

Part 1 - Appendix 3C
Kansas City Power & Light Reports

Missouri 4 CSR 240-22.030 (7)(A)(7) Reporting Requirements
Load Analysis and Forecasting

The utility shall provide plots for the net system load profiles for the summer peak day and the winter peak day showing the contribution of each major class. The plots shall be provided in the triennial filing for the base year of the forecast and for the fifth, tenth, and twentieth years of the forecast. Plots for all years shall be included in the workpapers supplied at the time of the triennial filing.

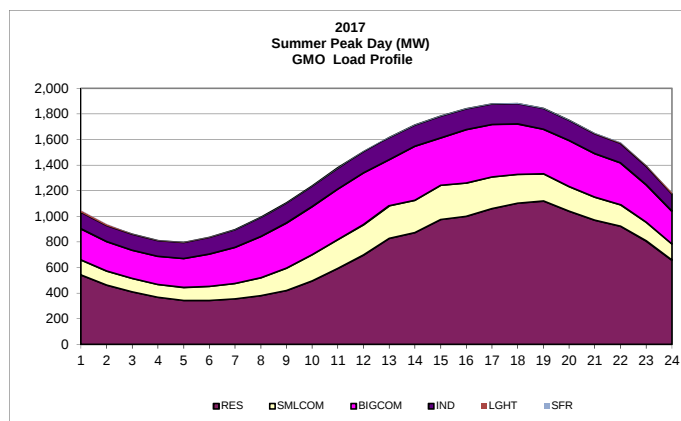
Compliance: See Plots 3C-1 through 3C-5 for base-case GMOC forecast reports designed to comply with section (7)(A)(7) reporting requirements.

Linked Files:

7_Data_Calib.xls
GMO_SystemLoad.ltm
System.ltm

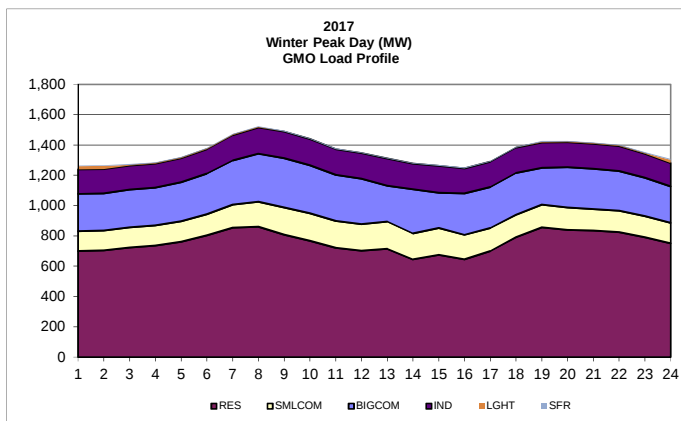
Plot 3C-1 GMO System Peak Day Loads by Class (Summer 2017)
Summer Peak Day (MW)

Date	Hr	GMO						Total
		RES	SMLCOM	BIGCOM	IND	LGHT	SFR	
7/19/17	1	542	117	243	131	13	3	1,049
7/19/17	2	463	108	231	126	13	2	943
7/19/17	3	409	104	222	123	3	2	864
7/19/17	4	366	101	219	122	3	2	814
7/19/17	5	342	102	226	124	3	2	799
7/19/17	6	342	109	253	131	3	2	840
7/19/17	7	354	120	282	140	-	2	898
7/19/17	8	380	141	320	150	-	3	994
7/19/17	9	419	175	353	157	-	3	1,108
7/19/17	10	496	203	375	161	-	4	1,238
7/19/17	11	593	224	396	164	-	4	1,380
7/19/17	12	696	238	407	164	-	4	1,509
7/19/17	13	828	256	358	172	-	5	1,619
7/19/17	14	872	253	422	166	-	5	1,718
7/19/17	15	975	268	369	170	-	5	1,788
7/19/17	16	1,000	259	419	162	-	5	1,845
7/19/17	17	1,059	249	408	161	-	5	1,883
7/19/17	18	1,102	225	395	159	-	5	1,886
7/19/17	19	1,119	212	350	162	-	5	1,848
7/19/17	20	1,041	192	359	158	-	5	1,754
7/19/17	21	971	179	342	155	3	5	1,653
7/19/17	22	921	169	327	154	4	4	1,579
7/19/17	23	806	148	293	145	4	4	1,400
7/19/17	24	657	128	258	132	13	3	1,192



