\$90.49	
-23	23	-0.083	-905.55	-905.56		971	971	-3.488	-38,230.06	-\$3,823.01		-1	1	0.004	39.37	\$3.94	
-20	20	-0.062	-674.58	-674.46		1,300	1,300	4.001	43,847.80	\$4,384.78		-8	8	-0.025	-269.83	-\$26.98	
5	5	-0.063	-691.25	-691.12		1,347	1,347	-16.990	-186,221.90	-\$18,622.19		-1	1	0.013	138.25	\$13.82	
8	8	0.012	128.46	\$12.85		1,147	1,147	1.680	18,417.65	\$1,841.77		-6	6	-0.009	-96.34	-\$9.63	
3	3	0.017	128.46	\$12.85		878	878	3.430	37,506.35	\$3,750.64		20	20	0.078	850.59	\$85.06	
7	7	-0.043	-468.40	-468.84		699	699	-4.267	-46,773.10	-\$4,677.31		-4	4	-0.024	-267.66	-\$26.77	
2	2	-0.001	-12.46	-12.25		696	696	-0.396	-4,335.56	-\$433.56		3	3	0.002	-18.69	-\$1.87	
0	0	0.000	0.00	\$0.00		510	510	0.664	7,276.18	\$727.62		-6	6	-0.008	-85.60	-\$8.56	
8	8	0.014	149.79	\$14.98		591	591	1.010	11,066.07	\$1,106.61		6	6	0.010	112.63	\$11.26	
17	17	-0.047	-515.51	-515.55		665	665	-1.895	-20,772.11	-\$2,077.21		-9	9	-0.025	-272.92	-\$27.29	
-2	2	-0.005	-60.85	-60.85		757	757	2.084	22,855.46	\$2,285.55		12	12	-0.033	-363.39	-\$36.34	
6	6	-0.021	-235.43	-235.54		785	785	-2.810	-30,802.50	-\$3,080.25		-10	10	-0.036	-392.39	-\$39.24	
11	11	-0.142	-1,560.13	-1,560.01		913	913	-11.814	-129,490.63	-\$12,949.06		-1	1	0.013	141.83	\$14.18	
4	4	-0.007	-74.90	-74.49		1,352	1,352	-2.310	-25,315.27	-\$2,531.53		-4	4	-0.007	-74.90	-\$7.49	
-2	2	-0.004	-41.03	-41.10		1,030	1,030	1.928	21,129.98	\$2,113.00		-1	1	-0.002	-20.51	-\$2.05	
-20	20	-0.020	-214.10	-214.41		934	934	0.912	9,998.31	\$999.83		-5	5	-0.005	-53.52	-\$5.35	
27	27	0.182	1,999.04	\$199.90		556	556	3.756	41,116.50	\$4,116.55		-11	11	-0.074	-811.55	-\$81.16	
29	29	0.408	4,474.89	\$447.49		519	519	7.307	80,085.13	\$8,008.51		2	2	0.028	308.61	\$30.86	
23	23	0.234	2,564.21	\$256.42		520	520	5.289	57,973.40	\$5,797.34		-13	13	-0.132	-1,449.33	-\$144.93	
-35	35	-0.385	-4,214.71	-4,214.47		561	561	6.164	67,555.71	\$6,755.77		-3	3	-0.033	-361.26	-\$36.13	
-25	25	-0.157	-1,717.16	-1,717.72		433	433	2.713	29,741.15	\$2,974.12		-7	7	-0.044	-480.80	-\$48.0	

-17	17	-0.113	-1,240.54	-124.05	870	870	5.792	63,486.61	\$6,348.66	-17	17	-0.113	-1,240.54	-124.05
-20	20	-0.252	-2,761.51	-276.15	910	910	11.464	125,648.68	\$12,564.87	-2	2	-0.025	-276.15	-27.62
-35	35	-0.552	-6,048.95	-604.90	1,109	1,109	17.487	191,665.34	\$19,166.53	-35	35	-0.552	-6,048.95	-604.90
-28	28	-0.840	-9,208.93	-920.89	1,280	1,280	38.409	420,879.50	\$42,087.95	-19	19	-0.570	-6,248.91	-624.89
-29	29	-0.222	-2,431.60	-243.16	1,157	1,157	8.851	97,012.58	\$9,701.26	-7	7	-0.054	-243.16	-24.32
-25	25	-0.130	-1,427.16	-142.72	1,147	1,147	5.974	65,478.01	\$6,547.80	-7	7	-0.036	-399.60	-39.96
-3	3	-0.048	-523.91	-52.39	1,216	1,216	19.375	212,356.24	\$21,235.62	0	0	0.000	0.00	\$0.00
-25	25	-0.238	-2,604.55	-260.46	1,203	1,203	11.435	125,331.03	\$12,533.10	-5	5	-0.048	-520.91	-52.09
-32	32	-0.281	-3,077.29	-307.73	1,361	1,361	11.941	130,880.92	\$13,088.09	-6	6	-0.053	-576.99	-57.70
-30	30	-0.344	-3,767.54	-376.75	1,375	1,375	15.755	172,676.81	\$17,267.88	-2	2	-0.023	-251.17	-25.12
-20	20	-0.036	-382.39	-38.24	1,279	1,279	2.289	25,093.26	\$2,509.32	-4	4	-0.007	-78.48	-7.85
-4	4	-0.023	-249.75	-24.98	1,237	1,237	7.047	77,236.71	\$7,723.67	-7	7	-0.040	-437.07	-43.71
-14	14	-0.155	-1,698.16	-169.82	1,157	1,157	12.804	140,340.64	\$14,034.06	-12	12	-0.133	-1,455.56	-145.56
5	5	0.007	75.90	\$7.59	1,120	1,120	1.551	17,002.04	\$1,700.20	-2	2	-0.003	-30.36	-3.04
-8	8	-0.074	-813.42	-81.34	1,145	1,145	10.622	116,420.84	\$11,642.08	-23	23	-0.213	-2,338.58	-233.86
1	1	0.016	706.41	\$70.64	984	984	10.570	115,851.07	\$11,585.11	-6	6	-0.064	-706.41	-70.64
-4	4	-0.034	-373.92	-37.39	910	910	14.350	157,289.35	\$15,728.93	-11	11	-0.173	-1,901.30	-190.13
-1	1	-0.004	-39.99	-4.00	638	638	5.441	59,640.76	\$5,964.08	-10	10	-0.085	-934.81	-93.48
-4	4	-0.020	-224.11	-22.41	375	375	1.368	14,997.29	\$1,499.73	-8	8	-0.029	-319.94	-31.99
2	2	0.001	10.70	\$1.07	294	294	1.503	16,471.76	\$1,647.18	-7	7	-0.036	-392.18	-39.22
2	2	0.000	-3.54	-\$0.35	518	518	0.253	2,772.55	\$277.26	-13	13	-0.006	-69.58	-6.96
-4	4	-0.056	-571.61	-57.16	672	672	-0.109	-1,190.76	-\$119.08	-12	12	0.002	21.26	\$2.13
0	0	0.000	0.00	\$0.00	546	546	0.711	7,779.79	\$778.98	-8	8	-0.019	-214.14	-21.41
3	3	-0.010	-104.40	-10.44	302	302	0.492	5,389.94	\$538.99	-22	22	-0.036	-392.64	-39.26
-14	14	-0.167	-1,835.75	-183.57	596	596	-1.892	-20,740.69	-\$2,074.07	-19	19	-0.060	-661.20	-66.12
-19	19	-0.008	-84.69	-8.47	706	706	8.446	92,574.25	\$9,257.42	-16	16	-0.191	-2,098.00	-209.80
-27	27	0.116	1,276.47	\$127.65	815	815	0.331	3,632.70	\$363.27	-44	44	-0.018	-196.12	-19.62
-27	27	-0.715	-7,835.06	-783.51	794	794	-3.425	-37,537.63	-\$3,753.76	-26	26	0.112	1,229.19	\$122.92
-27	27	-0.424	-4,648.16	-464.82	544	544	10.802	113,396.41	\$11,339.64	-8	8	-0.159	-1,714.12	-171.41
-28	28	-0.430	-4,709.54	-470.95	501	501	7.869	86,249.19	\$8,624.92	-19	19	-0.298	-3,270.93	-327.09
-30	30	-0.400	-4,382.77	-438.28	581	581	5.201	57,005.05	\$5,700.50	-17	17	-0.152	-1,667.96	-166.80
-36	36	-0.509	-5,580.80	-558.08	337	337	4.492	49,233.10	\$4,923.31	-7	7	-0.093	-1,022.65	-102.26
-17	17	-0.081	-891.91	-89.19	340	340	4.809	52,707.54	\$5,270.75	-22	22	-0.211	-3,410.49	-341.05
-14	14	-0.064	-706.41	-70.64	775	775	3.710	40,660.69	\$4,066.07	-15	15	-0.072	-786.98	-78.70
42	42	0.434	4,757.66	\$475.77	739	739	-4.579	-50,188.90	-\$5,018.89	14	14	-0.087	-959.85	-95.99
-11	11	0.145	1,589.47	\$158.95	827	827	-8.547	-93,680.51	-\$9,368.05	3	3	0.021	339.83	\$33.98
-18	18	0.192	2,103.44	\$210.34	960	960	-12.656	-138,717.02	-\$13,871.70	-1	1	0.013	144.50	\$14.45
-7	7	0.065	716.20	\$71.62	903	903	-8.429	-92,390.03	-\$9,239.00	9	9	-0.096	-1,051.72	-105.17
-25	25	0.333	3,651.09	\$365.11	736	736	-8.807	-107,488.04	-\$10,748.04	0	0	0.000	0.00	\$0.00
4	4	-0.022	-245.16	-24.52	602	602	-3.366	-36,896.61	-\$3,689.66	8	8	-0.107	-1,168.35	-116.83
-22	22	0.334	3,664.43	\$366.44	602	602	-3.366	-36,896.61	-\$3,689.66	-4	4	0.022	245.16	\$24.52
-35	35	0.202	2,216.68	\$221.67	306	306	-1.768	-19,380.16	-\$1,938.02	-30	30	0.456	4,996.85	\$499.69
-8	8	0.020	213.95	\$21.40	495	495	-1.208	-13,238.18	-\$1,323.82	3	3	-0.017	-190.00	-19.00
-13	13	0.165	1,809.12	\$180.91	552	552	-7.009	-76,817.84	-\$7,681.78	-5	5	0.005	53.49	\$5.35
-20	20	0.083	909.73	\$90.97	822	822	-3.411	-37,389.80	-\$3,738.98	18	18	-0.075	-818.75	-81.88
-20	20	0.049	535.24	\$53.52	1,015	1,015	-2.478	-27,163.50	-\$2,716.35	-6	6	0.015	160.57	\$16.06
-24	24	0.057	602.81	\$60.28	1,130	1,130	-2.867	-32,929.56	-\$3,292.96	-8	8	-0.019	-206.919	-20.69
-23	23	0.123	1,347.89	\$134.79	1,105	1,105	-5.908	-64,757.22	-\$6,475.72	6	6	-0.032	-351.62	-35.16
-26	26	-0.240	-2,629.29	-262.93	865	865	7.981	87,474.59	\$8,747.46	-8	8	-0.074	-809.01	-80.90
-20	20	-0.083	-909.73	-90.97	323	323	1.340	14,692.10	\$1,469.21	-35	35	-0.145	-1,592.02	-159.20
-36	36	-0.375	-4,110.22	-411.02	155	155	1.615	17,696.76	\$1,769.68	-18	18	-0.188	-2,055.11	-205.51
-20	20	-0.077	-838.48	-83.85	216	216	0.826	9,055.63	\$905.56	-7	7	-0.027	-293.47	-29.35
-13	13	-0.120	-1,426.30	-142.63	222	222	-1.229	-12,075.65	-\$1,207.56	0	0	0.000	0.00	\$0.00
-31	31	-0.177	-1,935.60	-193.56	482	482	2.746	30,095.47	\$3,009.55	-7	7	-0.040	-437.07	-43.71
-16	16	-0.146	-1,598.20	-159.82	831	831	7.573	83,006.40	\$8,300.64	-14	14	-0.128	-1,398.42	-139.84
-3	3	-0.028	-307.77	-30.78	1,202	1,202	11.251	123,314.34	\$12,331.43	20	20	0.187	2,051.82	\$205.18
6	6	0.011	123.09	\$12.31	1,500	1,500	2.808	30,771.81	\$3,077.18	-10	10	-0.119	-205.15	-20.51
19	19	-0.056	-612.75	-61.27	1,747	1,747	-5.140	-56,340.48	-\$5,634.05	24	24	-0.071	-774.00	-77.40
8	8	-0.061	-661.61	-66.16	1,602	1,602	-1.229	-12,075.65	-\$1,207.56	5	5	-0.035	-389.13	-38.91
6	6	0.020	218.48	\$21.85	923	923	3.066	33,609.68	\$3,360.97	-12	12	-0.040	-436.96	-43.70
13	13	-0.227	-2,493.06	-249.31	668	668	-11.688	-128,104.70	-\$12,810.47	6	6	-0.105	-1,150.64	-115.06
13	13	-0.220	-2,411.84	-241.18	628	628	-10.630	-116,510.31	-\$11,651.03	-12	12	0.023	226.31	\$22.63
4	4	-0.043	-469.93	-46.99	513	513	-5.499	-60,268.12	-\$6,026.81	3	3	-0.032	-352.44	-35.24
10	10	-0.118	-1,291.04	-129.10	590	590	-6.950	-76,171.24	-\$7,617.12	-2	2	0.024	258.21	\$25.82
19	19	-0.258	-2,825.52	-282.55	627	627	-8.507	-93,242.10	-\$9,324.21	-4	4	-0.054	-595.85	-59.59
24	24	-0.203	-2,220.48	-222.05	828	828	-6.989	-76,006.42	-\$7,600.64	-11	11	0.029	310.77	\$31.08
0	0	0.000	0.00	\$0.00	1,028	1,028	-23.907	-262,037.23	-\$26,203.72	9	9	-0.209	-2,294.10	-229.41
-20	20	-0.208	-2,283.45	-228.35	1,420	1,420	-14.792	-162,125.15	-\$16,212.51	44	44	-0.458	-5,023.60	-502.36
-22	22	0.220	2,413.74	\$241.37	1,643	1,643	-16.446	-180,262.30	-\$18,026.23	5	5	-0.050	-548.58	-54.86
-17	17	0.256	2,805.19	\$280.52	1,264	1,264	-19.030	-208,574.45	-\$20,857.45	2	2	0.030	-330.02	-33.00
-83	83	0.918	10,062.26	\$1,006.23	778	778	-8.605	-94,318.53	-\$9,431.85	8	8	-0.088	-960.86	-96.09
-33	33	0.313	3,425.67	\$342.57	796	796	-7.539	-82,631.43	-\$8,263.14	3	3	0.028	311.14	\$31.14
4	4	-0.021	-230.83	-23.08	228	228	-1.200	-13,157.52	-\$1,315.75	-3	3	0.016	173.13	\$17.13
1	1	0.009	95.75	\$9.58	99	99	0.865	9,479.67	\$947.97	-42	42	-0.367	-4,021.68	-402.17
-10	10	-0.083	-909.91	-90.99	51	51	0.423	4,640.54	\$464.05	14	14	0.116	1,273.87	\$127.39
2	2	0.012	128.42	\$12.84	369	369	2.162	23,693.75	\$2,369.37	-10	10	-0.102	-642.11	-64.21
2	2	0.009	94.55	\$9.46	349	349	1.505	16,499.54	\$1,649.95	4	4	0.019	189.11	\$18.91
-1	1	-0.009	-94.55	-\$9.46	447	447	2.638	28,110.29	\$2,811.03	-4	4	-0.032	-349.80	-34.98
-4	4	-0.019	-203.36	-20.34	648	648	3.006	32,943.54	\$3,294.35	6	6	0.028	305.03	\$30.50
-7	7	-0.045	-498.41	-49.84	765	765	4.970	54,469.33	\$5,446.93	6	6	0.039	427.21	\$42.72
-1	1	-0.002	-21.26	-\$2.13	1,040	1,040	2.017	22,106.71	\$2,210.67	28	28	0.054	595.18	\$59.52
2	2	0.019	203.00	\$20.30	1,161	1,161	10.751	117,838.74	\$11,783.87	17	17	0.157	1,725.46	\$172.55
6	6	0.012	128											

15	15	-0.261	-2,864.41	-\$286.44	1,396	1,396	-24.322	-266,581.32	-\$26,658.13	-1	1	0.017	190.96	\$19.10
31	31	-0.686	-7,520.98	-\$752.10	1,378	1,378	-30.502	-334,319.74	-\$33,431.97	16	16	-0.354	-3,881.80	-\$388.18
26	26	0.095	1,043.48	\$104.35	1,292	1,292	4.731	51,853.08	\$5,185.31	4	4	0.015	160.54	\$16.05
7	7	0.018	193.60	\$19.36	1,082	1,082	2.730	29,925.07	\$2,992.51	-16	16	-0.040	-442.51	-\$44.25
