

TABLE A-I: Generating Unit Sample Description

Sample Pt. #	Plant	Unit #	State	1st Year	MW
1	AB BROWN	1	IN	1980	250
2	AMES TWO	1	IA	1983	65
3	BELLE RIVER	1	MI	1985	655
4	BELLE RIVER	2	MI	1986	655
5	BRANDON SHORES	1	MD	1985	620
6	BRUCE MANSFIELD	1	PA	1977	780
7	BRUCE MANSFIELD	2	PA	1978	780
8	BRUCE MANSFIELD	3	PA	1981	780
9	COUNCIL BLUFFS	1	IA	1979	700
10	CRYSTAL RIVER	1	FL	1983	685
11	CRYSTAL RIVER	2	FL	1985	685
12	DEERHAVEN	1	FL	1982	235
13	DUCK CREEK	1	IL	1977	380
14	EAST BEND	1	KY	1982	600
15	GREEN	1	KY	1980	263
16	GREEN	2	KY	1982	263
17	HAVANA	1	IL	1979	426
18	HOMER CITY	1	PA	1978	650
19	IATAN	1	MO	1981	670
20	INDEPENDENCE	2	AR	1985	815
21	JH CAMPBELL	1	MI	1981	770
22	KILLEN	1	OH	1983	600
23	LANSING	1	IA	1978	260
24	LOUISA	1	IA	1984	650
25	MADGETT	1	WI	1980	349
26	MARION	1	IL	1979	170
27	MAYO	1	NC	1984	705
28	MCINTOSH	1	FL	1983	334
29	MEROM	1	IN	1984	450
30	MEROM	2	IN	1983	450
31	MILLER	1	AL	1979	634
32	MILLER	2	AL	1986	634
33	MOUNTAINEER	1	WV	1981	1300
34	NEWTON	1	IL	1978	550
35	NEWTON	2	IL	1983	562
36	OTTUMWA	1	IA	1982	675
37	PETERSBURG	1	IN	1978	515
38	PLEASANT PRAIRE	1	WI	1981	580
39	PLEASANT PRAIRE	2	WI	1986	580
40	PLEASANTS	1	WV	1980	626
41	PLEASANTS	2	WV	1981	626
42	ROCKPORT	1	IN	1985	1300
43	SHERER	1	GA	1983	808
44	SHERER	2	GA	1985	808
45	SHERBURNE CO	1	MN	1977	700
46	SHERBURNE CO	2	MN	1978	700
47	SOUTHWEST	1	MO	1977	194
48	THOMAS HILL	1	MO	1983	630
49	VJ DANIEL	1	MS	1978	505
50	VJ DANIEL	2	MS	1982	505
51	WESTON	1	WI	1982	321