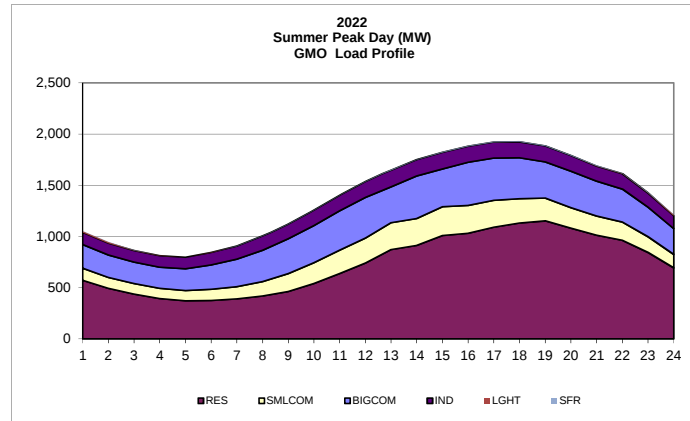
Plot 3C-2 GMO System Peak Day Loads by Class (Winter 2017)
Winter Peak Day (MW)

Date	Hr	GMO						Total
		RES	SMLCOM	BIGCOM	IND	LGHT	SFR	
1/28/14	1	700	132	246	160	22	5	1,265
1/28/14	2	705	131	245	159	22	5	1,267
1/28/14	3	723	134	248	160	4	5	1,274
1/28/14	4	735	134	249	159	4	5	1,286
1/28/14	5	762	136	256	159	4	5	1,322
1/28/14	6	804	139	268	161	4	5	1,382
1/28/14	7	855	151	292	166	4	5	1,474
1/28/14	8	861	165	317	172	4	6	1,525
1/28/14	9	809	178	325	176	1	6	1,494
1/28/14	10	767	183	316	173	-	6	1,444
1/28/14	11	721	178	305	169	-	5	1,378
1/28/14	12	701	175	300	169	-	5	1,352
1/28/14	13	714	180	237	179	-	5	1,316
1/28/14	14	646	170	291	169	-	5	1,282
1/28/14	15	674	178	232	179	-	5	1,268
1/28/14	16	645	162	273	166	-	5	1,251
1/28/14	17	700	153	270	166	-	5	1,294
1/28/14	18	792	148	276	167	0	5	1,388
1/28/14	19	857	150	241	168	4	6	1,426
1/28/14	20	841	146	267	164	4	5	1,427
1/28/14	21	835	143	266	164	4	6	1,417
1/28/14	22	825	141	263	164	4	6	1,402
1/28/14	23	792	138	254	160	4	5	1,353
1/28/14	24	751	135	242	152	22	5	1,308



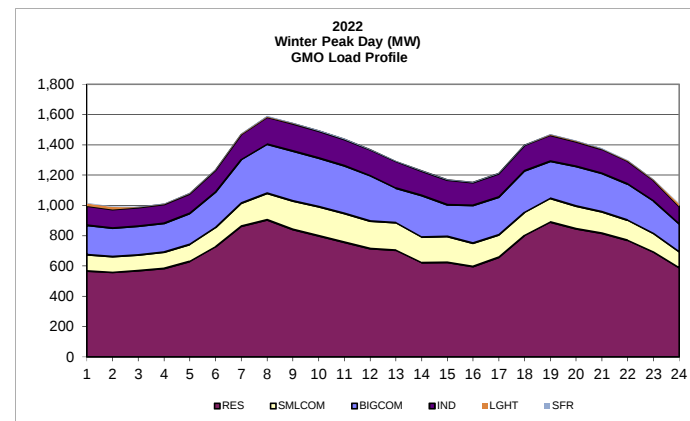
Plot 3C-3 GMO System Peak Day Loads by Class (Summer 2022)
Summer Peak Day (MW)