1	1	0.002	17.85	\$1.78	846	846	1.378	15,098.96	\$1,509.90	4	4	0.007	71.39	\$7.14
3	3	-0.012	-133.83	-\$13.38	931	931	-3.789	-41,531.48	-\$4,153.15	7	7	-0.028	-312.27	-\$31.23
1	1	-0.002	-26.76	-\$2.68	899	899	-2.195	-24,059.10	-\$2,405.91	3	3	-0.007	-80.29	-\$8.03
4	4	0.000	4.75	\$0.48	935	935	0.101	1,110.56	\$111.06	-9	9	-0.001	-10.69	-\$1.07
-17	17	0.001	10.25	\$1.03	893	893	-0.049	-538.53	-\$53.85	-33	33	0.002	19.90	\$1.99
-20	20	-0.029	-321.14	-\$32.11	930	930	1.362	14,933.23	\$1,493.32	15	15	0.022	240.86	\$24.09
-3	3	-0.014	-157.89	-\$15.79	961	961	4.614	50,576.48	\$5,057.65	5	5	0.024	263.15	\$26.31
9	9	0.028	304.98	\$30.50	959	959	2.965	32,497.10	\$3,249.71	-9	9	-0.028	-304.98	-\$30.50
2	2	0.007	80.27	\$8.03	848	848	3.105	34,033.60	\$3,403.36	7	7	0.026	280.94	\$28.09
40	40	0.130	1,427.07	\$142.71	872	872	2.838	31,110.05	\$3,111.01	2	2	0.007	71.35	\$7.14
2	2	-0.008	-85.60	-\$8.56	701	701	-2.737	-30,003.53	-\$3,000.35	1	1	-0.004	-42.80	-\$4.28
-72	72	0.299	3,276.33	\$327.63	532	532	-2.209	-24,208.47	-\$2,420.85	8	8	-0.033	-364.04	-\$36.40
-10	10	0.019	205.15	\$20.51	653	653	-1.222	-13,395.99	-\$1,339.60	9	9	-0.017	-184.63	-\$18.46
13	13	0.143	1,565.46	\$156.55	338	338	3.713	40,702.02	\$4,070.20	-1	1	-0.011	-120.42	-\$12.04
6	6	-0.001	-10.63	-\$1.06	268	268	-0.043	-474.89	-\$47.49	-4	4	0.001	7.09	\$0.71
-7	7	-0.031	-343.34	-\$34.33	494	494	2.211	24,229.99	\$2,423.00	2	2	0.009	98.10	\$9.81
-2,010	4,530		-157,693.10		205,680	205,704		4,372,606.44		-836	2,706		-64,907.83	
	$\Sigma (I \times \Delta F) \Rightarrow$	-14.356	CA Total \$ \Rightarrow	-\$15,769.31		$\Sigma (I \times \Delta F) \Rightarrow$	396.729	CA Total \$ \Rightarrow	\$437,260.64		$\Sigma (I \times \Delta F) \Rightarrow$	-5.931	CA Total \$ \Rightarrow	-\$6,490.78
			Cost / MWh \Rightarrow \$	7.85				Cost / MWh \Rightarrow \$	2.13				Cost / MWh \Rightarrow \$	7.76
			Cost / MWh \Rightarrow \$	3.48				Cost / MWh \Rightarrow \$	2.13				Cost / MWh \Rightarrow \$	2.40

Control Area #9						Control Area #10						Control Area #11					
9A	9B	9C	9D	9E		10A	10B	10C	10D	10E		11A	11B	11C	11D	11E	
Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (I \times \Delta F) \sum (\Delta F^2)$	FCCS @ \$.1 / 10¢	FCCS @ \$.1 / 10¢	Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (I \times \Delta F) \sum (\Delta F^2)$	FCCS @ \$.1 / 10¢	FCCS @ \$.1 / 10¢	Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (I \times \Delta F) \sum (\Delta F^2)$	FCCS @ \$.1 / 10¢	
I	ABS (I)	I x ΔF	FCC = -10¢	9D x \$ / 10¢	\$	I	ABS (I)	I x ΔF	FCC = -10¢	10D x \$ / 10¢	\$	I	ABS (I)	I x ΔF	FCC = -10¢	11D x \$ / 10¢	
MWh	MWh	MWh - Hz	MWh / Hz	\$	\$	MWh	MWh	MWh - Hz	MWh / Hz	\$	\$	MWh	MWh	MWh - Hz	MWh / Hz	\$	
-15	15	-0.161	-1.76352	-176.35		-31	31	-0.333	-3.64460	-364.46		-415	415	-4.451	-48.790.63	-48.790.63	
-24	24	-0.195	-2.13660	-213.66		-32	32	-0.260	-2.848.80	-284.88		-592	592	-4.808	-52.702.80	-52.702.80	
-14	14	-0.095	-1.046.68	-104.67		-49	49	-0.334	-3.663.37	-366.34		-585	585	-3.990	-43.736.20	-43.736.20	
-9	9	-0.042	-456.08	-45.61		-36	36	-0.166	-1.824.33	-182.43		-428	428	-1.979	-21.689.23	-21.689.23	
1	1	0.017	183.55	18.35		-25	25	-0.419	-4.588.67	-458.87		-399	399	-6.682	-73.235.13	-73.235.13	
6	6	0.010	107.08	10.71		-18	18	-0.029	-321.25	-32.13		-322	322	-0.524	-5.746.88	-5.746.88	
-13	13	-0.021	-11.54	-1.15		-31	31	0.003	27.75	2.78		-284	284	0.023	254.21	25.42	
-1	1	-0.003	-32.11	-3.21		-12	12	0.035	385.37	38.54		-150	150	-0.440	-4.817.17	-4.817.17	
8	8	0.063	692.12	69.21		-3	3	-0.024	-259.55	-25.95		-92	92	-0.726	-7.959.42	-7.959.42	
19	19	0.113	1,237.91	123.79		23	23	0.137	1,497.43	149.74		-47	47	-0.279	-3.059.97	-3.059.97	
8	8	0.079	870.56	87.06		14	14	0.139	1,523.48	152.35		-70	70	-0.695	-7.617.42	-7.617.42	
4	4	0.044	478.10	47.81		5	5	0.055	597.63	59.76		-101	101	-1.101	-12.027.03	-12.027.03	
7	7	0.122	1,341.07	134.11		13	13	0.227	2,490.56	249.06		-120	120	-2.098	-22.989.81	-22.989.81	
9	9	0.098	1,074.05	107.41		24	24	0.261	2,864.14	286.41		-152	152	-1.655	-18.139.55	-18.139.55	
-8	8	-0.090	-983.20	-98.32		43	43	0.482	5,284.71	528.47		-56	56	-0.628	-6.882.41	-6.882.41	
-23	23	-0.157	-1,719.54	-171.95		-27	27	-0.184	-2,018.59	-201.86		-35	35	-0.239	-2.616.70	-2.616.70	
-23	23	-0.316	-3,463.03	-346.30		-8	8	-0.110	-1,204.53	-120.45		-215	215	-2.953	-32.371.77	-32.371.77	
-29	29	-0.252	-2,767.47	-276.75		-15	15	-0.131	-1,431.45	-143.15		74	74	0.644	7,061.82	7,061.82	
-10	10	-0.092	-1,008.01	-100.80		-21	21	-0.193	-2,116.82	-211.68		-42	42	-0.5	-5.464.00	-5.464.00	
5	5	0.028	303.24	30.32		-20	20	-0.111	-1,212.97	-121.30		-116	116	-0.642	-7,035.23	-7,035.23	
9	9	-0.075	-818.75	-81.88		-15	15	-0.125	-1,364.59	-136.46		-159	159	-1.320	-14,464.67	-14,464.67	
-3	3	-0.062	-677.03	-67.70		-32	32	-0.659	-7,221.70	-722.17		-138	138	-2.841	-31,143.59	-31,143.59	
-7	7	-0.086	-947.74	-94.77		43	43	0.531	5,821.81	582.18		-252	252	-3.113	-34,118.54	-34,118.54	
-6	6	-0.135	-1,481.16	-148.12		-26	26	-0.586	-6,416.35	-641.63		-268	268	-6.036	-66,158.33	-66,158.33	
0	0	0.000	0.00	0.00		-27	27	-0.066	-718.39	-71.84		-237	237	-0.575	-6,305.88	-6,305.88	
0	0	0.000	0.00	0.00		1	1	0.014	152.24	15.22		-42	42	-1.974	-21,831.96	-21,831.96	
0	0	0.066	723.01	72.30		-3	3	-0.028	-309.86	-30.99		-358	358	-3.374	-36,976.84	-36,976.84	
1	1	0.012	136.29	13.63		-38	38	-0.472	-5,178.86	-517.89		-440	440	-5.471	-59,965.77	-59,965.77	
5	5	0.046	508.48	50.85		-17	17	-0.158	-1,728.83	-172.88		-368	368	-3.414	-37,424.07	-37,424.07	
12	12	0.26	310.40	31.04		-26	26	-0.061	-672.54	-67.25		-429	429	-1.012	-11,096.92	-11,096.92	
6	6	0.003	37.38	3.74		-23	23	-0.013	-143.27	-14.33		-347	347	-0.197	-2,161.55	-2,161.55	
2	2	0.007	74.03	7.40		19	19	0.065	711.87	71.19		-111	111	-1.114	-12,214.21	-12,214.21	
2	2	-0.020	-219.43	-21.94		36	36	-0.120	-1,316.58	-131.66		-381	381	-1.271	-13,933.85	-13,933.85	
8	8	-0.065	-713.61	-71.36		29	29	-0.236	-2,586.82	-258.68		-416	416	3.386	37,107.53	37,107.53	
1	1	-0.001	-10.70	-1.07		6	6	-0.006	-64.23	-6.42		-410	410	0.400	4,388.98	4,388.98	
7	7	0.001	6.27	0.63		17	17	0.001	15.22	1.52		-300	300	-0.025	-268.53	-26.85	
0	0	0.000	0.00	0.00		21	21	-0.137	-1,498.42	-149.84		-422	422	2.747	30,111.11	30,111.11	
5	5	-0.042	-459.34	-45.93		-14	14	-0.117	-1,286.15	-128.62		-509	509	-4.266	-46,760.73	-46,760.73	
6	6	-0.042	-454.97	-45.50		2	2	-0.014	-151.66	-15.17		-332	332	2.297	25,175.20	25,175.20	
-3	3	0.022	238.12	23.81		-8	8	0.420	4,603.62	460.36		-346	346	2.506	27,463.00	27,463.00	
-31	31	0.439	4,811.25	481.13		30	30	-0.425	-4,656.05	-465.61		-381	381	5.395	59,131.86	59,131.86	
-15	15	0.057	628.86	62.89		18	18	-0.069	-754.64	-75.46		-196	196	0.750	8,217.14	8,217.14	
2	2	-0.004	-41.03	-4.10		41	41	-0.077	-841.10	-84.11		-170	170	0.318	3,487.47	3,487.47	
15	15	-2.485	-2,485.32	-248.53		-7	7	-0.108	-1,159.81	-115.98		-257	257	7.887	85,581.70	85,581.70	
13	13	-0.004	-42.52	-4.25		-1	1	0.000	3.27	0.33		-308	308	0.092	1,007.47	1,007.47	
9	9	0.057	620.85	62.09		45	45	0.283	3,104.25	310.42		-163	163	-1.026	-11,244.27	-11,244.27	
-8	8	0.020	214.10	21.41		53	53	-0.129	-1,418.39	-141.84		-363	363	0.886	9,714.63	9,714.63	
0	0	0.000	0.00	0.00		-7	7	0.003	37.47	3.75		-442	442	0.216	2,365.77	2,365.77	
6	6	0.062	674.40	67.44		48	48	0.492	5,395.23	539.52		-347	347	-3.558	-39,003.04	-39,003.04	
-4	4	-0.030	-333.60	-33.36		5	5	0.076	834.01	83.40		-351	351	-5.342	-58,547.38	-58,547.38	
-4	4	-0.111	-1,215.63	-121.56		18	18	0.360	3,950.81	395.09		-423	423	-6.316	-69,311.62	-69,311.62	
-2	2	-0.021	-226.22	-22.62		23	23	0.237	2,601.58	260.16		-360	360	-3.715	-40,720.31	-40,720.31	
53	53	-0.190	-2,086.71	-208.67		30	30	-0.108	-1,181.16	-118.12		-463	463	1.663	18,229.16	18,229.16	
36	36	0.111	1,214.25	121.42		41	41	0.126	1,382.89	138.29		-351	351	-1.080	-11,838.91	-11,838.91	
11	11	-0.139	-1,520.74	-152.07		20	20	-0.252	-2,764.99	-276.50		-490	490	6.181	67,742.19	67,742.19	
12	12	0.018	192.69	19.27		17	17	0.025	272.97	27.30		-296	296	-0.434	-4,752.94	-4,752.94	
5	5	0.020	214.10	21.41		23	23	0.090	985.64	98.56		-403	403	-1.571	-17,256.18	-17,256.18	
12	12	-0.073	-802.97	-80.30		23	23	-0.140	-1,539.03	-153.90		-472	472	2.882	31,583.55	31,583.55	
38	38	-0.022	-236.71	-23.67		-29	29	0.016	180.65	18.06		-492	492	0.280	3,064.80	3,064.80	
12	12	0.016	171.20	17.12		12	12	0.016	171.20	17.12		-358	358	-0.466	-5,107.59	-5,107.59	
2	2	0.003	37.45	3.74		88	88	0.150	1,647.74	164.77		-546	546	-0.933	-10,223.47	-10,223.47	
2	2	-0.006	-60.65	-6.06		5	5	-0.014	-151.62	-15.16		-446	446	1.234	13,524.62	13,524.62	
-1	1	-0.002	-23.03	-2.30		26	26	-0.072	-788.43	-78.84		-613	613	-1.413	-15,568.34	-15,568.34	
-8	8	0.029	313.91	31.39		-49	49	0.175	1,922.70	192.27		-390	390	3.980	43,303.15	43,303.15	
3	3	-0.039	-425.49	-42.55		-36	36	0.466	5,105.87	510.59		-521	521	6.742	73,893.34	73,893.34	
6	6	-0.010	-112.35	-11.23		12	12	0.021	224.69	22.47		-400	400	0.683	7,489.73	7,489.73	
2	2	0.004	41.03	4.10		-9	9	-0.017	-184.63	-18.46		-291	291	-0.545	-5,969.73	-5,969.73	
-1	1	-0.001	-10.70	-1.07		-17	17	-0.017	-181.98	-18.20		-431	431	-0.421	-4,613.78	-4,613.78	
2	2	0.014	148.08	14.81		6	6	-0.041	-444.23	-44.42		-237	237	-1.601	-17,547.17	-17,547.17	
2	2	0.028	308.61	30.86		-49	49	-0.690	-7,561.02	-756.10		-433	433	-6.096	-66,814.76	-66,814.76	
-4	4	-0.041	-445.95	-44.59		-9	9	-0.092	-1,003.39	-100.34		-383	383	-3.896	-42,699.64	-42,699.64	
-13	13	-0.143	-1,565.46	-156.55		-32	32	-0.352	-3,853.45	-385.34		-516	516	-5.669	-62,136.81	-62,136.81	
-12	12	-0.075	-824.24	-82.42		-45	45	-0.282	-3,090.88	-309.09		-258	258	-1.617	-17,721.06	-17,721.06	
-4	4	-0.041	-445.95	-44.59		-47	47	-0.478	-5,239.90	-523.99		-252	252	-2.563	-28,094.80	-28,094.80	
-9	9	-0.042	-457.71	-45													

20	20	0.133	1,459.46	\$145.95	79	79	0.526	5,764.88	\$576.49	-243	243	-1.618	-17,732.47	-\$1,773.25
-8	8	-0.101	-1,104.60	-\$110.46	121	121	1.524	16,707.13	\$1,670.71	-250	250	-3.419	-34,518.87	-\$3,451.89
4	4	0.063	691.31	\$69.13	77	77	1.214	13,307.69	\$1,330.77	-621	621	-9.792	-107,325.68	-\$10,732.57
-5	5	-0.150	-1,644.45	-\$164.45	64	64	-1.920	-21,048.28	-\$2,104.90	-753	753	-22.953	-247,854.35	-\$24,785.43
-12	12	-0.092	-1,006.18	-\$100.62	98	98	-0.750	-8,217.14	-\$821.71	-476	476	-3.641	-39,911.83	-\$3,991.18
-4	4	-0.021	-228.35	-\$22.83	-100	100	-0.521	-5,708.63	-\$570.86	-621	621	-3.234	-35,450.60	-\$3,545.06