TABLE A-II: Key data for estimating cost and hedonic functions

Sample Pt	COST	Fk	K	P	F	s	a	BTU	Y
1	0.324	0.134	0.641	1.581	0.151	3.114	0.841	11337	0.439
2	0.098	0.296	0.189	1.882	0.023	0.746	0.861	8174	0.067
3	2.256	0.314	4.032	1.835	0.539	0.375	0.448	9593	1.553
4	1.824	0.358	3.354	1.726	0.362	0.387	0.440	9564	1.042
5	1.078	0.285	2.047	1.888	0.262	0.554	0.743	12817	0.779
6	0.840	0.096	2.928	1.028	0.344	2.589	1.408	11511	1.627
7	0.618	0.122	2.015	1.240	0.300	2.654	1.319	11642	0.895
8	1.155	0.110	2.658	2.194	0.393	2.620	1.094	11830	1.173
9	0.447	0.092	1.584	0.706	0.427	0.444	0.604	8333	1.239
10	2.835	0.311	1.993	2.599	0.852	0.841	0.780	12365	2.721
11	1.939	0.375	1.530	2.275	0.600	0.627	0.747	12596	1.915
12	0.512	0.265	0.716	2.382	0.135	0.549	0.604	12743	0.398
13	0.371	0.083	1.398	1.587	0.160	0.593	0.838	11303	0.476
14	0.898	0.241	1.872	1.463	0.306	2.473	0.999	11161	0.924
15	0.258	0.090	0.732	1.105	0.174	3.928	1.635	10311	0.446
16	0.361	0.241	0.730	1.175	0.158	3.378	1.455	10540	0.405
17	0.381	0.090	0.946	1.993	0.149	0.432	0.497	12506	0.392
18	1.029	0.133	1.575	1.310	0.626	1.809	1.733	11555	1.949
19	0.783	0.190	1.670	1.079	0.432	0.420	0.556	8816	1.355
20	1.331	0.345	1.749	1.513	0.481	0.253	0.590	8689	1.439
21	1.921	0.173	2.915	1.963	0.722	1.222	0.792	12028	2.423
22	0.922	0.297	2.430	1.927	0.104	0.489	0.921	12468	0.282
23	0.247	0.140	0.558	1.256	0.135	1.346	0.904	8840	0.363
24	1.031	0.342	2.290	1.591	0.155	0.420	0.713	8343	0.436
25	0.374	0.096	0.818	1.425	0.207	1.149	0.764	8787	0.609
26	0.194	0.054	0.416	0.970	0.176	2.971	1.442	10266	0.518
27	1.400	0.345	1.946	2.032	0.358	0.544	0.838	12322	1.105
28	0.632	0.177	0.978	2.144	0.214	1.705	1.205	11730	0.628
29	0.614	0.289	1.218	1.284	0.203	2.550	1.028	10901	0.598
30	0.976	0.295	2.015	1.485	0.257	2.469	0.908	11096	0.755
31	0.390	0.037	1.676	1.763	0.186	0.522	0.652	12847	0.594
32	1.374	0.335	1.641	2.706	0.305	0.464	0.884	12491	0.970
33	1.980	0.150	3.122	1.862	0.812	0.502	0.830	12559	2.701
34	0.614	0.135	1.378	1.226	0.349	2.161	1.102	10921	1.029
35	0.720	0.286	0.614	1.903	0.178	1.916	0.848	11588	0.526
36	0.672	0.211	1.474	1.364	0.264	0.355	0.632	8455	0.789
37	0.850	0.128	1.725	1.015	0.619	2.471	0.974	10888	1.856
38	0.874	0.156	2.020	1.726	0.323	0.435	0.698	8280	0.853
39	0.944	0.426	1.269	1.341	0.301	0.373	0.597	8307	0.796
40	0.735	0.107	2.043	1.307	0.394	2.352	0.983	12371	1.194
41	0.564	0.065	1.460	1.470	0.319	2.275	1.124	12310	0.968
42	2.560	0.288	4.251	2.503	0.533	0.456	0.695	7895	1.495
43	1.681	0.312	2.649	2.966	0.288	0.510	0.555	13131	0.845
44	1.621	0.426	1.581	2.940	0.322	0.537	0.711	12658	0.947
45	0.594	0.112	1.394	0.616	0.711	0.939	1.114	8736	2.079
46	0.415	0.159	0.848	0.691	0.405	0.883	1.082	8722	1.185
47	0.122	0.066	0.727	1.012	0.073	2.927	1.371	11410	0.204
48	1.388	0.206	1.929	1.570	0.631	4.145	1.266	10181	1.855
49	0.220	0.126	0.816	2.043	0.057	0.476	0.825	11558	0.172
50	0.780	0.270	0.790	2.963	0.192	0.482	0.705	11826	0.577
51	0.558	0.228	0.969	2.149	0.157	0.818	0.620	9286	0.413

Units:
 Fk (price of capital services)--Nominal \$ per \$ of capital; K (capital)-- 10^8 1976\$;
 P (price of coal)--Nominal \$/10⁶ Btu; F (coal consumption)-- 10^{14} Btu;
 s (sulfur content)--lb. sulfur/10⁶ Btu; a (ash content)--lb. ash/10⁵ Btu;
 BTU (coal heat content)--Btu/lb.; Y (output)--3.2278 x 10⁹ kWh (normalized
 to yield mean of 1.000).