Date	Hr	GMO						Total
		RES	SMLCOM	BIGCOM	IND	LGHT	SFR	
7/4/19	1	571	118	232	120	12	3	1,056
7/4/19	2	492	109	219	115	12	2	948
7/4/19	3	437	104	209	112	3	2	867
7/4/19	4	394	101	206	110	3	2	816
7/4/19	5	372	100	213	112	3	2	802
7/4/19	6	376	108	239	119	3	2	847
7/4/19	7	389	118	270	129	-	2	909
7/4/19	8	417	141	307	140	-	3	1,008
7/4/19	9	462	176	338	146	-	3	1,125
7/4/19	10	539	205	362	149	-	3	1,259
7/4/19	11	638	228	383	153	-	4	1,406
7/4/19	12	741	243	396	153	-	4	1,538
7/4/19	13	870	262	352	162	-	5	1,652
7/4/19	14	912	262	417	157	-	5	1,754
7/4/19	15	1,009	280	370	163	-	6	1,827
7/4/19	16	1,031	272	421	157	-	6	1,886
7/4/19	17	1,089	263	413	157	-	6	1,927
7/4/19	18	1,131	238	400	155	-	6	1,929
7/4/19	19	1,152	223	353	157	-	6	1,890
7/4/19	20	1,080	200	358	152	-	5	1,795
7/4/19	21	1,012	186	340	150	3	5	1,696
7/4/19	22	962	176	325	147	4	5	1,619
7/4/19	23	844	154	289	139	3	4	1,433
7/4/19	24	692	132	252	125	12	3	1,217



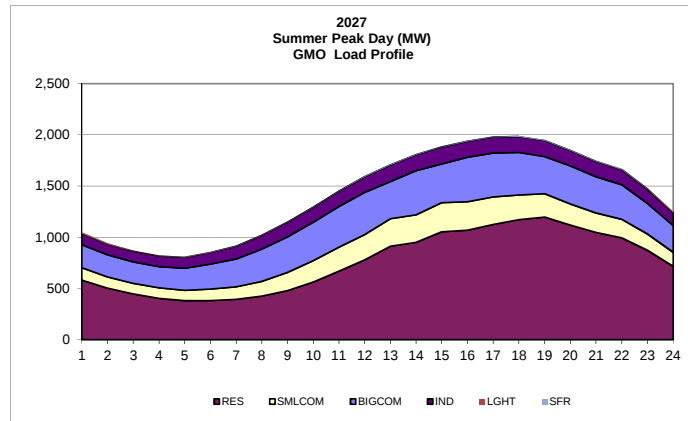
Plot 3C-4 GMO System Peak Day Loads by Class (Winter 2022)
Winter Peak Day (MW)

Date	Hr	GMO						Total
		RES	SMLCOM	BIGCOM	IND	LGHT	SFR	
1/28/19	1	568	107	193	128	17	4	1,017
1/28/19	2	558	104	188	123	17	4	994
1/28/19	3	568	105	188	123	3	4	992
1/28/19	4	584	107	191	124	3	4	1,013
1/28/19	5	630	112	204	129	3	4	1,083
1/28/19	6	728	126	235	143	4	4	1,240
1/28/19	7	862	153	286	165	4	5	1,476
1/28/19	8	905	175	324	178	4	6	1,592
1/28/19	9	842	188	330	180	1	6	1,546
1/28/19	10	799	193	321	177	-	5	1,496
1/28/19	11	758	191	313	174	-	5	1,441
1/28/19	12	714	182	300	169	-	5	1,370
1/28/19	13	705	181	229	174	-	5	1,294
1/28/19	14	622	168	276	160	-	4	1,230
1/28/19	15	625	170	211	163	-	4	1,172
1/28/19	16	597	154	249	151	-	4	1,155
1/28/19	17	659	147	249	153	-	4	1,213
1/28/19	18	802	152	274	166	0	5	1,400
1/28/19	19	889	158	244	172	4	5	1,472
1/28/19	20	847	149	263	162	4	5	1,430
1/28/19	21	816	142	254	158	4	5	1,378
1/28/19	22	770	133	239	150	4	5	1,300
1/28/19	23	693	121	215	137	4	4	1,174
1/28/19	24	588	106	183	117	17	4	1,015