-6	6	-0.096	-1,047.81	-\$104.78	-91	91	-1.450	-15,891.79	-\$1,589.18	-584	584	-3.305	-101,986.88	-\$10,198.69
0	0	0.000	0.00	\$0.00	-101	101	-0.960	-10,522.39	-\$1,052.24	-496	496	-4.715	-51,674.31	-\$5,167.33
-11	11	-0.097	-1,057.82	-\$105.78	-63	63	-0.553	-6,058.41	-\$605.84	-480	480	-4.211	-46,159.32	-\$4,615.93
-10	10	-0.115	-1,255.85	-\$125.58	-96	96	-1.100	-12,056.12	-\$1,205.61	-442	442	-5.064	-55,508.39	-\$5,550.84
-4	4	-0.009	-78.48	-\$7.85	-54	54	-0.097	-1,059.45	-\$105.90	-370	370	-0.662	-7,259.19	-\$725.92
2	2	0.011	124.88	\$12.49	-70	70	-0.399	-4,370.71	-\$437.07	-413	413	-2.353	-25,787.20	-\$2,578.72
2	2	0.022	242.59	\$24.26	-45	45	-0.498	-5,458.37	-\$545.84	-528	528	-5.843	-64,044.82	-\$6,404.48
-4	4	-0.006	-60.72	-\$6.07	34	34	0.047	516.13	\$51.61	-489	489	-0.677	-7,423.21	-\$742.32
7	7	0.065	711.74	\$71.17	-17	17	-0.158	-1,728.52	-\$172.85	-394	394	-3.655	-40,060.97	-\$4,006.10
27	27	0.290	3,178.94	\$317.89	-36	36	-0.387	-4,238.45	-\$423.85	-279	279	-2.997	-32,848.02	-\$3,284.80
15	15	0.237	2,392.68	\$239.27	-12	12	-0.189	-2,074.15	-\$207.41	-410	410	-6.466	-70,886.69	-\$7,088.66
8	8	0.068	747.85	\$74.78	-38	38	-0.324	-3,552.27	-\$355.23	-317	317	-2.704	-29,633.42	-\$2,963.34
1	1	0.004	39.99	\$4.00	-33	33	-0.120	-1,319.76	-\$131.98	-268	268	-0.978	-10,178.07	-\$1,017.81
6	6	0.031	336.16	\$33.62	-77	77	-0.394	-4,314.03	-\$431.40	-203	203	-1.038	-11,373.36	-\$1,137.34
18	18	0.009	96.34	\$9.63	-16	16	-0.008	-85.64	-\$8.56	-112	112	-0.055	-599.47	-\$59.94
20	20	-0.003	-35.44	-\$3.54	19	19	-0.003	-33.67	-\$3.37	-309	309	0.050	547.54	\$54.75
18	18	0.023	267.81	\$26.78	-6	6	-0.008	-85.60	-\$8.56	-252	252	-0.328	-3,595.29	-\$359.53
-5	5	-0.008	-89.24	-\$8.92	13	13	0.021	232.02	\$23.20	-182	182	-0.296	-3,248.24	-\$324.82
9	9	-0.029	-313.20	-\$31.32	-16	16	0.051	556.80	\$55.68	-601	601	1.908	20,914.69	\$2,091.47
-5	5	-0.060	-655.62	-\$65.56	-3	3	-0.036	-393.37	-\$39.34	-547	547	-6.544	-71,725.37	-\$7,172.54
3	3	0.001	13.37	\$1.34	16	16	0.007	71.32	\$7.13	-688	688	-0.280	-3,066.62	-\$306.66
27	27	-0.116	-1,276.47	-\$127.65	39	39	-0.168	-1,843.79	-\$184.38	-586	586	2.528	27,704.09	\$2,770.41
14	14	0.278	3,046.97	\$304.70	-9	9	-0.179	-1,958.76	-\$195.88	-320	320	-6.354	-69,644.95	-\$6,964.49
-3	3	-0.047	-516.46	-\$51.65	-48	48	-0.754	-8,263.40	-\$826.34	-336	336	-5.277	-57,843.77	-\$5,784.38
15	15	0.134	1,471.73	\$147.17	-6	6	-0.054	-588.69	-\$58.87	-450	450	-4.028	-44,151.93	-\$4,415.19
15	15	0.200	2,191.38	\$219.14	-72	72	-0.960	-10,518.64	-\$1,051.86	-437	437	-5.825	-63,842.33	-\$6,384.23
8	8	0.113	1,240.18	\$124.02	-53	53	-0.750	-8,216.18	-\$821.62	-428	428	-6.053	-66,349.49	-\$6,634.95
21	21	0.101	1,101.77	\$110.18	-119	119	-0.570	-6,243.38	-\$624.34	-621	621	-2.973	-32,581.02	-\$3,258.10
-1	1	-0.062	-679.15	-\$67.91	10	10	-0.197	-2,197.18	-\$219.72	-218	218	1.351	14,885.39	\$1,485.34
-1	1	0.010	113.28	\$11.33	-211	211	2.181	23,901.56	\$2,390.16	-151	151	1.561	17,104.91	\$1,710.49
-1	1	0.013	144.50	\$14.45	-167	167	2.202	24,130.98	\$2,413.10	-236	236	3.111	34,101.27	\$3,410.13
-5	5	-0.053	-584.29	-\$58.43	-141	141	1.503	16,476.98	\$1,647.70	-470	470	3.011	54,923.25	\$5,493.23
-15	15	-0.140	-1,534.72	-\$153.47	-92	92	0.859	9,412.94	\$941.29	-448	448	4.832	45,836.91	\$4,583.69
9	9	-0.013	-146.04	-\$14.60	-95	95	1.266	13,874.14	\$1,387.41	-348	348	4.167	50,823.15	\$5,082.31
9	9	0.050	551.61	\$55.16	-84	84	0.479	5,148.36	\$514.84	-487	487	2.779	30,461.16	\$3,046.16
-14	14	0.213	2,331.91	\$233.19	-144	144	2.188	23,985.35	\$2,398.53	-494	494	7.501	82,283.06	\$8,228.31
-15	15	0.087	950.01	\$95.00	-128	128	0.740	8,106.73	\$810.67	-388	388	2.242	24,753.52	\$2,473.52
6	6	-0.015	-160.46	-\$16.05	-131	131	0.320	3,503.44	\$350.34	-332	332	0.810	8,878.94	\$887.89
13	13	-0.165	-1,809.12	-\$180.91	-85	85	1.079	11,828.83	\$1,182.88	-235	235	2.984	32,703.25	\$3,270.32
13	13	-0.054	-591.32	-\$59.13	-117	117	0.486	5,321.91	\$532.19	-134	134	0.556	6,095.17	\$609.52
6	6	-0.015	-160.57	-\$16.06	-124	124	0.303	3,315.50	\$331.55	-461	461	0.393	4,306.69	\$430.67
4	4	-0.009	-103.35	-\$10.34	-113	113	0.267	2,923.87	\$292.39	-688	688	-1.796	-17,796.46	-\$1,779.65
4	4	-0.021	-234.42	-\$23.44	14	14	-0.075	-820.45	-\$82.05	-751	751	4.015	44,011.47	\$4,401.15
11	11	0.112	1,112.39	\$111.24	-42	42	-0.388	-4,247.32	-\$424.73	-518	518	-4.779	-52,383.63	-\$5,238.36
4	4	0.017	181.95	\$18.19	-77	77	-0.320	-3,502.45	-\$350.25	-431	431	-1.789	-19,604.63	-\$1,960.46
-16	16	-0.167	-1,826.76	-\$182.68	-86	86	-0.896	-9,818.85	-\$981.88	-284	284	-2.958	-32,425.03	-\$3,242.50
-11	11	-0.042	-461.17	-\$46.12	-52	52	-0.199	-2,180.06	-\$218.01	-420	420	-1.607	-17,608.16	-\$1,760.82
-11	11	-0.110	-1,206.97	-\$120.69	-52	52	-0.721	-8,120.90	-\$812.09	-312	312	-3.421	-34,221.15	-\$3,423.12
-14	14	-0.080	-874.14	-\$87.41	-33	33	-0.188	-2,060.48	-\$206.05	-288	288	-1.644	-17,922.38	-\$1,792.24
-8	8	-0.073	-799.10	-\$79.91	-40	40	-0.365	-3,995.49	-\$399.55	-307	307	-2.798	-30,665.42	-\$3,066.54
-6	6	-0.056	-615.55	-\$61.55	-72	72	-0.674	-7,386.55	-\$738.65	-298	298	-2.789	-30,572.11	-\$3,057.21
7	7	0.013	143.60	\$14.36	-38	38	-0.071	-779.55	-\$77.96	-359	359	0.672	-7,364.72	-\$736.47
26	26	-0.077	-838.50	-\$83.85	-45	45	0.132	1,451.24	\$145.12	-152	152	0.447	4,901.98	\$490.20
26	26	-0.182	-1,997.48	-\$199.75	-47	47	-0.329	-3,508.33	-\$350.83	-425	425	-2.979	-32,651.25	-\$3,265.12
6	6	0.020	218.48	\$21.85	70	70	0.233	2,548.95	\$254.89	-351	351	-1.166	-12,781.15	-\$1,278.11
0	0	0.000	0.00	\$0.00	19	19	-0.332	-3,643.70	-\$364.37	-468	468	8.188	89,750.00	\$8,975.00
-16	16	0.271	2,968.42	\$296.84	-8	8	0.135	1,484.21	\$148.42	-638	638	10.799	118,365.57	\$11,836.56
-21	21	0.225	2,467.12	\$246.71	-39	39	0.418	4,581.79	\$458.18	-460	460	4.931	54,041.59	\$5,404.16
-13	13	0.153	1,678.35	\$167.83	-46	46	0.542	5,938.77	\$593.88	-612	612	7.209	79,011.52	\$7,901.15
-12	12	0.163	1,784.54	\$178.45	-37	37	0.502	5,502.33	\$550.23	-609	609	8.263	90,565.30	\$9,056.33
-19	19	0.160	1,757.88	\$175.79	-83	83	0.785	8,604.34	\$860.43	-586	586	9.347	54,216.62	\$5,421.66
-23	23	0.535	5,862.70	\$586.27	-64	64	1.488	16,313.60	\$1,631.36	-526	526	12.233	134,077.41	\$13,407.74
-8	8	0.083	913.38	\$91.34	-26	26	0.271	2,968.49	\$296.85	-459	459	4.781	52,405.24	\$5,240.52
-2	2	0.020	219.43	\$21.94	-20	20	0.200	2,194.31	\$219.43	-320	320	3.203	35,108.91	\$3,510.89
8	8	-0.120	-1,320.09	-\$132.01	-29	29	0.437	4,785.33	\$478.53	-190	190	2.860	31,352.17	\$3,135.22
23	23	-0.254	-2,788.34	-\$278.83	-24	24	0.265	2,969.57	\$296.96	-347	347	3.838	42,067.52	\$4,206.75
-9	9	-0.123	-1,349.51	-\$134.95	-49	49	0.464	5,068.61	\$506.86	-491	491	3.773	38,721.51	\$3,872.15
13	13	-0.068	-750.21	-\$75.02	-17	17	0.090	981.04	\$98.10	-265	265	1.395	15,292.73	\$1,529.73
2	2	0.017	191.51	\$19.15	50	50	0.437	4,787.71	\$478.77	-286	286	-2.499	-27,385.71	-\$2,738.57
5	5	0.042	454.96	\$45.50	10	10	0.083	909.91	\$90.99	-279	279	-2.316	-25,386.50	-\$2,538.65
0	0	0.000	0.00	\$0.00	-3	3	-0.018	-192.63	-\$19.26	-269	269	-1.576	-17,272.68	-\$1,727.27
-1	1	-0.004	-47.28	-\$4.73	20	20	0.086	945.53	\$94.55	-368	368	-1.587	-17,397.79	-\$1,739.78
-1	1	-0.006	-56.98	-\$5.70	0	0	0.000	0.00	\$0.00	-627	627	-3.346	-36,389.30	-\$3,638.93
8	8	0.037	406.71	\$40.67	0	0	0.000	0.00	\$0.00	-553	553	-2.565	-28,113.85	-\$2,813.39
8	8	0.052	569.61	\$56.96	31	31	0.201	2,207.25	\$220.73	-417	417	-2.709	-29,691.11	-\$2,969.11
12	12	0.023	255.08	\$25.51	70									

17	17	-0.296	-3,246.33	-\$324.63	-3	3	0.052	572.88	\$57.29	-521	521	9.077	99,490.59	\$9,949.06
26	26	-0.576	-6,307.92	-\$630.79	-4	4	0.089	970.45	\$97.04	-565	565	12.506	137,075.95	\$13,707.59
19	19	0.070	762.55	\$76.25	-10	10	-0.037	-401.34	-\$40.13	-278	278	-1.018	-11,157.24	-\$1,115.72
21	21	0.053	580.80	\$58.08	-8	8	-0.020	-221.26	-\$22.13	-286	286	-0.722	-7,909.95	-\$791.00
0	0	0.000	0.00	\$0.00	-35	35	-0.057	-624.66	-\$62.47	-252	252	-0.410	-4,497.56	-\$449.76
-11	11	0.045	490.70	\$49.07	-10	10	0.041	446.10	\$44.61	-190	190	0.773	8,475.81	\$847.58
-13	13	0.032	347.91	\$34.79	24	24	-0.059	-642.29	-\$64.23	-174	174	0.425	4,656.60	\$465.66
-14	14	-0.002	-16.63	-\$1.66	26	26	0.003	30.88	\$3.09	-169	169	-0.018	-200.73	-\$20.07
-20	20	0.001	12.06	\$1.21	13	13	-0.001	-7.84	-\$0.78	-253	253	0.014	152.57	\$15.26
-24	24	-0.035	-385.37	-\$38.54	9	9	0.013	144.52	\$14.45	-246	246	-0.360	-3,950.08	-\$395.01
9	9	0.043	473.86	\$47.37	-7	7	-0.034	-368.40	-\$36.84	-218	218	-1.047	-11,473.13	-\$1,147.31
2	2	0.006	67.77	\$6.78	74	74	0.229	2,507.60	\$250.76	-292	292	-0.903	-9,894.84	-\$989.48
9	9	0.033	361.21	\$36.12	35	35	0.128	1,404.69	\$140.47	-127	127	-0.465	-5,097.01	-\$509.70
9	9	0.029	321.09	\$32.11	-31	31	-0.101	-1,105.98	-\$110.60	-58	58	-0.189	-2,069.25	-\$206.92
-2	2	0.008	85.60	\$8.56	-43	43	0.168	1,840.44	\$184.04	41	41	-0.160	-1,754.84	-\$175.48
5	5	-0.021	-227.52	-\$22.75	-5	5	0.021	227.52	\$22.75	48	48	-0.199	-2,184.22	-\$218.42
5	5	-0.009	-102.57	-\$10.26	6	6	-0.011	-123.09	-\$12.31	-105	105	0.197	2,154.03	\$215.40
-18	18	-0.198	-2,167.56	-\$216.76	60	60	0.659	7,225.21	\$722.52	-28	28	-0.308	-3,371.76	-\$337.18
-13	13	0.002	23.04	\$2.30	24	24	-0.004	-42.53	-\$4.25	-455	455	0.074	806.24	\$80.62
-3	3	-0.013	-147.15	-\$14.71	-21	21	-0.094	-1,030.02	-\$103.00	-555	555	-2.484	-27,221.95	-\$2,722.20
-12	2,612		-54,759.18		-3,534	10,378		155,948.45		-93,454	93,952		-2,555,241.56	
	$\Sigma(I \times \Delta F) \Rightarrow$	-4.983	CA Total \$ \Rightarrow	-\$5,475.92		$\Sigma(I \times \Delta F) \Rightarrow$	14.322	CA Total \$ \Rightarrow	\$15,594.85		$\Sigma(I \times \Delta F) \Rightarrow$	-230.647	CA Total \$ \Rightarrow	-\$255,524.16
			Cost / MWh \Rightarrow \$	456.33				Cost / MWh \Rightarrow \$	4.41				Cost / MWh \Rightarrow \$	2.73
			Cost / MWh \Rightarrow \$	2.10				Cost / MWh \Rightarrow \$	1.50				Cost / MWh \Rightarrow \$	2.72

Control Area #12					Control Area #13				
12A	12B	12C	12D	12E	13A	13B	13C	13D	13E
Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (1 \times \Delta F) \sum (\Delta F \wedge 2)$	FCCS @ \$.1 / 100	Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (1 \times \Delta F) \sum (\Delta F \wedge 2)$	FCCS @ \$.1 / 100
I	ABS (I)	I x ΔF	FCC = -10β	12Dx \$ / 10β	I	ABS (I)	I x ΔF	FCC = -10β	13Dx \$ / 10β
MWh	MWh	MWh - Hz	MWh / Hz	\$	MWh	MWh	MWh - Hz	MWh / Hz	\$
108	108	1.158	12.69732	\$1,269.73	-471	471	-0.052	-55.37442	-\$537.44
21	21	0.171	1.86952	\$186.95	-362	362	-2.940	-32.22705	-\$3,222.70