TABLE A-III: Estimated Coefficients for Hedonic Price Function
(Standard errors in parentheses)

Sample Pt #	α_F	α_S	α_A	α_{SS}	α_{AA}	α_{AS}	# Obs	Adjusted R-sqrd
1	2.1158 (0.0542)	-0.4473 (0.0338)	-0.3152 (0.0508)	0.132 (0.0113)	0	0	945	0.32
2	2.1389 (0.0695)	-0.7799 (0.1123)	0.4649 (0.0624)	0	0	0	287	0.17
3	2.1698 (0.398)	-0.0901 (0.0282)	-0.228 (0.0585)	0	0	0	822	0.04
4	2.1268 (0.0645)	-0.282 (0.1163)	-0.109 (0.0594)	0.124 (0.0762)	0	0	949	0.02
5	2.459 (0.0879)	-1.2901 (0.1747)	-0.2267 (0.0565)	1.2903 (0.1656)	0	0	403	0.17
6	1.1999 (0.01957)	-0.0319 (0.0080)	-0.1604 (0.0079)	0	0	0	2613	0.14
7	1.4633 (0.0230)	-0.0742 (0.0078)	-0.219 (0.0180)	0.0136 (0.0064)	0	0	2420	0.24
8	1.9233 (0.0441)	-0.1539 (0.0342)	-0.2816 (0.0335)	0.0401 (0.0181)	0.0177 (0.0104)	0.0367 (0.0104)	2371	0.14
9	1.6255 (0.0729)	-0.0451 (0.0107)	-0.2026 (0.1178)	0	0.1827 (0.0212)	0	664	0.04
10	2.5388 (0.0332)	-0.2621 (0.0205)	0	0	0	0	362	0.31
11	2.3027 (0.0229)	-0.1754 (0.0145)	0	0	0	0	541	0.21
12	2.5722 (0.0345)	-0.2945 (0.0195)	0	0	0	0	283	0.45
13	1.7394 (0.0281)	-0.3837 (0.0278)	-0.2234 (0.0175)	0.1245 (0.0132)	0	0	1171	0.43
14	2.2131 (0.0365)	-0.4749 (0.1261)	-0.1647 (0.0303)	0.1407 (0.0120)	0	0	1189	0.44
15	1.8739 (0.0302)	-0.3912 (0.0238)	-0.1421 (0.0249)	0.115 (0.0107)	0	0	1218	0.41
16	2.2131 (0.0365)	-0.4749 (0.1261)	-0.1647 (0.0303)	0.1407 (0.0120)	0	0	1189	0.44
17	2.3057 (0.0263)	-0.6402 (0.0310)	-0.3086 (0.0197)	0.2264 (0.0160)	0	0	1001	0.68
18	1.4633 (0.0230)	-0.0742 (0.0078)	-0.219 (0.0180)	0.0136 (0.0064)	0	0	2420	0.24
19	1.6983 (0.0373)	-0.1321 (0.0279)	0	0.021 (0.0093)	0	0	511	0.12
20	1.8687 (2.3679)	-2.1465 (0.9203)	0	6.537 (2.3679)	0	0	47	0.26
21	2.2668 (0.0788)	-0.1669 (0.0136)	-0.455 (0.0188)	0	0.5509 (0.2160)	0	1228	0.12
22	2.7667 (0.0708)	-0.3562 (0.344)	-1.7891 (0.1346)	0.1674 (0.0152)	1.8078 (0.1397)	-0.084 (0.0315)	2139	0.22
23	1.5556 (0.0298)	-0.0318 (0.0083)	-0.1585 (0.0306)	0	0	0	688	0.11
24	1.5516 (0.4114)	0.0547 (0.1632)	-0.3583 (0.9310)	0.6881 (0.0854)	2.7477 (1.0754)	-1.3459 (0.1898)	318	0.22