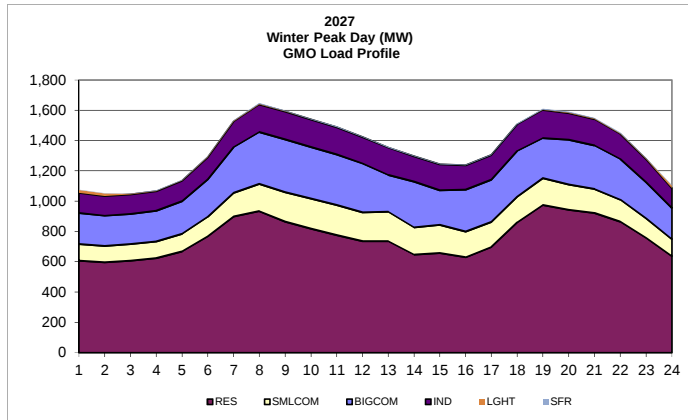
Plot 3C-5 GMO System Peak Day Loads by Class (Summer 2027)
Summer Peak Day (MW)

Date	Hr	GMO						Total
		RES	SMLCOM	BIGCOM	IND	LGHT	SFR	
7/4/24	1	582	120	227	108	12	3	1,052
7/4/24	2	502	110	215	105	12	2	945
7/4/24	3	445	105	208	103	3	2	866
7/4/24	4	402	102	207	103	3	2	819
7/4/24	5	380	102	215	106	3	2	808
7/4/24	6	382	110	244	115	3	2	855
7/4/24	7	393	121	274	125	-	2	915
7/4/24	8	425	144	313	136	-	3	1,021
7/4/24	9	476	180	347	143	-	3	1,149
7/4/24	10	561	211	374	148	-	3	1,297
7/4/24	11	667	234	397	152	-	4	1,454
7/4/24	12	776	249	411	154	-	4	1,595
7/4/24	13	912	270	362	162	-	5	1,711
7/4/24	14	949	268	432	157	-	5	1,812
7/4/24	15	1,051	287	379	163	-	6	1,885
7/4/24	16	1,067	278	435	156	-	6	1,942
7/4/24	17	1,125	269	426	156	-	6	1,982
7/4/24	18	1,171	242	414	155	-	6	1,988
7/4/24	19	1,198	228	362	157	-	6	1,950
7/4/24	20	1,119	205	371	152	-	5	1,852
7/4/24	21	1,047	191	352	149	3	5	1,746
7/4/24	22	994	182	336	147	4	5	1,667
7/4/24	23	872	159	300	138	3	4	1,476
7/4/24	24	715	137	262	125	12	3	1,256



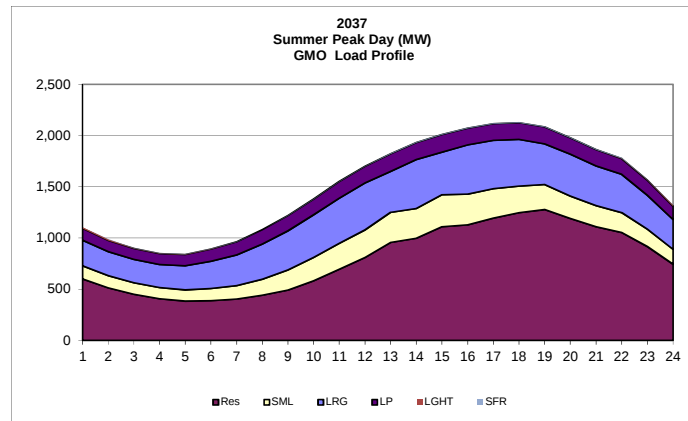
Plot 3C-6 GMO System Peak Day Loads by Class (Winter 2027)
Winter Peak Day (MW)