-7	7	-0.048	-523.34	-\$52.33	-225	225	-1.535	-16.82162	-\$1,682.16
-65	65	-0.301	-3,293.93	-\$329.39	-230	230	-1.063	-11.65543	-\$1,165.54
-105	105	-1.758	-19,272.40	-\$1,927.24	-307	307	-5.141	-56.34884	-\$5,634.88
-286	286	-0.466	-5,104.38	-\$510.44	-668	668	-1.088	-11.92211	-\$1,192.21
50	50	-0.004	-44.76	-\$4.47	985	985	0.000	881.89	\$88.19
-60	60	-0.176	-1,926.87	-\$192.69	-1,046	1,046	-3.065	-33.59175	-\$3,359.17
-250	250	-1.973	-21,628.86	-\$2,162.89	-956	956	-7.546	-82.70878	-\$8,270.88
-166	166	-0.986	-10,807.56	-\$1,080.76	-689	689	-4.093	-44.85790	-\$4,485.79
30	30	0.298	3,264.61	\$326.46	-654	654	-6.493	-71.16843	-\$7,116.84
-73	73	-0.796	-8,725.33	-\$872.53	-468	468	-5.104	-55.93772	-\$5,593.77
-75	75	-1.311	-14,368.63	-\$1,436.86	-452	452	-7.901	-86.59436	-\$8,659.50
-175	175	-1.905	-20,884.35	-\$2,088.44	-460	460	-5.008	-54.89601	-\$5,489.60
-307	307	-3.442	-37,730.34	-\$3,773.03	-453	453	-5.079	-55.67376	-\$5,567.38
-257	257	-1.753	-19,214.02	-\$1,921.40	-507	507	-3.458	-37.90471	-\$3,790.47
-338	338	-4.643	-50,891.43	-\$5,089.14	-774	774	-10.633	-116.53837	-\$11,653.84
-514	514	-4.475	-49,051.05	-\$4,905.11	-1,021	1,021	-8.890	-97.43409	-\$9,743.41
-545	545	-5.012	-54,936.40	-\$5,493.64	-1,110	1,110	-10.208	-111.88882	-\$11,188.88
-605	605	-3.348	-36,692.35	-\$3,669.23	-814	814	-4.504	-49.36788	-\$4,936.79
-550	550	-4.565	-50,035.02	-\$5,003.50	-796	796	-6.607	-72.41432	-\$7,241.43
-182	182	-3.747	-41,073.43	-\$4,107.34	-666	666	-13.713	-150.30169	-\$15,030.17
-290	290	-3.582	-39,263.40	-\$3,926.34	-654	654	-8.079	-88.54573	-\$8,854.57
-199	199	-4.482	-49,125.03	-\$4,912.50	-563	563	-12.455	-136.51326	-\$13,651.33
-142	142	-0.345	-3,778.21	-\$377.82	-457	457	-1.109	-12.15943	-\$1,215.94
-75	75	-1.042	-11,422.33	-\$1,142.53	-583	583	-8.103	-89.81290	-\$8,981.29
-47	47	-0.443	-4,854.50	-\$485.45	-574	574	-5.409	-59.28689	-\$5,928.69
-83	83	-1.032	-11,311.73	-\$1,131.17	-636	636	-7.908	-86.67780	-\$8,667.78
-117	117	-1.086	-11,898.41	-\$1,189.84	-823	823	-7.636	-83.69569	-\$8,369.57
-193	193	-0.455	-4,992.32	-\$499.23	-790	790	-1.864	-20.43489	-\$2,043.49
-108	108	-0.061	-672.76	-\$67.28	-761	761	-0.433	-4.74047	-\$474.05
-151	151	-0.516	-5,667.50	-\$566.75	-952	952	-8.254	-85.6648	-\$8,566.48
-187	187	-0.624	-6,838.92	-\$683.89	-1,008	1,008	-3.363	-36.86435	-\$3,686.44
75	75	-0.610	-6,690.06	-\$669.01	-910	910	7.406	81.17273	\$8,117.27
8	8	-0.008	-85.64	-\$8.56	-973	973	0.950	10.41580	\$1,041.58
20	20	0.002	17.90	\$1.79	-656	656	-0.054	-587.19	-\$58.72
303	303	-1.973	-21,620.06	-\$2,162.01	-775	775	5.045	55.29883	\$5,298.83
384	384	-3.219	-35,277.26	-\$3,527.73	-807	807	6.704	74.13737	\$7,413.74
287	287	-1.986	-21,762.89	-\$2,176.29	-762	762	8.272	57.78162	\$5,778.16
322	322	-2.332	-25,558.05	-\$2,555.80	-716	716	5.185	56.83094	\$5,683.09
243	243	-3.441	-37,714.02	-\$3,771.40	-1,064	1,064	15.066	165.13463	\$16,513.46
94	94	-0.360	-3,940.87	-\$394.09	-1,181	1,181	4.517	49.51247	\$4,951.25
-3	3	0.006	61.54	\$6.15	-1,209	1,209	2.263	24.80208	\$2,480.21
-1	1	-0.015	-165.59	-\$16.56	-1,168	1,168	-1.668	-193.52311	-\$19,352.31
61	61	-0.018	-199.53	-\$19.95	-1,135	1,135	0.339	3.71261	\$371.26
47	47	0.296	3,242.21	\$324.22	-1,005	1,005	-6.325	-69.32815	-\$6,932.82
100	100	-0.244	-2,676.21	-\$267.62	-993	993	2.425	26.57473	\$2,657.47
156	156	-0.076	-834.98	-\$83.50	-673	673	0.329	3.60217	\$360.22
10	10	0.103	1,124.01	\$112.40	-492	492	-5.045	-55.30113	-\$5,530.11
-53	53	-0.807	-8,840.49	-\$884.05	-531	531	-8.081	-88.57168	-\$8,857.17
-20	20	-0.855	-9,078.17	-\$907.82	-532	532	-14.751	-161.93200	-\$16,193.20
-96	96	-0.991	-10,858.75	-\$1,085.87	-599	599	-5.182	-57.75406	-\$5,775.41
-38	38	0.137	1,496.13	\$149.61	-547	547	1.965	21.53640	\$2,153.64
-121	121	-0.372	-4,081.22	-\$408.12	-866	866	-2.665	-29.20938	-\$2,920.94
191	191	-2.409	-26,405.63	-\$2,640.56	-1,002	1,002	12.639	138.52587	\$13,852.59
-11	11	-0.016	-176.63	-\$17.66	-1,142	1,142	-1.673	-18.33737	-\$1,833.74
3	3	0.012	128.46	\$12.85	-1,056	1,056	-4.351	-46.21719	-\$4,621.72
-175	175	1.068	11,710.00	\$1,171.00	-840	840	5.128	56.20801	\$5,620.80
-141	141	0.080	878.33	\$87.83	-805	805	0.458	5.01455	\$501.46
60	60	0.078	856.02	\$85.60	-798	798	-1.039	-11.38508	-\$1,138.51
172	172	0.294	3,220.58	\$322.06	-694	694	-1.186	-12.99467	-\$1,299.47
45	45	-0.125	-1,364.59	-\$136.46	-740	740	2.047	22.43995	\$2,243.99
79	79	0.219	2,385.62	\$238.56	-672	672	-8.959	-96.37672	-\$9,637.67
136	136	-0.487	-5,336.48	-\$533.65	-743	743	2.660	29.15447	\$2,915.45
288	288	-3.727	-40,846.99	-\$4,084.70	-1,072	1,072	13.872	152.04157	\$15,204.16
-131	131	0.224	2,452.88	\$245.29	-1,108	1,108	1.893	20.74654	\$2,074.65
-109	109	-0.204	-2,236.08	-\$223.61	-1,173	1,173	-2.195	-24.06356	-\$2,406.36
-58	58	-0.057	-620.88	-\$62.09	-1,127	1,127	-1.101	-12.06434	-\$1,206.43
92	92	0.621	6,811.56	\$681.16	-1,151	1,151	-1.775	-19.23105	-\$1,923.11
114	114	1.605	17,590.95	\$1,759.10	-1,035	1,035	-14.571	-159.70734	-\$15,970.73
43	43	0.437	4,793.95	\$479.40	-1,057	1,057	-10.751	-117.84208	-\$11,784.21
136	136	1.494	16,377.14	\$1,637.71	-745	745	-8.185	-89.71302	-\$8,971.30
-132	132	-0.827	-9,066.59	-\$906.66	-584	584	-3.660	-40.11278	-\$4,011.28
-32	32	-0.325	-3,567.59	-\$356.76	-549	549	-5.584	-61.20653	-\$6,120.65
-48	48	-0.223	-2,441.14	-\$244.11	-545	545	-2.529	-27.71710	-\$2,771.71
-25	25	-0.069	-758.11	-\$75.81	-694	694	-1.643	-18.01261	-\$1,801.26
-218	218	-0.213	-2,333.65	-\$233.37	-707	707	-0.691	-7.56831	-\$756.83
-228	228	-2.041	-22,370.31	-\$2,237.03	-964	964	-8.629	-94.58325	-\$9,458.32
30	30	0.236	2,590.22	\$259.02	-800	800	-6.302	-69.07244	-\$6,907.24
-223	223	-4.315	-47,295.95	-\$4,729.60	-1,002	1,002	-19.389	-212.51365	-\$21,251.36
-242	242	0.082	897.11	\$89.71	-1,074	1,074	0.363	3.99139	\$399.14
-224	224	-0.052	-564.51	-\$56.45	-1,011	1,011	-0.232	-2.54784	-\$254.78
-113	113	-0.258	-2,823.88	-\$282.39	-1,127	1,127	-2.570	-28.16385	-\$2,816.39
-249	249	-0.405	-4,439.47	-\$443.95	-1,053	1,053	-1.713	-18.77415	-\$1,877.41
-305	305	0.074	813.46	\$81.35	-1,040	1,040	0.253	2.77376	\$277.38
-366	366	0.626	6,859.78	\$685.98	-1,085	1,085	1.855	20.33570	\$2,033.57
-231	231	1.485	16,275.85	\$1,627.58	-1,181	1,181	7.592	83.21116	\$8,321.12
-12	12	0.054	588.80	\$58.88	-1,136	1,136	5.085	55.73992	\$5,573.99
-318	318	6.444	70,627.09	\$7,062.71	-1,037	1,037	21.013	230.31537	\$23,031.54
-363	363	1.891	20,722.33	\$2,072.23	-1,042	1,042	5.427	59.48395	\$5,948.39
-333	333	-3.794	-41,584.20	-\$4,158.42	-1,082	1,082	-12.328	-135.11742	-\$13,511.74
-344	344	-3.500	-38,357.92	-\$3,835.79	-1,032	1,032	-10.499	-115.07375	-\$11,507.37
-455	455	-0.703	-7,705.01	-\$770.50	-1,040	1,040	-1.607	-17.61145	-\$1,761.14
-399	399	-4.306	-46,073.34	-\$4,607.33	-838	838	-11.366	-123.56136	-\$12,356.14
-332	332	-4.998	-54,783.80	-\$5,478.38	-934	934	-14.061	-154.12068	-\$15,412.07
-276	276	-2.583	-28,315.11	-\$2,831.51	-826	826	-7.731	-84.74014	-\$8,474.01
-214	214	-2.038	-22,333.67	-\$2,233.37	-554	554	-5.275	-57.81706	-\$5,781.71
59	59	-0.658	-7,210.41	-\$721.04	-726	726	8.095	88.72475	\$8,872.47
98	98	0.295	3,234.94	\$323.49	-817	817	-2.461	-26.96884	-\$2,696.88
137	137	1.427	15,641.65	\$1,564.17	-935	935	-8.740	-106.75142	-\$10,675.14
21	21	0.142	1,554.81	\$155.48	-889	889	6.005	65.82038	\$6,582.04
184	184	0.269	2,951.17	\$295.12	-779	779	-1.140	-12.49436	-\$1,249.44
-266	266	0.281	3,080.72	\$308.07	-769	769	0.813	8.90631	\$890.63
-245	245	-2.751	-30,156.37	-\$3,015.64	-850	850	-9.546	-104.62415	-\$10,462.42
-113	113	-1.800	-19,733.76	-\$1,973.38	-992	992	-15.806	-173.23799	-\$17,323.80
-161	161	0.421	4,618.90	\$461.89	-972	972	2.544	27.88556	\$2,788.56
-204	204	1.164	12,759.33	\$1,275.93	-1,071	1,071	6.112	66.98477	\$6,698.48
-313	313	4.610	50,533.61	\$5,053.36	-1,042	1,042	15.349	168.23012	\$16,823.01
-3									

-225	225	-1,498	-16,418.95	-1,641.89	-1,058	1,058	-7,044	-77,205.55	-77,270.56
-187	187	-2,356	-25,820.11	-2,582.01	-1,026	1,026	-12,925	-141,665.44	-141,666.54
-278	278	-4,384	-48,045.95	-4,804.60	-1,042	1,042	-16,430	-180,085.92	-180,086.99
-147	147	-4,411	-48,346.86	-4,834.69	-880	880	-26,406	-289,423.41	-289,424.34
-237	237	-1,813	-19,872.07	-1,987.21	-853	853	-8,525	-71,522.67	-71,522.77
-154	154	-8,802	-8,791.29	-8,879.13	-656	656	-3,417	-37,448.63	-37,448.66
-96	96	-1,530	-16,764.97	-1,676.50	-709	709	-11,297	-123,816.26	-123,816.63
-100	100	-9,851	-10,418.21	-10,418.21	-726	726	-6,901	-75,636.18	-75,636.62
-61	61	-6,535	-6,866.08	-6,866.08	-763	763	-6,694	-73,374.09	-73,374.41
-174	174	-1,994	-21,851.77	-2,185.17	-822	822	-9,418	-103,230.53	-103,230.95
229	229	0,410	4,492.85	\$4,492.85	873	873	1,563	17,127.76	\$17,127.78
113	113	0,644	7,055.58	\$7,055.58	-912	912	-5,195	-56,944.12	-56,944.41
121	121	1,339	14,676.94	\$14,676.94	-956	956	-10,580	-115,959.94	-115,959.99
-18	18	-0,025	-273.25	-273.25	-995	995	-1,378	-15,104.49	-15,104.45
-111	111	-1,030	-11,286.21	-1,128.62	-1,020	1,020	-9,462	-103,711.14	-103,711.11
-99	99	-1,063	-11,655.75	-1,165.57	-943	943	-10,129	-111,023.94	-111,023.99
147	147	2,382	25,408.24	\$25,408.24	-867	867	-8,877	-149,856.99	-149,857.00
180	180	1,535	16,826.55	\$16,826.55	-815	815	-6,951	-76,186.86	-76,186.69
107	107	0,390	4,279.23	\$4,279.23	-644	644	-2,350	-25,755.35	-25,755.54
100	100	0,511	5,602.64	\$5,602.64	-708	708	-3,619	-39,666.70	-39,666.67
64	64	0,031	342.55	\$342.55	-726	726	-0,355	-3,885.85	-3,885.59
-149	149	0,024	264.02	\$264.02	-918	918	0,148	1,626.66	\$1,626.67
-52	2	-0,004	-28.53	-28.53	-849	849	-1,105	-12,123.69	-12,123.77
85	85	0,138	1,517.03	\$1,517.03	-734	734	-1,195	-13,100.04	-13,100.00
-26	26	0,083	904.80	\$904.80	-897	897	2,848	31,215.44	\$31,215.54
84	84	1,005	11,014.50	\$11,014.50	-986	986	-11,796	-129,289.24	-129,289.92
-163	163	-0,066	-726.54	-726.54	-1,035	1,035	-0,421	-4,613.31	-4,613.33
-121	121	0,522	5,720.47	\$5,720.47	-740	740	3,192	34,984.69	\$34,984.67
-274	274	-5,441	-59,653.48	-65,093.35	-429	429	-8,519	-93,367.75	-93,366.78
-191	191	-3,000	-32,881.43	-32,881.43	-240	240	-3,770	-41,316.98	-41,316.70
-90	90	-8,806	-8,830.39	-8,830.39	-284	284	-2,542	-27,864.77	-27,864.48
24	24	0,320	3,506.21	\$3,506.21	-386	386	-5,145	-56,391.62	-56,391.66
-6	6	-0,085	-930.13	-930.13	-435	435	-6,152	-67,434.65	-67,434.46
-134	134	-6,441	-7,030.36	-7,030.36	-563	563	-2,695	-29,538.03	-29,538.90