25	1.6545 (0.0468)	0	-0.2293 (0.1159)	0	0.1209 (0.1387)	0	1130	0.02
26	2.3057 (0.0263)	-0.6402 (0.0310)	-0.3086 (0.0197)	0.2264 (0.0160)	0	0	1001	0.68
27	2.4637 (0.0690)	-0.8035 (0.1451)	-0.1845 (0.0295)	0.4845 (0.1580)	0	0	1198	0.18
28	2.5388 (0.0332)	-0.2621 (0.0205)	0	0	0	0	362	0.31
29	3.1833 (0.0626)	-0.9996 (0.0522)	-0.5713 (0.0569)	0.3696 (0.0234)	0	0	1119	0.43
30	3.4669 (0.1210)	-1.0344 (0.1185)	-0.8042 (0.1362)	0.3756 (0.0548)	0	0	612	0.34
31	2.3382 (0.0839)	-0.555 (0.0575)	-1.013 (0.1325)	0.1257 (0.0246)	0.5712 (0.1163)	0.2637 (0.0519)	1236	0.12
32	1.8325 (0.0286)	-0.1556 (0.0200)	0	0	0	0	724	0.08
33	1.905 (0.0303)	-0.1812 (0.0126)	-0.0417 (0.0236)	0	0	0	1464	0.13
34	1.8952 (0.0287)	-0.3959 (0.0314)	-0.1086 (0.0194)	0.11 (0.0156)	0	0	1172	0.38
35	3.6558 (0.0575)	-1.4002 (0.0718)	-0.4313 (0.0388)	0.5289 (0.0371)	0	0	684	0.66
36	1.9497 (0.0656)	-0.2572 (0.0839)	0	0.1451 (0.0429)	0	0	328	0.03
37	1.6257 (0.0453)	-0.2901 (0.0236)	-0.0951 (0.0526)	0.0591 (0.0097)	0.0417 (0.0247)	0.0272 (0.0144)	1222	0.25
38	1.7596 (0.0415)	-0.1514 (0.0494)	0	0	0	0	732	0.01
39	1.8308 (0.1878)	0	-0.8238 (0.5265)	0	1.35 (0.7132)	0	644	0.01
40	1.683 (0.0137)	-0.1871 (0.0109)	0	0	0	0	1438	0.17
41	1.905 (0.0303)	-0.1812 (0.0126)	-0.0417 (0.0236)	0	0	0	1464	0.13
42	3.2084 (0.0809)	-0.9806 (0.0611)	-0.5441 (0.0909)	0.3542 (0.0285)	0	0	747	0.47
43	3.391 (0.1768)	-0.5198 (0.1183)	-2.4073 (0.4929)	0.1048 (0.0692)	1.8759 (0.7973)	0.3452 (0.2049)	729	0.17
44	3.0196 (0.0730)	-1.028 (0.0802)	-0.4085 (0.0769)	0	0.498	0	913	0.27
45	1.2055 (0.0629)	-0.0371 (0.0155)	-0.1926 (0.0502)	0	0	0	362	0.04
46	1.1663 (0.0582)	-0.0426 (0.0597)	0	0	0	0	360	0.08
47	1.2358 (0.0327)	-0.147 (0.0239)	0	0.02 (0.0083)	0	0	752	0.17
48	1.6537 (0.0310)	-0.0168 (0.0110)	-0.0626 (0.0398)	0	0	0	449	0.03
49	1.9918 (0.0796)	-0.4797 (0.0916)	0	0.1639 (0.0491)	0	0	146	0.32
50	3.6035 (0.1128)	-1.8347 (0.2095)	0	0.9405 (0.1508)	0	0	125	0.75
51	2.0422 (0.0594)	0	-0.3938 (0.0726)	0	0	0	910	0.03