Date	Hr	GMO						Total
		RES	SMLCOM	BIGCOM	IND	LGHT	SFR	
1/28/24	1	607	111	205	133	18	4	1,077
1/28/24	2	596	108	200	128	17	4	1,054
1/28/24	3	607	109	200	128	3	4	1,052
1/28/24	4	623	110	203	129	3	4	1,072
1/28/24	5	669	115	216	134	3	4	1,142
1/28/24	6	767	128	247	147	4	4	1,298
1/28/24	7	900	156	301	169	4	5	1,535
1/28/24	8	935	180	342	182	4	6	1,648
1/28/24	9	865	194	350	184	1	6	1,599
1/28/24	10	818	199	341	181	-	5	1,544
1/28/24	11	776	198	335	179	-	5	1,494
1/28/24	12	735	191	322	174	-	5	1,428
1/28/24	13	735	194	243	181	-	5	1,359
1/28/24	14	648	180	302	167	-	4	1,301
1/28/24	15	659	185	227	172	-	4	1,248
1/28/24	16	630	170	277	160	-	4	1,241
1/28/24	17	699	165	278	163	-	4	1,309
1/28/24	18	860	169	302	177	0	5	1,513
1/28/24	19	975	177	265	185	4	6	1,611
1/28/24	20	943	167	296	176	4	6	1,591
1/28/24	21	922	158	287	173	4	5	1,550
1/28/24	22	866	145	269	166	4	5	1,454
1/28/24	23	757	128	240	151	4	5	1,285
1/28/24	24	636	112	207	132	18	4	1,108



Plot 3C-7 GMO System Peak Day Loads by Class (Summer 2037)
Summer Peak Day (MW)

Date	Hr	GMO						Total
		Res	SML	LRG	LP	LGHT	SFR	
7/4/34	1	599	130	250	113	12	3	1,107
7/4/34	2	511	118	236	109	12	2	989
7/4/34	3	450	113	228	107	3	2	903
7/4/34	4	405	109	226	106	3	2	851
7/4/34	5	382	110	235	110	3	2	842
7/4/34	6	387	118	266	119	3	2	895
7/4/34	7	404	130	300	129	-	2	964
7/4/34	8	440	155	344	141	-	3	1,082
7/4/34	9	490	196	383	150	-	3	1,222
7/4/34	10	580	229	414	155	-	3	1,382
7/4/34	11	692	255	441	160	-	4	1,552
7/4/34	12	808	271	457	162	-	4	1,703
7/4/34	13	957	294	400	172	-	5	1,828
7/4/34	14	995	291	480	166	-	5	1,937
7/4/34	15	1,110	311	417	173	-	6	2,016
7/4/34	16	1,127	301	480	165	-	6	2,078
7/4/34	17	1,193	289	470	164	-	6	2,122
7/4/34	18	1,247	259	456	163	-	6	2,131
7/4/34	19	1,277	244	398	165	-	6	2,090
7/4/34	20	1,189	220	411	160	-	5	1,984
7/4/34	21	1,109	206	389	157	3	5	1,868
7/4/34	22	1,052	196	372	155	4	5	1,783
7/4/34	23	915	171	332	145	4	4	1,572
7/4/34	24	742	148	290	132	13	3	1,328



Plot 3C-8 GMO System Peak Day Loads by Class (Winter 2037)
Winter Peak Day (MW)

Date	Hr	GMO						Total
		Res	SML	LRG	LP	LGHT	SFR	
1/28/34	1	652	115	220	135	18	4	1,143
1/28/34	2	642	112	214	130	17	4	1,119
1/28/34	3	654	113	214	130	3	4	1,118
1/28/34	4	674	114	217	131	3	4	1,143
1/28/34	5	726	121	232	137	3	4	1,223
1/28/34	6	839	135	266	150	4	4	1,399
1/28/34	7	989	168	327	173	4	5	1,666
1/28/34	8	1,030	193	374	186	4	6	1,792
1/28/34	9	950	209	383	188	1	6	1,736
1/28/34	10	893	215	374	186	-	5	1,674
1/28/34	11	846	215	368	183	-	5	1,618
1/28/34	12	800	208	356	179	-	5	1,548
1/28/34	13	804	213	268	187	-	5	1,478
1/28/34	14	709	198	337	172	-	4	1,421
1/28/34	15	722	205	253	178	-	5	1,363
1/28/34	16	691	189	311	166	-	4	1,362
1/28/34	17	774	183	312	170	-	5	1,444
1/28/34	18	960	189	340	185	0	5	1,679
1/28/34	19	1,094	195	295	194	4	6	1,788
1/28/34	20	1,052	184	331	183	4	6	1,760
1/28/34	21	1,026	172	319	180	4	6	1,706
1/28/34	22	960	154	297	172	4	5	1,592
1/28/34	23	834	135	264	156	4	5	1,396
1/28/34	24	696	117	226	136	18	4	1,197