-120	120	0,744	8,149.75	\$8,149.75	-755	755	-4,678	-51,275.54	-51,275.55
-134	134	1,385	15,179.19	\$15,179.19	-1,059	1,059	10,945	119,960.90	\$119,960.91
-441	441	5,814	63,723.13	\$63,723.13	-834	834	10,995	120,510.41	\$120,510.41
-382	382	4,073	44,639.75	\$44,639.75	-681	681	7,261	79,580.28	\$79,580.03
-410	410	3,827	41,948.96	\$41,948.96	-852	852	7,953	87,171.98	\$87,171.20
-386	386	5,143	56,372.80	\$56,372.80	-712	712	9,487	103,982.99	\$103,982.30
-395	395	2,209	24,209.57	\$24,209.57	-757	757	4,233	46,395.57	\$46,395.66
-236	236	3,596	39,309.32	\$39,309.32	-779	779	11,838	129,754.06	\$129,754.41
-221	221	1,277	13,996.78	\$13,996.78	-790	790	4,565	50,033.74	\$50,033.77
-117	117	0,285	3,129.02	\$3,129.02	-863	863	2,106	23,079.90	\$23,079.99
-241	241	3,060	33,538.22	\$33,538.22	-803	803	10,195	111,747.69	\$111,747.77
-600	600	2,490	27,291.83	\$27,291.83	-837	837	3,474	38,072.10	\$38,072.21
-540	540	1,319	14,451.52	\$14,451.52	-911	911	2,224	24,380.24	\$24,380.22
-472	472	-1,114	-12,209.26	-12,209.26	-1,035	1,035	2,443	28,772.30	\$28,772.30
-430	430	2,299	25,199.64	\$25,199.64	-978	978	5,229	57,314.53	\$57,314.55
-263	263	-2,427	-26,596.32	-26,596.32	-921	921	-8,498	-93,137.69	-93,137.77
-76	76	-0,315	-3,456.86	-3,456.86	-711	711	-2,951	-32,340.82	-32,340.82
-203	203	-2,115	-23,177.05	-23,177.05	-613	613	-6,385	-69,987.83	-69,987.78
-213	213	-0,815	-8,929.85	-8,929.85	-404	404	-1,545	-16,937.37	-16,937.74
-198	198	0,742	8,149.75	\$8,149.75	-384	384	-4,233	-47,367.75	-47,367.78
-342	342	-1,948	-21,554.05	-21,554.05	-488	488	-2,780	-30,470.19	-30,470.01
-298	298	-2,716	-29,766.43	-29,766.43	-670	670	-6,106	-66,924.53	-66,924.65
-363	363	-3,398	-37,240.52	-37,240.52	-813	813	-7,610	-83,406.46	-83,406.65
-428	428	-8,801	-8,780.22	-8,780.22	-917	917	-1,716	-18,811.83	-18,811.81
-517	517	1,521	16,673.17	\$16,673.17	-997	997	2,934	32,153.09	\$32,153.31
-654	654	0,584	6,024.46	\$6,024.46	-835	835	3,678	41,644.99	\$41,644.99
-446	446	-1,482	-16,240.43	-16,240.43	-923	923	-3,066	-33,609.68	-33,609.97
-403	403	7,051	77,284.72	\$77,284.72	-958	958	16,762	183,719.01	\$183,719.01
-354	354	5,992	65,676.19	\$65,676.19	-1,061	1,061	17,959	196,843.06	\$196,843.06
-485	485	5,199	56,978.63	\$56,978.63	-947	947	10,150	111,255.19	\$111,255.52
-475	475	5,595	61,324.30	\$61,324.30	-867	867	10,212	111,932.99	\$111,933.30
-578	578	7,842	85,955.24	\$85,955.24	-724	724	9,823	107,667.12	\$107,667.71
-598	598	5,048	55,326.69	\$55,326.69	-640	640	8,202	95,212.69	\$95,212.69
-582	582	13,535	148,351.82	\$148,351.82	-705	705	16,396	179,704.52	\$179,704.55
-727	727	7,573	83,003.51	\$83,003.51	-928	928	9,667	105,952.21	\$105,952.22
-763	763	7,638	83,712.80	\$83,712.80	-1,046	1,046	10,470	114,762.25	\$114,762.22
-808	808	12,164	133,329.24	\$133,329.24	-1,090	1,090	16,410	179,862.46	\$179,862.25
-566	566	6,290	68,617.34	\$68,617.34	-718	718	7,942	87,044.64	\$87,044.64
-546	546	5,171	56,679.35	\$56,679.35	-1,013	1,013	8,594	105,157.84	\$105,157.84
-552	552	2,906	31,855.04	\$31,855.04	-877	877	4,617	50,610.27	\$50,610.03
-612	612	-5,347	-58,601.59	-58,601.59	-866	866	-7,566	-82,923.16	-82,923.32
-416	416	-3,453	-37,852.27	-37,852.27	-535	535	-4,441	-48,680.20	-48,680.02
-303	303	-1,775	-19,455.84	-19,455.84	-780	780	-4,570	-50,084.34	-50,084.43
-332	332	-1,432	-15,695.83	-15,695.83	-581	581	-2,506	-27,467.71	-27,467.77
-361	361	-2,992	-32,511.99	-32,511.99	-590	590	-3,746	-42,930.01	-42,930.30
-368	368	-1,707	-18,708.68	-18,708.68	-648	648	-3,006	-32,943.54	-32,943.55
-462	462	-3,001	-32,895.20	-32,895.20	-853	853	-5,541	-60,735.09	-60,735.51
-262	262	-0,508	-5,569.19	-5,569.19	-842	842	-1,633	-17,897.93	-17,897.99
-239	239	-2,213	-24,257.93	-24,257.93	-893	893	-8,269	-90,637.38	-90,637.74
-523	523	-1,022	-11,197.25	-11,197.25	-959	959	-1,873	-20,531.86	-20,531.99
-300	300	-0,318	-3,479.98	-3,479.98	-925	925	-0,979	-10,949.41	-10,949.99
-92	92	0,008	82.35	\$82.35	-959	959	0,078	858.41	\$858.84
-142	142	-0,601	-6,586.17	-6,586.17	-1,074	1,074	-4,545	-49,813.72	-49,813.77
-226	226	-3,311	-36,285.23	-36,285.23	-1,036	1,036	-15,176	-166,334.08	-166,334.41
-284	284	-1,040	-11,403.23	-11,403.23	-970	970	-3,553	-38,947.67	-38,947.77
-252	252	-0,943	-10,339.33	-10,339.33	-857	857	-3,208	-35,161.92	-35,161.99
-384	384	-0,968	-10,613.34	-10,613.34	-903	903	-2,025	-22,194.05	-22,194.05
-250	250	0,977	10,704.83	\$10,704.83	-777	777	-3,035	-33,270.60	-33,270.60
-244	244	0,814	8,923.51	\$8,923.51	-1,158	1,158	3,864	42,350.12	\$42,350.01
-379	379	0,159	1,744.11	\$1,744.11	-1,113	1,113	0,467	5,121.89	\$5,121.89
-573	573	-10,808	-118,461.36	-118,461.36	-821	821	-15,486	-169,732.59	-169,732.26
-405	405	0,989	10,838.64	\$10,838.64	-1,078	1,078	2,632	28,849.51	\$28,849.95
-500	500	-1,262	-13,828.59	-13,828.59	-1,033	1,033	-2,607	-28,569.87	-28,569.99
-364	364	-5,332	-58,441.79	-58,441.79	-877	877	-12,847	-140,805.97	-140,805.97
-198	198	-2,578	-28,255.92	-28,255.92	-923	923	-12,017	-131,718.25	-131,718.83
-305	305	-3,028	-33,190.17	-33,190.17	-630	630	-6,255	-68,556.74	-68,556.67
-205	205	-1,181	-12,949.17	-12,949.17	-392	392	-2,259	-24,761.33	-24,761.33
-318	318	-1,082	-11,864.05	-11,864.05	-311	311	-1,059	-11,602.89	-11,602.29
-251	251	-1,733	-18,990.05	-18,990.05	-291	291	-2,009	-22,016.35	-22,016.63
-279	279	-1,858	-20,359.50	-20,359.50	-309	309	-2,057	-22,548.69	-22,548.67
-209	209	2,364	25,912.31	\$25,912.31	-496	496	5,611	61,495.25	\$61,495.25
-209	209	1,514	16,592.74	\$16,592.74	-821	821	5,947	65,180.08	\$65,180.01
-213	213	0,503	5,509.66	\$5,509.66	-691	691	1,631	17,874.06	\$17,874.41
-377	377	0,797	8,739.47	\$8,739.47	-1,070	1,070	2,263	24,804.33	\$24,804.33
-247	247	0,121	1,322.05	\$1,322.05	-987	987	0,482	5,282.83	\$5,282.83
-227	227	-7,943							

74	74	-1.289	-14,131.10	-\$1,413.11	-836	836	14.565	159,643.25	\$15,964.33
36	36	-0.797	-8,734.04	-\$873.40	-1,006	1,006	22.268	244,067.97	\$24,406.80
-17	17	-0.062	-682.28	-\$68.23	-988	988	-3.618	-39,652.36	-\$3,965.24
-103	103	-0.260	-2,848.89	-\$284.87	-1,053	1,053	-2.657	-29,123.01	-\$2,912.30
231	231	0.376	4,122.76	\$412.28	-1,001	1,001	-1.630	-17,865.31	-\$1,786.53
322	322	-1.311	-14,364.27	-\$1,436.43	-1,054	1,054	4.290	47,018.45	\$4,701.84
-206	206	0.503	5,512.99	\$551.30	-1,099	1,099	2.683	29,411.51	\$2,941.15
-129	129	-0.014	-153.22	-\$15.32	-1,159	1,159	-0.126	-1,376.62	-\$137.66
-102	102	0.006	61.51	\$6.15	-1,170	1,170	0.064	705.58	\$70.56
-85	85	-0.125	-1,364.87	-\$136.49	-1,101	1,101	-1.613	-17,679.02	-\$1,767.90
-81	81	-0.389	-4,282.95	-\$428.30	-1,045	1,045	-5.018	-54,997.33	-\$5,499.73
-157	157	-0.485	-5,320.17	-\$532.02	-920	920	-2.844	-31,175.52	-\$3,117.55
-25	25	-0.092	-1,003.35	-\$100.33	-990	990	-3.625	-39,732.63	-\$3,973.26
-116	116	-0.378	-4,138.49	-\$413.85	-986	986	-3.209	-35,177.19	-\$3,517.72
-260	260	1.015	11,128.27	\$1,112.83	-848	848	3.311	36,295.28	\$3,629.53
205	205	-0.851	-9,328.45	-\$932.85	-1,042	1,042	4.326	47,415.84	\$4,741.58
214	214	-0.401	-4,390.11	-\$439.01	-1,050	1,050	1.965	21,540.27	\$2,154.03
159	159	1.747	19,146.81	\$1,914.68	-938	938	-10.305	-112,954.12	-\$11,295.41
188	188	-0.030	-333.13	-\$33.31	-869	869	0.140	1,539.83	\$153.98
255	255	1.141	12,507.38	\$1,250.74	-750	750	-3.356	-36,786.42	-\$3,678.64
-44,811	59,915		-992,778.38		-221,838	221,838		-5,855,886.51	
	$\Sigma(I \times \Delta F) \Rightarrow$	-91.718	CA Total \$ \Rightarrow	-\$99,277.84		$\Sigma(I \times \Delta F) \Rightarrow$	-530.912	CA Total \$ \Rightarrow	-\$585,588.65
			Cost / MWh \Rightarrow \$	2.22				Cost / MWh \Rightarrow \$	2.64
			Cost / MWh \Rightarrow \$	1.66				Cost / MWh \Rightarrow \$	2.64

Control Area #14					Control Area #15				
14A	14B	14C	14D	14E	15A	15B	15C	15D	15E
Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (I \times \Delta F) \sum (\Delta F^2)$	FCCS @ \$.1 / 10¢	Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$n \times (I \times \Delta F) \sum (\Delta F^2)$	FCCS @ \$.1 / 10¢
I	ABS(I)	I x ΔF	FCC = -10¢	14Dx \$ / 10¢	I	ABS(I)	I x ΔF	FCC = -10¢	15Dx \$ / 10¢
MWh	MWh	MWh - Hz	MWh / Hz	\$	MWh	MWh	MWh - Hz	MWh / Hz	\$
-15	15	-0.161	-1,763.52	-\$176.35	-36	36	-0.386	-4,232.44	-\$423.24
-16	16	-0.130	-1,424.40	-\$142.44	-52	52	-0.422	-4,629.30	-\$462.93
-17	17	-0.116	-1,270.97	-\$127.10	-28	28	-0.191	-2,093.36	-\$209.34
-20	20	-0.092	-1,013.52	-\$101.35	-3	3	-0.014	-152.03	-\$15.20
-27	27	-0.452	-4,955.76	-\$495.58	-3	3	-0.050	-550.64	-\$55.06
-22	22	-0.036	-392.64	-\$39.26	-14	14	-0.023	-249.86	-\$24.99
-52	52	0.004	46.57	\$4.65	-6	6	0.000	5.37	\$0.54
-49	49	-0.144	-1,573.61	-\$157.36	2	2	0.006	64.23	\$6.42
-50	50	-0.395	-4,325.77	-\$432.58	0	0	0.000	0.00	\$0.00
-50	50	-0.297	-3,255.29	-\$325.53	2	2	0.012	130.21	\$13.02
-46	46	-0.457	-5,005.73	-\$500.57	-2	2	-0.020	-217.64	-\$21.76
-48	48	-0.523	-5,737.20	-\$573.72	3	3	0.033	358.58	\$35.86
-48	48	-0.839	-9,195.92	-\$919.59	3	3	0.052	574.75	\$57.47
-47	47	-0.512	-5,608.94	-\$560.89	2	2	0.022	238.68	\$23.87
-47	47	-0.527	-5,776.31	-\$577.63	0	0	0.000	0.00	\$0.00
-48	48	-0.327	-3,588.61	-\$358.86	-3	3	-0.020	-224.29	-\$22.43
-52	52	-0.714	-7,829.45	-\$782.95	-3	3	-0.041	-451.70	-\$45.17
-48	48	-0.418	-4,580.64	-\$458.06	1	1	0.009	95.43	\$9.54
-47	47	-0.432	-4,737.63	-\$473.76	3	3	0.038	302.40	\$30.24
-41	41	-0.227	-2,486.59	-\$248.66	-5	5	-0.028	-303.24	-\$30.32
-46	46	-0.382	-4,184.75	-\$418.47	-5	5	-0.042	-454.86	-\$45.49
-49	49	-1.009	-11,058.23	-\$1,105.82	9	9	0.185	2,031.10	\$203.11
-35	35	-0.432	-4,738.69	-\$473.87	-7	7	-0.086	-947.74	-\$94.77
-43	43	-0.968	-10,614.96	-\$1,061.50	6	6	0.135	1,481.16	\$148.12
-37	37	-0.090	-984.46	-\$98.45	-9	9	-0.022	-239.46	-\$23.95
-42	42	-0.584	-6,398.18	-\$639.82	4	4	0.056	609.35	\$60.94
-41	41	-0.386	-4,234.78	-\$423.48	14	14	0.132	1,446.02	\$144.60
-34	34	-0.423	-4,633.72	-\$463.37	21	21	0.261	2,862.00	\$286.20
-40	40	-0.371	-4,067.83	-\$406.78	14	14	0.130	1,423.74	\$142.37
-40	40	-0.094	-1,034.68	-\$103.47	2	2	0.005	51.73	\$5.17
-51	51	-0.029	-317.69	-\$31.77	-9	9	-0.005	-56.06	-\$5.61
-47	47	-0.161	-1,760.04	-\$176.00	7	7	0.024	262.27	\$26.23
-46	46	0.153	1,682.30	\$168.23	7	7	-0.023	-256.00	-\$25.60
-34	34	0.277	3,032.83	\$303.28	2	2	-0.016	-178.40	-\$17.84
-42	42	0.041	449.60	\$44.96	3	3	-0.003	-32.11	-\$3.21
-44	44	-0.004	-39.38	-\$3.94	1	1	0.000	0.90	\$0.09
-40	40	0.260	2,854.13	\$285.41	4	4	-0.026	-285.41	-\$28.54