Table A-IV: Instruments used in estimating cost function

SMPL #	RGO	RNH	SCC	SED	SDG	DWW
1	0.015	0.002	1150.6	60551	0.002	399.72
2	0.014	0.044	251.5	25682	-0.075	382.59
3	0.017	0.057	811.9	76253	0.025	460.83
4	0.014	0.065	840.2	78980	0.036	452.85
5	0.089	0.137	275.0	41892	0.067	355.03
6	0.006	0.062	1572.5	97392	0.021	350.48
7	0.008	0.052	1756.3	100392	0.031	353.82
8	0.005	0.062	1291.5	84397	-0.062	331.39
9	0.021	0.039	234.4	24858	0.018	318.78
10	0.275	0.107	378.7	103524	0.073	275.56
11	0.301	0.089	459.4	116638	0.049	317.66
12	0.237	0.069	318.9	96488	0.043	410.36
13	0.001	0.087	841.6	97184	0.049	373.34
14	0.003	0.027	637.8	47161	0.001	331.64
15	0.000	0.021	663.9	49819	0.001	342.23
16	0.002	0.027	637.8	47161	0.001	331.64
17	0.026	0.081	844.5	96679	-0.009	373.57
18	0.006	0.052	1756.3	100392	0.031	353.82
19	0.003	0.013	523.8	41916	-0.018	326.56
20	0.147	0.175	224.5	22932	-0.038	283.45
21	0.004	0.082	711.4	66135	-0.046	449.33
22	0.013	0.013	1361.8	121282	0.135	430.46
23	0.161	0.039	219.4	24408	0.019	399.34
24	0.054	0.048	268.8	25677	0.000	379.11
25	0.000	0.103	327.3	38027	0.030	375.05
26	0.000	0.081	844.5	96679	-0.009	373.57
27	0.003	0.147	550.5	72287	0.009	266.59
28	0.214	0.107	378.7	103524	0.073	291.49
29	0.003	0.002	1193.3	63844	0.073	404.34
30	0.001	0.002	1209.5	59520	-0.037	404.61
31	0.010	0.233	661.0	50967	0.015	303.68
32	0.005	0.134	660.7	51702	0.002	300.40
33	0.000	0.015	808.0	20757	-0.051	364.72
34	0.019	0.075	845.4	97533	0.004	377.43
35	0.003	0.111	833.2	98598	0.018	373.94
36	0.003	0.039	253.7	27749	0.052	386.51
37	0.008	0.002	1171.6	61677	0.031	401.96
38	0.027	0.112	324.1	37604	-0.011	370.87
39	0.002	0.108	386.6	44977	-0.037	372.23
40	0.003	0.015	877.5	21869	0.049	368.85
41	0.002	0.015	808.0	20757	-0.051	364.72
42	0.005	0.002	1149.2	64391	0.009	391.52
43	0.001	0.057	681.5	61034	0.126	288.56
44	0.011	0.054	692.5	68432	0.075	290.80
45	0.037	0.115	255.7	32586	0.143	358.57
46	0.017	0.117	229.5	35079	0.077	352.67
47	0.282	0.007	485.7	39362	0.077	344.04
48	0.000	0.019	593.3	45408	0.006	350.18
49	0.173	0.000	59.8	22174	0.012	249.18
50	0.031	0.000	96.1	23700	0.032	258.59
51	0.006	0.103	352.8	39017	0.038	383.11

KEY:

RGO: Ratio of oil & gas consumption to total utility fuel consumption
 RNH: Ratio of nuclear and hydro generation in total utility generation.
 SCC: Total state coal consumption (trillions of Btu)
 SED: State electricity demand (million kWh) per year
 SDG: State electricity demand growth per year
 DWW: Deflated weekly wage