-40	40	0.335	3,674.71	\$367.47	4	4	-0.034	-367.47	-\$36.75
-43	43	0.297	3,260.64	\$326.06	1	1	-0.007	-75.83	-\$7.58
-47	47	0.340	3,730.52	\$373.05	3	3	-0.022	-238.12	-\$23.81
-64	64	0.906	9,932.91	\$993.29	-3	3	-0.042	-465.61	-\$46.56
-66	66	0.252	2,767.00	\$276.70	-2	2	0.008	83.85	\$8.38
-59	59	0.110	1,210.36	\$121.04	-2	2	0.004	41.03	\$4.10
-40	40	0.907	9,941.27	\$994.13	5	5	-0.076	-828.44	-\$82.84
-68	68	0.020	222.43	\$22.24	-4	4	0.001	13.08	\$1.31
-67	67	-0.422	-4,621.88	-\$462.19	25	25	0.157	1,724.58	\$172.46
-30	30	0.073	802.86	\$80.29	-23	23	0.056	615.53	\$61.55
-39	39	0.019	208.74	\$20.87	10	10	-0.005	-53.52	-\$5.35
-43	43	-0.441	-4,833.23	-\$483.32	18	18	0.185	2,023.21	\$202.32
-46	46	-0.700	-7,672.88	-\$767.29	22	22	0.335	3,669.64	\$366.96
-41	41	-1.137	-12,460.25	-\$1,246.02	19	19	0.527	5,771.26	\$577.13
-33	33	-0.341	-3,732.69	-\$373.27	28	28	0.289	3,167.13	\$316.71
-29	29	0.104	1,141.78	\$114.18	14	14	-0.050	-551.21	-\$55.12
-40	40	-0.123	-1,349.16	-\$134.92	-4	4	-0.012	-134.92	-\$13.49
-47	47	0.593	6,497.72	\$649.77	10	10	-0.126	-1,382.49	-\$138.25
-55	55	-0.081	-883.15	-\$88.31	4	4	0.006	64.23	\$6.42
-52	52	-0.203	-2,226.00	-\$222.60	-6	6	-0.052	-571.62	-\$57.16
-42	42	0.256	2,810.40	\$281.04	1	1	-0.006	-66.91	-\$6.69
-49	49	0.028	305.23	\$30.52	1	1	-0.001	-6.23	-\$0.62
-45	45	-0.059	-642.02	-\$64.20	-1	1	-0.001	-14.27	-\$1.43
-48	48	-0.082	-898.77	-\$89.88	-5	5	-0.009	-93.62	-\$9.36
-42	42	0.116	1,273.62	\$127.36	-1	1	0.003	30.32	\$3.03
-49	49	-0.136	-1,486.89	-\$148.69	-5	5	-0.014	-151.62	-\$15.16
-49	49	0.175	1,922.70	\$192.27	-2	2	0.007	78.48	\$7.85
-54	54	0.699	7,658.81	\$765.88	-7	7	0.091	992.81	\$99.28
-64	64	0.109	1,198.36	\$119.84	-3	3	0.005	56.17	\$5.62
-62	62	-0.116	-1,271.90	-\$127.19	-1	1	-0.002	-20.51	-\$2.05
-62	62	-0.061	-663.70	-\$66.37	-3	3	-0.003	-32.11	-\$3.21
-54	54	-0.365	-3,989.89	-\$398.91	0	0	0.000	0.00	\$0.00
-53	53	-0.746	-8,178.25	-\$817.83	31	31	0.436	4,783.50	\$478.35
-39	39	-0.397	-4,348.00	-\$434.80	3	3	0.031	334.46	\$33.45
-50	50	-0.549	-6,021.01	-\$602.10	10	10	0.110	1,204.20	\$120.42
-39	39	-0.244	-2,678.76	-\$267.88	42	42	0.263	2,884.82	\$288.48
-46	46	-0.468	-5,128.42	-\$512.84	5	5	0.051	557.44	\$55.74
-35	35	-0.162	-1,780.00	-\$178.00	16	16	0.074	813.71	\$81.37
-38	38	-0.105	-1,152.32	-\$115.23	5	5	0.014	151.62	\$15.16
-36	36	-0.035	-385.37	-\$38.54	19	19	0.019	203.39	\$20.34
-40	40	-0.358	-3,924.62	-\$392.46	-8	8	-0.072	-784.92	-\$78.49
-62	62	-0.488	-5,353.11	-\$535.31	-11	11	-0.087	-949.75	-\$94.97
-77	77	-1.490	-16,330.89	-\$1,633.09	-3	3	-0.058	-636.27	-\$63.63
-63	63	0.021	233.55	\$23.35	-1	1	0.000	3.71	\$0.37
-64	64	-0.015	-161.29	-\$16.13	-1	1	0.000	-2.52	-\$0.25
-58	58	-0.132	-1,449.43	-\$144.94	-2	2	-0.005	-49.98	-\$5.00
-57	57	-0.093	-1,016.26	-\$101.63	-7	7	-0.011	-124.80	-\$12.48
-40	40	0.010	106.68	\$10.67	-7	7	0.002	18.67	\$1.87
-43	43	0.074	805.93	\$80.59	-2	2	0.003	37.49	\$3.75
-36	36	0.231	2,536.50	\$253.65	-2	2	0.013	140.92	\$14.09
-50	50	0.224	2,453.34	\$245.33	-6	6	0.027	294.40	\$29.44
-58	58	1.175	12,881.67	\$1,288.17	-6	6	0.122	1,332.59	\$133.26
-62	62	0.323	3,539.35	\$353.94	1	1	-0.005	-57.09	-\$5.71
-67	67	-0.763	-8,366.79	-\$836.68	-6	6	-0.068	-749.26	-\$74.93
-69	69	-0.702	-7,693.88	-\$769.39	-2	2	-0.020	-223.01	-\$22.30
-55	55	-0.085	-931.37	-\$93.14	-3	3	-0.005	-50.80	-\$5.08
-60	60	-0.742	-8,134.04	-\$813.40	7	7	0.067	949.08	\$94.91
-52	52	-0.783	-8,590.59	-\$859.06	9	9	0.135	1,485.10	\$148.51
-50	50	-0.468	-5,129.55	-\$512.95	-10	10	-0.094	-1,025.91	-\$102.59
-56	56	-0.533	-5,844.32	-\$584.43	5	5	0.048	521.81	\$52.18
-47	47	0.524	5,743.89	\$574.39	3	3	-0.033	-366.63	-\$36.66
-64	64	-0.193	-2,112.61	-\$211.26	8	8	0.024	264.08	\$26.41
-67	67	-0.898	-9,769.57	-\$976.96	25	25	0.260	2,854.32	\$285.43
-62	62	-0.419	-4,590.40	-\$459.04	20	20	0.135	1,490.77	\$149.08
-51	51	-0.075	-817.99	-\$81.80	-2	2	-0.003	-32.08	-\$3.21
-56	56	0.059	648.57	\$64.86	-14	14	0.015	162.14	\$16.21
-61	61	-0.685	-7,508.32	-\$750.83	-3	3	-0.034	-369.26	-\$36.93
-55	55	-0.876	-9,604.93	-\$960.49	-3	3	-0.048	-523.91	-\$52.39
-48	48	0.126	1,377.06	\$137.71	0	0	0.000	0.00	\$0.00
-56	56	0.320	3,502.56	\$350.26	-3	3	0.017	187.64	\$18.76
-52	52	0.766	8,395.36	\$839.54	3	3	-0.044	-484.35	-\$48.43
-57	57	0.478	5,237.51	\$523.75	-6	6	0.050	551.32	\$55.13
-59	59	0.067	736.13	\$73.61	-1	1	0.001	12.48	\$1.25
-66	66	-0.383	-4,199.52	-\$419.95	-8	8	-0.046	-509.03	-\$50.90
-68	68	-1.118	-12,253.04	-\$1,225.30	-10	10	-0.164	-1,801.92	-\$180.19
-71	71	-0.751	-8,232.07	-\$823.21	-4	4	-0.042	-463.78	-\$46.38
-58	58	-0.703	-7,709.08	-\$770.91	0	0	0.000	0.00	\$0.00
-57	57	-0.770	-8,439.37	-\$843.94	-3	3	-0.041	-444.18	-\$44.42
-59	59	-0.551	-6,042.23	-\$604.22	0	0	0.000	0.00	\$0.00

-52	52	-0.346	-3,794.60	-3379.46	-8	8	-0.053	-583.78	-558.38
-50	50	-0.630	-6,903.77	-6690.38	-2	2	-0.025	-276.15	-227.62
-30	30	-0.473	-5,184.82	-5184.48	6	6	0.095	1,036.96	\$103.70
-47	47	-1.410	-15,457.84	-15,457.78	23	23	-0.690	-7,564.48	-7564.45
-76	76	-0.581	-6,372.48	-6372.25	-25	25	-0.191	-2,096.21	-2099.82
-27	27	-0.141	-1,541.33	-1541.13	-3	3	-0.016	-171.26	-117.13
-22	22	-0.351	-3,841.97	-3841.20	-7	7	-0.112	-1,222.45	-1122.24
-20	20	-0.190	-2,083.64	-2083.36	-12	12	-0.114	-1,250.18	-1125.02
-25	25	-0.219	-2,404.13	-2404.41	-9	9	-0.079	-865.49	-866.55
-26	26	-0.298	-3,285.20	-3285.52	-12	12	-0.137	-1,507.02	-1507.70
-51	51	-0.091	-1,090.59	-1090.06	-1	1	-0.002	-19.62	-51.96
-60	60	-0.342	-3,746.32	-3746.63	8	8	0.046	499.51	\$49.95
-63	63	-0.697	-7,641.71	-7641.17	6	6	0.066	727.78	\$72.78
-59	59	-0.082	-895.64	-895.56	8	8	0.011	121.44	\$12.14
-65	65	-0.603	-6,609.04	-6609.90	5	5	0.046	508.39	\$50.84
-62	62	-0.666	-7,299.56	-7299.96	8	8	0.086	941.88	\$94.19
-61	61	-0.962	-10,543.37	-10543.36	7	7	0.012	1,209.92	\$120.99
-37	37	-0.316	-3,458.79	-3458.88	7	7	0.060	654.37	\$65.44
-30	30	-0.109	-1,199.78	-1199.98	7	7	0.026	279.95	\$27.99
-26	26	-0.133	-1,456.69	-1456.67	8	8	0.041	448.21	\$44.82
-33	33	-0.016	-176.63	-176.66	2	2	0.001	10.70	\$1.07
-33	33	0.005	59.47	\$59.85	-2	2	0.000	3.54	\$0.35
-37	37	-0.048	-571.88	-572.79	9	9	0.012	128.40	\$12.84
-35	35	-0.057	-624.66	-624.47	11	11	0.018	196.32	\$19.63
-31	31	0.098	1,078.79	\$1078.88	10	10	-0.032	-348.00	-34.80
-35	35	-0.419	-4,589.37	-4589.94	14	14	0.167	1,835.75	\$183.57
-33	33	-0.013	-147.09	-147.71	13	13	0.005	57.94	\$5.79
-28	28	0.121	1,323.74	\$1323.37	26	26	-0.112	-1,229.19	-1122.92
-55	55	-1.092	-11,970.22	-11,970.02	-8	8	-0.159	-1,741.12	-1741.11
-70	70	-1.099	-12,050.79	-12,050.08	-4	4	-0.063	-688.62	-688.86
-64	64	-0.573	-6,279.39	-6279.94	-6	6	-0.054	-588.69	-588.87
-63	63	-0.840	-9,203.81	-9203.38	7	7	0.093	1,022.65	\$102.26
-69	69	-0.976	-10,696.53	-10,696.65	8	8	0.113	1,240.18	\$124.02
-68	68	-0.325	-3,567.65	-3567.76	-2	2	-0.010	-104.93	-10.49
-53	53	0.328	3,589.47	\$3589.95	-4	4	0.025	271.66	\$27.17
-35	35	0.362	3,964.71	\$3964.47	6	6	-0.062	-679.67	-67.97
-42	42	0.554	6,068.87	\$6068.89	5	5	-0.066	-722.48	-72.25
-27	27	0.288	3,155.17	\$3155.52	15	15	-0.160	-1,752.87	-175.29
-23	23	0.215	2,353.23	\$2353.32	8	8	-0.075	-818.52	-81.85
-23	23	0.306	3,359.00	\$3359.30	15	15	-0.200	-2,180.65	-219.07
-26	26	0.145	1,593.54	\$1593.35	13	13	-0.073	-796.77	-79.68
-21	21	0.319	3,497.06	\$3497.79	17	17	-0.258	-2,831.60	-283.16
-17	17	0.098	1,076.68	\$1076.67	-2	2	0.012	126.67	\$12.67
-21	21	0.051	561.62	\$561.16	6	6	-0.015	-160.46	-16.05
-20	20	0.254	2,783.25	\$2783.33	-11	11	0.140	1,530.79	\$153.08
-42	42	0.174	1,910.43	\$1910.04	6	6	-0.025	-272.92	-27.29
-61	61	0.149	1,632.49	\$1632.25	1	1	-0.002	-26.76	-2.68
-58	58	0.137	1,590.28	\$1590.03	1	1	-0.002	-25.87	-2.59
-61	61	0.326	3,574.83	\$3574.48	4	4	-0.021	-234.42	-23.44
-74	74	-0.683	-7,483.38	-7483.34	5	5	0.046	505.63	\$50.56
-67	67	-0.278	-3,047.59	-3047.76	0	0	0.000	0.00	\$0.00
-61	61	-0.635	-6,964.53	-6964.45	-11	11	-0.115	-1,255.90	-125.59
-65	65	-0.249	-2,725.07	-2725.51	-32	32	-0.122	-1,341.57	-134.16
-76	76	-0.761	-8,338.37	-8338.94	-12	12	-0.025	-316.58	-31.66
-69	69	-0.393	-4,308.27	-4308.83	-11	11	-0.063	-686.83	-68.68
-50	50	-0.456	-4,994.37	-4994.44	-2	2	-0.018	-199.77	-19.98
-55	55	-0.515	-5,642.50	-5642.25	7	7	0.066	718.14	\$71.81
-49	49	-0.092	-1,005.21	-1005.52	-3	3	-0.006	-61.54	-6.15
-48	48	0.141	1,547.99	\$1548.00	29	29	-0.085	-935.25	-93.52
-47	47	0.329	3,610.83	\$3610.08	-14	14	0.098	1,025.57	\$102.56
-50	50	-0.166	-1,820.68	-1820.07	-4	4	-0.013	-145.65	-14.57
-45	45	0.787	8,629.81	\$8629.98	-17	17	0.297	3,260.15	\$326.01
-43	43	0.728	7,977.62	\$7977.76	-14	14	0.237	2,597.36	\$259.74
-49	49	0.525	5,756.60	\$5756.66	-14	14	0.150	1,644.74	\$164.47
-30	30	0.353	3,873.11	\$3873.31	-5	5	0.059	645.52	\$64.55
-24	24	0.326	3,569.05	\$3569.91	-18	18	0.244	2,676.81	\$267.88
-26	26	0.219	2,405.52	\$2405.55	-9	9	0.076	832.68	\$83.27
-23	23	0.535	5,862.70	\$5862.27	-16	16	0.372	4,078.40	\$407.84
-50	50	0.521	5,708.63	\$5708.86	0	0	0.000	0.00	\$0.00
-56	56	0.561	6,144.06	\$6144.41	1	1	-0.010	-109.72	-10.97
-59	59	0.888	9,735.67	\$9735.57	8	8	-0.120	-1,320.09	-132.01
-60	60	0.664	7,273.92	\$7273.39	1	1	-0.011	-121.23	-12.12
-52	52	0.492	5,398.03	\$5398.80	-4	4	0.238	415.23	\$41.52
-63	63	0.332	3,635.63	\$3635.56	3	3	-0.016	-173.13	-17.31
-38	38	-0.332	-3,636.66	-3636.87	-20	20	-0.175	-1,915.08	-191.51
-28	28	-0.232	-2,547.75	-2547.77	17	17	0.141	1,546.85	\$154.68
-23	23	-0.135	-1,476.85	-1476.68	1	1	0.006	64.21	\$6.42
-21	21	-0.091	-992.81	-992.28	8	8	0.035	378.21	\$37.82
-21	21	-0.133	-1,461.21	-1461.12	12	12	0.076	832.68	\$83.27
-32	32	-0.148	-1,626.84	-1626.68	13	13	0.060	660.90	\$66.09
-41	41	-0.266	-2,919.27	-2919.93	2	2	0.013	142.40	\$14.24
-30	30	-0.058	-637.69	-637.77	-11	11	-0.021	-233.82	-23.38
-48	48	-0.444	-4,871.89	-4871.19	8	8	0.074	811.98	\$81.20
-71	71	-0.139	-1,520.09	-1520.01	-8	8	-0.016	-171.28	-17.13
-64	64	-0.068	-742.40	-742.24	-4	4	-0.004	-46.00	-4.64
-69	69	0.006	61.76	\$61.18	-5	5	0.000	4.48	\$0.45
-71	71	-0.300	-3,293.09	-3293.31	-11	11	-0.047	-510.20	-51.02
-74	74	-1.084	-11,881.01	-11,881.10	-19	19	-0.278	-3,050.53	-305.05
-61	61	-0.223	-2,449.29	-2449.93	-5	5	-0.018	-200.76	-20.08
-67	67	-0.251	-2,748.95	-2748.89	4	4	0.015	164.12	\$16.41
-70	70	-0.177	-1,934.72	-1934.47	11	11	0.028	304.03	\$30.40
-88	88	-0.344	-3,768.10	-3768.81	-10	10	-0.039	-428.19	-42.82
-80	80	0.267	2,925.74	\$2925.57	-11	11	0.037	402.29	\$40.23
-71	71	0.030	326.73	\$326.67	-1	1	0.000	4.60	\$0.46
-64	64	-1.207	-13,231.29	-13,231.13	1	1	0.019	206.74	\$20.67
-55	55	0.134	1,471.91	\$1471.19	-1	1	0.002	26.76	\$2.68
-54	54	-0.136	-1,493.49	-1493.35	-13	13	-0.033	-359.54	-35.95
-69	69	-1.011	-11,078.24	-11,078.82	5	5	0.073	802.77	\$80.28
-66	66	-0.859	-9,418.64	-9418.86	-9	9	-0.117	-1,284.36	-128.44
-61	61	-0.606	-6,638.03	-6638.80	-4	4	-0.040	-435.28	-43.53
-62	62	-0.357	-3,916.33	-3916.63	4	4	0.023	252.67	\$25.27
-58	58	-0.197	-2,163.88	-2163.39	-3	3	-0.010	-111.93	-11.19
-61	61	-0.421	-4,615.11	-4615.51	-2	2	-0.014	-151.32	-15.13
-43	43	-0.286	-3,137.84	-3137.78	-8	8	-0.053	-583.78	-58.38
-22	22	0.249	2,727.61	\$2727.76	-8	8	0.090	991.86	\$99.19
-49	49	0.355	3,890.16	\$3890.22	-3	3	0.022	238.17	\$23.82
-64	64	0.151	1,655.49	\$1655.55	-3	3	0.007	77.60	\$7.76
-56	56	0.118	1,298.17	\$1298.82	-3	3	0.006	69.54	\$6.95
-49	49	0.024	262.27	\$262.23	-1	1	0.000	5.35	\$0.54
-62	62	-2.170	-23,779.91	-23,779.99	-5	5	-0.175	-1,917.74	-191.77
-53	53	-0.531	-5,814.91	-5814.49	-3	3	-0.030	-329.15	-32.91
-47	47	-0.344	-3,772.59	-3772.26	0	0	0.000	0.00	\$0.00
-48	48	-0.449	-4,924.37	-4924.44	-4	4	-0.037	-410.36	-41.04
-44	44	-0.093	-1,019.99	-1020.00	-3	3	-0.006	-69.54	-6.95
-51	51	-0.461	-5,049.54	-5049.95	-4	4	-0.036	-396.04	-39.60
-45	45	-0.640	-7,015.44	-7015.54	2	2	0.028	311.60	\$31.16
-45	45	-0.193	-2,120.17	-2120.02					

-26	26	0.453	4,964.98	\$496.50	-5	5	0.087	954.80	\$95.48
-51	51	1.129	12,373.23	\$1,237.32	-8	8	0.177	1,940.90	\$194.09
-77	77	-0.282	-3,090.32	-\$309.03	-15	15	-0.055	-602.01	-\$60.20
-71	71	-0.179	-1,963.66	-\$196.37	-10	10	-0.025	-276.57	-\$27.66
-54	54	-0.088	-963.76	-\$96.38	-5	5	-0.008	-89.24	-\$8.92
-61	61	0.248	2,721.18	\$272.12	0	0	0.000	0.00	\$0.00
-59	59	0.144	1,578.96	\$157.90	-4	4	0.010	107.05	\$10.70
-53	53	-0.006	-62.95	-\$6.30	-2	2	0.000	-2.38	-\$0.24
-57	57	0.003	34.37	\$3.44	-6	6	0.000	3.62	\$0.36
-59	59	-0.086	-947.38	-\$94.74	-2	2	-0.003	-32.11	-\$3.21
-60	60	-0.288	-3,157.74	-\$315.77	-31	31	-0.149	-1,631.50	-\$163.15
-61	61	-0.189	-2,067.07	-\$206.71	-30	30	-0.093	-1,016.59	-\$101.66
-64	64	-0.234	-2,568.57	-\$256.86	-5	5	-0.018	-200.67	-\$20.07
-60	60	-0.195	-2,140.60	-\$214.06	-9	9	-0.029	-321.09	-\$32.11
-57	57	0.223	2,439.66	\$243.97	-4	4	0.016	171.20	\$17.12
-58	58	0.241	2,639.27	\$263.93	-3	3	0.012	136.51	\$13.65
-67	67	0.125	1,374.47	\$137.45	-6	6	0.011	123.09	\$12.31
-66	66	-0.725	-7,947.73	-\$794.77	0	0	0.000	0.00	\$0.00
-30	30	0.005	53.16	\$5.32	-2	2	0.000	3.54	\$0.35
-37	37	-0.166	-1,814.80	-\$181.48	10	10	0.045	490.49	\$49.05
-12,901	12,901		-485,001.79		-209	2,027		6,658.87	
	$\Sigma(I \times \Delta F) \Rightarrow$	-44.084	CA Total \$ \Rightarrow	-\$48,500.18		$\Sigma(I \times \Delta F) \Rightarrow$	0.563	CA Total \$ \Rightarrow	\$665.89
			Cost / MWh \Rightarrow \$	3.76				Cost / MWh \Rightarrow \$	3.19
			Cost / MWh \Rightarrow \$	3.76				Cost / MWh \Rightarrow \$	0.33

Control Area #16						Control Area #17						Interconnection Totals		
16A	16B	16C	16D	16E	FCC\$	17A	17B	17C	17D	17E	FCC\$	F	G	H
Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$\frac{n \times (I \times \Delta F)}{\Delta F^2}$	$\frac{n \times (I \times \Delta F)}{\Delta F^2}$	@ \$.1 / 10 β	Inadvertent	Absolute Inadvertent	Inadvertent x Freq Error	$\frac{n \times (I \times \Delta F)}{\Delta F^2}$	$\frac{n \times (I \times \Delta F)}{\Delta F^2}$	@ \$.1 / 10 β	Inadvertent	Inadvertent Balance	FCC\$
I	ABS(I)	I x ΔF	FCC = -10 β	16Dx \$ / 10 β	\$	I	ABS(I)	I x ΔF	FCC = -10 β	17Dx \$ / 10 β	\$	I	MW=0	D x \$ / 10 β
MWh	MWh	MWh - Hz	MWh / Hz	MWh / Hz	\$	MWh	MWh	MWh - Hz	MWh / Hz	MWh / Hz	\$	MWh	MWh=0	D x \$ / 10 β
-44	44	-0.472	-5.172.98	-517.30		65	65	0.697	7.641.91	\$764.19		0	OK	0
-40	40	-0.325	-3.561.00	-356.10		48	48	0.390	4.273.20	\$427.32		0	OK	0
-42	42	-0.286	-3.140.04	-314.00		55	55	0.375	4,111.95	\$411.20		0	OK	0
-30	30	-0.139	-1.520.27	-152.03		-2	2	-0.009	-101.35	-\$10.14		0	OK	0
-49	49	-0.821	-8.993.79	-899.38		-70	70	-1.172	-12,848.27	-\$1,284.83		0	OK	0
-34	34	-0.055	-606.81	-60.68		105	105	0.171	1,873.98	\$187.40		0	OK	0
-55	55	0.004	49.23	\$4.92		137	137	0.013	-122.08	-\$12.26		0	OK	0
-46	46	-0.135	-1,477.27	-147.73		-38	38	-0.111	-1,220.35	-\$122.04		0	OK	0
-51	51	-0.403	-4,412.29	-441.23		-119	119	-0.939	-10,295.34	-\$1,029.53		0	OK	0
-38	38	-0.226	-2,474.02	-247.40		-107	107	-0.636	-6,966.32	-\$696.63		0	OK	0
-65	65	-0.645	-7,073.31	-707.33		-118	118	-1.172	-12,840.79	-\$1,284.08		0	OK	0
-54	54	-0.589	-6,454.35	-645.44		-146	146	-1.592	-17,450.66	-\$1,745.07		0	OK	0
-39	39	-0.682	-7,471.69	-747.17		-176	176	-3.076	-33,716.39	-\$3,371.84		0	OK	0
-30	30	-0.327	-3,580.17	-358.02		-131	131	-1.426	-15,633.43	-\$1,563.34		0	OK	0
-53	53	-0.594	-6,513.71	-651.37		-135	135	-1.514	-16,591.52	-\$1,659.15		0	OK	0
-38	38	-0.259	-2,840.98	-284.10		-114	114	-0.778	-8,522.95	-\$852.30		0	OK	0
-57	57	-0.783	-8,582.28	-858.23		-3	3	-0.041	-451.70	-\$45.17		0	OK	0
-47	47	-0.409	-4,485.21	-448.52		1	1	0.009	95.43	\$9.54		0	OK	0
-37	37	-0.340	-3,729.63	-372.96		-37	37	-0.340	-3,729.63	-\$372.96		0	OK	0
-40	40	-0.221	-2,425.94	-242.59		-35	35	-0.194	-2,122.70	-\$212.27		0	OK	0
-37	37	-0.307	-3,365.99	-336.60		-56	56	-0.465	-5,094.47	-\$509.45		0	OK	0
-44	44	-0.906	-9,929.84	-992.98		69	69	1.421	15,571.80	\$1,557.18		0	OK	0
-23	23	-0.284	-3,113.99	-311.40		-145	145	-1.791	-19,631.70	-\$1,963.17		0	OK	0
-10	30	-0.776	-7,405.78	-740.58		118	118	2.658	29,129.41	\$2,912.94		0	OK	0
-18	18	-0.044	-478.93	-47.89		87	87	-0.211	-2,314.82	-\$231.48		0	OK	0
-27	27	-0.340	-3,729.63	-372.96		-9	9	-0.125	-1,371.04	-\$137.10		0	OK	0
-43	43	-0.405	-4,441.35	-444.14		-71	71	-0.669	-7,333.40	-\$733.34		0	OK	0
-48	48	-0.597	-6,541.72	-654.17		4	4	0.050	545.14	\$54.51		0	OK	0
-45	45	-0.418	-4,576.31	-457.63		-38	38	-0.353	-3,864.44	-\$386.44		0	OK	0
-33	33	-0.078	-853.61	-85.36		28	28	0.066	724.27	\$72.43		0	OK	0
-56	56	-0.032	-348.84	-34.88		47	47	0.027	292.78	\$29.28		0	OK	0
-62	62	-0.212	-2,322.95	-232.29		-44	44	-0.150	-1,648.54	-\$164.85		0	OK	0
-51	51	0.170	1,865.16	186.52		-65	65	-0.217	-2,377.17	-\$237.72		0	OK	0
-41	41	0.334	3,657.23	365.72		-94	94	-0.765	-8,384.88	-\$838.49		0	OK	0
-47	47	0.046	503.13	50.31		-20	20	-0.020	-214.10	-\$21.41		0	OK	0
-50	50	-0.004	-44.76	-\$4.48		-53	53	-0.004	-47.44	-\$4.74		0	OK	0
-46	46	0.299	3,282.25	328.23		-63	63	-0.540	-5,922.33	-\$592.23		0	OK	0
-42	42	0.352	3,858.45	385.85		72	72	0.603	6,614.49	\$661.45		0	OK	0
-29	29	0.201	2,199.04	219.90		-136	136	-0.941	-10,312.73	-\$1,031.27		0	OK	0
-31	31	0.224	2,460.56	246.06		-76	76	-0.550	-6,032.33	-\$603.23		0	OK	0
-66	66	0.935	10,243.31	1,024.33		-23	23	-0.326	-3,569.64	-\$356.96		0	OK	0
-51	51	0.195	2,138.13	213.81		-53	53	-0.203	-2,221.98	-\$222.20		0	OK	0
-64	64	0.120	1,312.93	131.29		-147	147	-0.275	-3,015.64	-\$301.56		0	OK	0
-60	60	0.007	9,941.27	994.13		-67	67	-1.013	-11,101.08	-\$1,110.11		0	OK	0
-72	72	0.021	235.51	23.55		20	20	-0.006	-65.42	-\$6.54		0	OK	0
-40	40	-0.252	-2,759.33	-275.93		-148	148	-0.931	-10,209.52	-\$1,020.95		0	OK	0
-40	40	0.098	1,070.48	107.05		-132	132	-0.322	-3,532.59	-\$353.26		0	OK	0
-42	42	0.021	224.80	22.48		-134	134	-0.065	-717.22	-\$71.72		0	OK	0
-36	36	-0.369	-4,046.42	-404.64		-92	92	-0.943	-10,340.86	-\$1,034.09		0	OK	0
-40	40	-0.609	-6,572.07	-657.21		80	80	1.217	13,344.13	\$1,334.41		0	OK	0
-36	36	-0.998	-10,840.70	-1,084.07		35	35	0.670	7,036.80	\$703.68		0	OK	0
-31	31	-0.320	-3,506.47	-350.65		24	24	-0.248	-2,714.69	-\$271.47		0	OK	0
-27	27	0.097	1,063.04	106.30		-138	138	-0.496	-5,433.31	-\$543.33		0	OK	0
-40	40	-0.123	-1,349.16	-134.92		-140	140	-0.431	-4,722.07	-\$472.21		0	OK	0
-75	75	0.946	10,368.70	1,036.87		-5	5	0.063	691.25	\$69.12		0	OK	0
-68	68	-0.100	-1,091.89	-109.19		61	61	0.089	979.49	\$97.95		0	OK	0
-71	71	-0.287	-3,040.17	-304.02		75	75	0.293	3,211.45	\$321.14		0	OK	0
-71	71	0.433	4,750.92	475.09		41	41	-0.250	-2,743.49	-\$274.35		0	OK	0
-48	48	0.027	299.00	29.90		-27	27	-0.015	-168.19	-\$16.82		0	OK	0
-51	51	-0.066	-727.62	-72.76		-14	14	-0.018	-199.74	-\$19.97		0	OK	0
-39	39	-0.067	-730.25	-73.02		-136	136	-0.232	-2,546.51	-\$254.65		0	OK	0
-47	47	0.130	1,425.24	142.52		-112	112	-0.310	-3,396.32	-\$339.63		0	OK	0
-24	24	-0.066	-727.78	-72.78		-16	16	-0.044	-485.19	-\$48.52		0	OK	0
-28	28	0.100	1,098.69	109.87		-61	61	-0.218	-2,393.57	-\$239.36		0	OK	0
-73	73	0.945	10,353.58	1,035.36		66	66	-0.854	-9,360.77	-\$936.08		0	OK	0
-80	80	0.137	1,497.95	149.79		18	18	-0.031	-337.04	-\$33.70		0	OK	0
-74	74	-0.139	-1,518.08	-151.81		55	55	0.103	1,128.30	\$112.83		0	OK	0
-73	73	-0.071	-781.45	-78.15		78	78	0.076	834.98	\$83.50		0	OK	0
-42	42	-0.284	-3,109.62	-310.96		76	76	0.513	5,626.94	\$562.69		0	OK	0
-46	46	-0.648	-7,098.10	-709.81		150	150	2.112	23,145.99	\$2,314.60		0	OK	0
-32	32	-0.325	-3,567.59	-356.76		-44	44	-0.448	-4,905.44	-\$490.54		0	OK	0
-23	23	-0.253	-2,769.66	-276.97		78	78	0.857	9,392.77	\$939.28		0	OK	0
-19	19	-0.119	-1,305.04	-130.50		93	93	0.583	6,387.82	\$638.78		0	OK	0
-25	25	-0.254	-2,787.18	-278.72		75	75	0.763	8,361.55	\$836.15		0	OK	0
-27	27	-0.125	-1,373.14	-137.31		18	18	0.084	915.43	\$91.54		0	OK	0
-33	33	-0.091	-1,000.70	-100.07		22	22	0.067	667.13	\$66.71		0	OK	0
-37	37	-0.036	-396.08	-39.61		2	2	0.002	21.41	\$2.14		0	OK	0
-27	27	-0.242	-2,649.12	-264.91		8	8	0.072	784.92	\$78.49		0	OK	0
-71	71	-0.559	-6,130.18	-613.02		10	10	0.079	863.41	\$86.34		0	OK	0
-80	80	-1.548	-16,967.16	-1,696.72		190	190	3.677	40,297.00	\$4,029.70		0	OK	0
-74	74	0.025	274.32	27.43		96	96	-0.032	-355.88	-\$35.59		0	OK	0
-60	60	-0.014	-151.21	-15.12		69	69	0.016	173.89	\$17.39		0	OK	0
-66	66	-0.150	-1,649.35	-164.93		47	47	0.107	1,174.54	\$117.45		0	OK	0
-72	72	-0.117	-1,283.70	-128.37		72	72	0.117	1,283.70	\$128.37		0	OK	0
-67	67	0.016	178.69	17.87		19	19	-0.005	-50.67	-\$5.07		0	OK	0
-68	68	0.116	1,274.50	127.45		136	136	-0.233	-2,548.99	-\$254.90		0	OK	0
-69	69	0.444	4,861.62	486.16		127	127	-0.816	-8,948.19	-\$894.82		0	OK	0
-66	66	0.295	3,238.41	323.84		95	95	-0.425	-4,661.35	-\$466.13		0	OK	0
-76	76	1.540	16,879.43	1,687.94		242	242	-4.904	-53,747.66	-\$5,374.77		0	OK	0
-75	75	0.391	4,281.47	428.15		57	57	-0.297	-3,253.92	-\$325.39		0	OK	0
-78	78	-0.889	-9,740.44	-974.04		127	127	1.447	15,859.44	\$1,585.94		0	OK	0
-64	64	-0.												

-43	43	-0.286	-3,137.84	-8313.78	-136	136	-0.905	-9,924.34	-8992.43	0	OK	0
-39	39	-0.491	-5,384.94	-8538.49	-108	108	-1.361	-14,912.15	-14,912.15	0	OK	0
-52	52	-0.820	-9,987.01	-8998.70	-76	76	-1.198	-13,134.87	-13,134.87	0	OK	0
-54	54	-1.620	-17,760.07	-8177.01	65	65	1.650	18,088.96	\$1,808.96	0	OK	0
-32	32	-0.245	-2,683.15	-8268.31	56	56	0.428	4,695.51	\$469.55	0	OK	0
-46	46	-0.240	-2,625.97	-8262.60	8	8	0.042	456.69	\$45.67	0	OK	0
-37	37	-0.590	-6,461.50	-8646.15	-74	74	-1.179	-12,922.99	-12,922.99	0	OK	0
-35	35	-0.333	-3,646.37	-8364.64	18	18	0.171	1,875.28	\$187.53	0	OK	0
-43	43	-0.377	-4,135.11	-8413.51	2	2	0.018	192.33	\$19.23	0	OK	0
-38	38	-0.438	-4,772.21	-8477.22	12	12	0.137	1,507.02	\$150.70	0	OK	0
-61	61	-1.109	-1,196.79	-8119.68	12	12	0.021	235.43	\$23.54	0	OK	0
-79	79	-0.450	-4,932.66	-8493.27	-73	73	-0.416	-4,558.03	-4,558.03	0	OK	0
-71	71	-0.786	-8,612.09	-8861.21	-131	131	-1.450	-15,889.91	-15,889.91	0	OK	0
-56	56	-0.078	-850.10	-885.01	-200	200	-0.277	-3,036.08	-3,036.08	0	OK	0
-49	49	-0.455	-4,982.20	-8498.22	-65	65	-0.510	-5,592.27	-5,592.27	0	OK	0
-50	50	-0.537	-5,896.74	-8586.67	-106	106	-1.139	-12,479.89	-12,479.89	0	OK	0
-31	31	-0.448	-5,358.21	-8535.72	-28	28	-0.410	-4,393.98	-4,393.98	0	OK	0
-30	30	-0.256	-2,804.42	-8280.44	9	9	0.077	841.33	\$84.13	0	OK	0
-34	34	-0.124	-1,359.75	-8135.98	-42	42	-0.153	-1,679.70	-1,679.70	0	OK	0
-42	42	-0.215	-2,353.11	-8235.31	13	13	0.066	728.34	\$72.83	0	OK	0
-55	55	-0.027	-294.38	-829.44	14	14	0.007	74.93	\$7.49	0	OK	0
-47	47	0.008	83.28	-88.33	14	14	-0.002	-24.81	-\$2.48	0	OK	0
-44	44	-0.252	-2,625.75	-8262.77	-43	43	-0.056	-612.48	-\$61.25	0	OK	0
-37	37	-0.060	-660.36	-866.04	59	59	0.096	1,053.00	\$105.30	0	OK	0
-33	33	0.105	1,148.39	\$114.84	-29	29	0.092	1,009.19	\$100.92	0	OK	0
-30	30	-0.359	-3,933.75	-8393.37	148	148	1.771	19,406.50	\$1,940.65	0	OK	0
-19	19	-0.008	-84.69	-88.47	32	32	0.013	142.63	\$14.26	0	OK	0
-46	46	0.199	2,174.72	\$217.47	-211	211	-0.910	-9,975.36	-9,975.36	0	OK	0
-23	23	-0.457	-5,005.73	-8500.53	137	137	2.720	29,816.74	\$2,981.67	0	OK	0
-40	40	-0.628	-6,886.16	-8688.62	170	170	2.670	29,266.19	\$2,926.62	0	OK	0
-50	50	-0.448	-4,905.77	-8490.58	45	45	0.403	4,415.19	\$441.52	0	OK	0
-53	53	-0.706	-7,742.89	-8774.29	94	94	1.253	13,732.68	\$1,373.27	0	OK	0
-45	45	-0.636	-6,976.00	-8697.60	79	79	1.117	12,246.75	\$1,224.68	0	OK	0
-42	42	-0.201	-2,203.55	-8220.35	135	135	0.646	7,082.83	\$708.28	0	OK	0
-38	38	0.236	2,590.76	\$259.07	128	128	-0.793	-8,693.07	-8,693.07	0	OK	0
-51	51	0.527	5,777.15	\$577.72	128	128	-1.323	-14,499.52	-14,499.52	0	OK	0
-51	51	0.672	7,369.34	\$736.93	86	86	-1.134	-12,426.73	-12,426.73	0	OK	0
-52	52	0.554	6,076.61	\$607.66	99	99	-1.056	-11,568.94	-11,568.94	0	OK	0
-42	42	0.392	4,297.21	\$429.72	-3	3	0.028	306.94	\$30.69	0	OK	0
-58	58	0.773	8,470.52	\$847.05	4	4	-0.053	-584.17	-\$58.42	0	OK	0
-61	61	0.341	3,738.69	\$373.87	36	36	-0.201	-2,206.44	-\$220.64	0	OK	0
-46	46	0.699	7,861.99	\$786.20	138	138	-2.097	-22,985.96	-22,985.96	0	OK	0
-43	43	0.248	2,723.36	\$272.34	130	130	-0.751	-8,233.40	-8,233.40	0	OK	0
-54	54	0.132	1,444.17	\$144.42	125	125	-0.305	-3,342.97	-\$334.30	0	OK	0
-57	57	0.724	7,932.28	\$793.23	31	31	-0.394	-4,314.05	-\$431.40	0	OK	0
-66	66	0.282	3,093.07	\$309.31	132	132	-0.348	-4,004.20	-\$400.42	0	OK	0
-63	63	0.153	1,686.01	\$168.60	161	161	-0.589	-6,308.69	-\$630.87	0	OK	0
-65	65	0.153	1,681.35	\$168.14	105	105	-0.248	-2,716.03	-\$271.60	0	OK	0
-59	59	0.315	3,457.63	\$345.76	158	158	-0.845	-9,259.40	-\$925.94	0	OK	0
-50	50	-0.461	-5,056.33	-8506.63	120	120	1.107	12,135.20	\$1,213.52	0	OK	0
-29	29	-0.120	-1,319.11	-8131.91	82	82	0.340	3,729.88	\$372.99	0	OK	0
-39	39	-0.406	-4,452.73	-8445.27	194	194	2.021	22,149.49	\$2,214.95	0	OK	0
-43	43	-0.164	-1,802.74	-8180.27	106	106	0.405	4,443.96	\$444.40	0	OK	0
-45	45	-0.450	-4,937.19	-8493.72	167	167	1.672	18,222.46	\$1,822.25	0	OK	0
-48	48	-0.273	-2,997.06	-8299.71	92	92	0.524	5,744.36	\$574.44	0	OK	0
-65	65	-0.592	-6,492.68	-8649.27	117	117	1.066	11,686.82	\$1,168.68	0	OK	0
-46	46	-0.431	-4,719.18	-8471.92	0	0	0.000	0.00	\$0.00	0	OK	0
-40	40	-0.075	-820.58	-882.06	87	87	0.163	1,784.76	\$178.48	0	OK	0
-28	28	0.082	903.00	\$90.30	14	14	-0.041	-451.50	-\$45.15	0	OK	0
-36	36	0.235	2,755.74	\$275.74	-37	37	0.259	2,842.57	\$284.26	0	OK	0
-37	37	-0.123	-1,347.30	-8134.73	-109	109	-0.362	-3,969.07	-\$396.91	0	OK	0
-29	29	0.507	5,561.43	\$556.14	-114	114	1.595	21,862.18	\$2,186.22	0	OK	0
-34	34	0.576	6,307.88	\$630.79	-72	72	1.219	13,357.87	\$1,335.79	0	OK	0
-42	42	0.450	4,934.23	\$493.42	124	124	-1.329	-14,567.73	-14,567.73	0	OK	0
-37	37	0.436	4,776.84	\$477.68	-14	14	0.165	1,807.45	\$180.75	0	OK	0
-42	42	0.570	6,245.88	\$624.59	31	31	-0.421	-4,610.06	-\$461.01	0	OK	0
-48	48	0.405	4,440.95	\$444.10	139	139	-1.173	-12,869.26	-12,869.26	0	OK	0
-38	38	0.884	9,686.20	\$968.62	35	35	-0.814	-8,921.50	-\$892.15	0	OK	0
-42	42	0.438	4,795.25	\$479.53	-2	2	0.021	228.35	\$22.83	0	OK	0
-61	61	0.611	6,692.64	\$669.26	81	81	-0.811	-8,886.94	-\$888.69	0	OK	0
-54	54	0.813	8,910.62	\$891.06	-34	34	0.512	5,610.39	\$561.04	0	OK	0
-57	57	0.630	6,910.23	\$691.02	44	44	-0.487	-5,334.21	-\$533.42	0	OK	0
-63	63	0.597	6,539.92	\$653.99	75	75	-0.710	-7,985.62	-\$798.56	0	OK	0
-74	74	0.390	4,270.42	\$427.04	-53	53	0.279	3,058.55	\$305.85	0	OK	0
-30	30	-0.262	-2,872.63	-8287.26	85	85	0.743	8,139.11	\$813.91	0	OK	0
-41	41	-0.340	-3,730.63	-8373.06	-43	43	-0.357	-3,912.61	-\$391.26	0	OK	0
-45	45	-0.264	-2,889.48	-8288.95	-93	93	-0.545	-5,971.59	-5,971.59	0	OK	0
-48	48	-0.207	-2,269.28	-8226.93	-95	95	-0.410	-4,491.28	-4,491.28	0	OK	0
-50	50	-0.317	-3,479.07	-8347.91	-3	3	-0.019	-2,020.87	-\$202.87	0	OK	0
-50	50	-0.232	-2,541.94	-8254.19	-72	72	-0.334	-3,660.39	-\$366.04	0	OK	0
-47	47	-0.305	-3,346.48	-8334.65	-64	64	-0.416	-4,556.91	-4,556.91	0	OK	0
-38	38	-0.074	-807.75	-880.77	-17	17	-0.033	-361.36	-\$36.14	0	OK	0
-70	70	-0.648	-7,104.83	-8710.48	-12	12	-0.111	-1,217.97	-\$121.80	0	OK	0
-63	63	-0.123	-1,348.81	-8134.88	37	37	0.072	792.16	\$79.22	0	OK	0
-51	51	-0.054	-591.60	-881.60	41	41	0.043	475.60	\$47.56	0	OK	0
-58	58	0.005	51.92	\$5.19	22	22	-0.002	-19.69	-\$1.97	0	OK	0
-69	69	-0.292	-3,200.32	-8320.03	-33	33	-0.140	-1,530.59	-\$153.06	0	OK	0
-70	70	-1.025	-11,238.79	-11,238.88	144	144	2.109	23,119.80	\$2,311.98	0	OK	0
-68	68	-0.249	-2,730.35	-8273.04	6	6	0.022	240.91	\$24.09	0	OK	0
-70	70	-0.262	-2,872.04	-8287.20	-14	14	-0.052	-574.41	-\$57.44	0	OK	0
-66	66	-0.166	-1,824.17	-8182.42	-51	51	-0.128	-1,409.58	-\$140.96	0	OK	0
-55	55	-0.215	-2,355.06	-8235.51	17	17	0.066	727.93	\$72.79	0	OK	0
-76	76	0.254	2,779.46	\$277.95	-30	30	0.100	1,097.15	\$109.72	0	OK	0
-71	71	0.030	326.73	\$32.67	-146	146	0.061	671.87	\$67.19	0	OK	0
-69	69	-1.301	-14,264.98	-14,264.98	44	44	0.830	9,096.51	\$909.65	0	OK	0
-51	51	0.125	1,364.87	\$136.49	37	37	-0.090	-990.20	-\$99.02	0	OK	0
-51	51	-0.129	-1,410.52	-8141.05	47	47	0.119	1,299.89	\$129.99	0	OK	0
-63	63	-0.923	-10,114.91	-10,114.91	1	1	0.015	160.55	\$16.06	0	OK	0
-26	26	-0.339	-3,710.37	-8371.04	94	94	1.224	13,414.43	\$1,341.44	0	OK	0
-54	54	-0.536	-5,876.29	-8587.63	52	52	0.516	5,658.65	\$565.87	0	OK	0
-38	38	-0.219	-2,400.33	-8240.03	-89	89	-0.513	-5,621.83	-5,621.83	0	OK	0
-51	51	-0.174	-1,902.73	-8190.27	23	23	0.078	858.09	\$85.81	0	OK	0
-57	57	-0.393	-4,312.48	-8431.25	40	40	0.276					

-53	53	0.923	10,120.92	\$1,012.09	-78	78	1.359	14,894.94	\$1,489.49	0	OK	0
-58	58	1.284	14,071.51	\$1,407.15	-173	173	3.829	41,971.93	\$4,197.19	0	OK	0
-62	62	-0.227	-2,488.31	-\$248.83	192	192	0.703	7,705.72	\$770.57	0	OK	0
-51	51	-0.129	-1,410.52	-\$141.05	50	50	0.126	1,382.86	\$138.29	0	OK	0
-52	52	-0.085	-928.07	-\$92.81	61	61	0.099	1,088.70	\$108.87	0	OK	0
-63	63	0.256	2,810.40	\$281.04	-62	62	0.252	2,765.79	\$276.58	0	OK	0
-59	59	0.144	1,578.96	\$157.90	18	18	-0.044	-481.72	-\$48.17	0	OK	0
-76	76	-0.008	-90.27	-\$9.03	-7	7	-0.001	-8.31	-\$0.83	0	OK	0
-71	71	0.004	42.82	\$4.28	63	63	-0.003	-37.99	-\$3.80	0	OK	0
-66	66	-0.097	-1,059.78	-\$105.99	23	23	0.034	369.32	\$36.93	0	OK	0
-68	68	-0.327	-3,578.77	-\$357.88	45	45	0.216	2,368.31	\$236.83	0	OK	0
-67	67	-0.207	-2,270.39	-\$227.04	-65	65	-0.201	-2,202.62	-\$220.26	0	OK	0
-68	68	-0.249	-2,729.11	-\$272.91	7	7	0.026	280.94	\$28.09	0	OK	0
-68	68	-0.221	-2,426.01	-\$242.60	160	160	0.521	5,708.27	\$570.83	0	OK	0
-65	65	0.254	2,782.07	\$278.21	33	33	-0.129	-1,412.43	-\$141.24	0	OK	0
-67	67	0.278	3,048.81	\$304.88	115	115	-0.477	-5,233.03	-\$523.30	0	OK	0
-46	46	0.086	943.67	\$94.37	-45	45	0.084	923.15	\$92.32	0	OK	0
-37	37	-0.407	-4,455.55	-\$445.55	16	16	0.176	1,926.72	\$192.67	0	OK	0
-46	46	0.007	81.51	\$8.15	46	46	-0.007	-81.51	-\$8.15	0	OK	0
-55	55	-0.246	-2,697.67	-\$269.77	-2	2	-0.009	-98.10	-\$9.81	0	OK	0
-13,288	13,288		-386,104.92		3,790	19,714		11,620.96		0	OK	\$0.00
	$\Sigma (I \times \Delta F) \Rightarrow$	-34.981	CA Total \$ \Rightarrow	-\$38,610.49		$\Sigma (I \times \Delta F) \Rightarrow$	1.069	CA Total \$ \Rightarrow	\$1,162.10	0	OK	\$0.00
			Cost / MWh \Rightarrow \$	2.91				Cost / MWh \Rightarrow \$	0.31			
			Cost / MWh \Rightarrow \$	2.91				Cost / MWh \Rightarrow \$	0.06			