
Weekly ERCOT Load and Day-Ahead Price Forecast

U.S. Power and Gas Weekly

Morningstar Commodities Research

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Data Sources Used in This Publication

ERCOT
Morningstar

Daily ERCOT Load Forecast

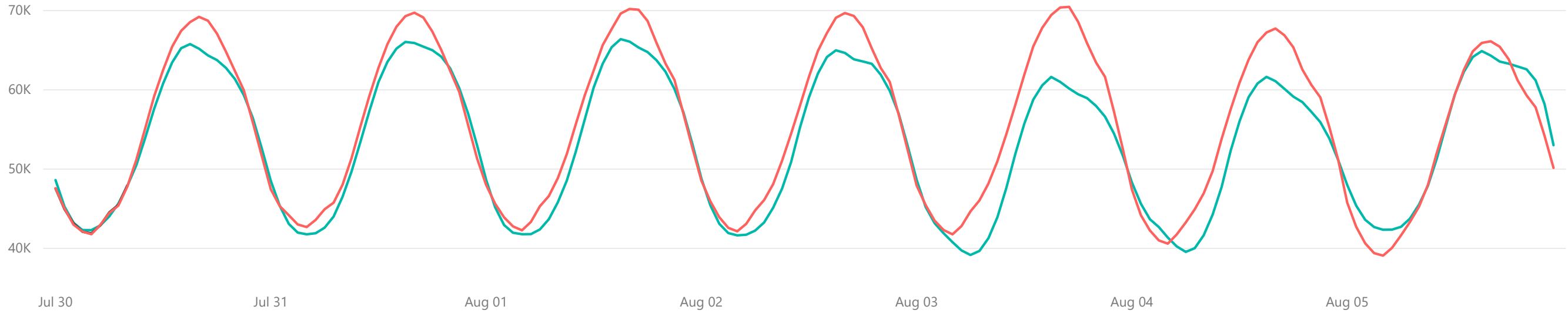
Eighteen months ago, Morningstar Commodity Data and Morningstar Quantitative Research set out to see if electricity demand and day-ahead price could be forecast in an accurate way applying statistical methods. Beyond using statistical tools, providing a forecast with a transparent methodology and interpretable results was the goal of our team's work. We are happy to share our in-house forecast for short-term load and day-ahead price for ERCOT.

Feedback

We actively seek feedback on model development from clients and prospects and would be interested in discussing the value of this work with commercial trading and analytics as well as to compare our results and approach with internal and external alternatives used by the industry. Please contact Matt Hong (matthew.hong@morningstar.com) or Michael O'Leary (michael.oleary@morningstar.com) for additional comments or questions.

ERCOT RTO

● M_ERCOT RTO ● ERCOT_Actual ● ERCOT_RTO_FRCST



Morningstar 7-Day Forecast

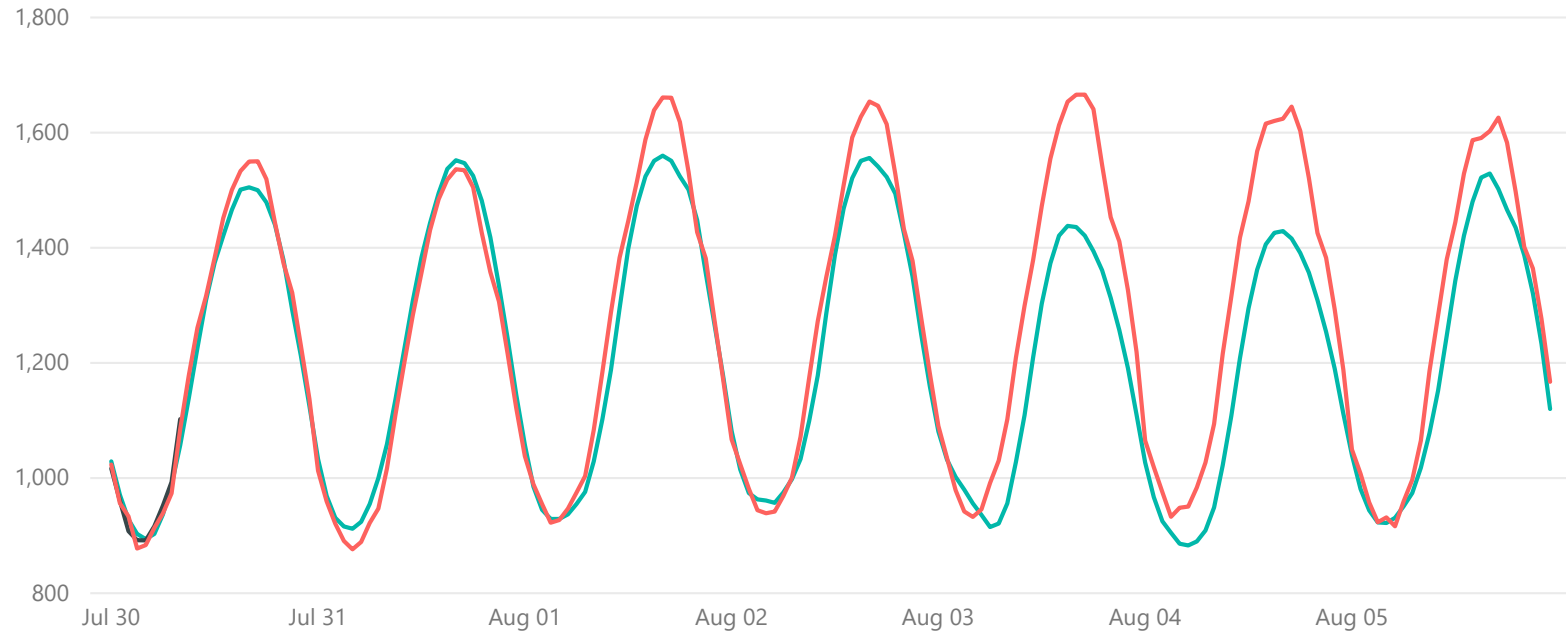
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
July																									
30	48,620	45,269	43,233	42,312	42,306	42,903	44,049	45,630	47,861	50,472	53,945	57,627	60,815	63,452	65,248	65,772	65,185	64,336	63,753	62,765	61,360	59,318	56,434	52,592	
31	48,522	45,363	43,100	41,992	41,776	41,911	42,611	44,013	46,516	49,696	53,467	57,365	60,976	63,525	65,196	66,045	65,909	65,449	65,007	64,191	62,707	60,239	56,995	52,987	
August																									
1	48,674	45,208	42,956	41,972	41,788	41,799	42,391	43,689	45,821	48,559	52,200	56,272	60,316	63,299	65,379	66,394	66,082	65,340	64,766	63,730	62,289	60,105	57,172	53,170	
2	48,831	45,435	43,099	41,933	41,639	41,722	42,247	43,274	45,124	47,551	50,875	55,275	59,074	62,079	64,144	64,982	64,659	63,852	63,580	63,283	61,906	59,877	56,989	52,920	
3	48,651	45,232	43,183	41,912	40,783	39,738	39,168	39,677	41,280	43,930	47,633	51,915	55,717	58,768	60,568	61,628	61,002	60,164	59,444	58,950	57,972	56,622	54,482	51,657	
4	48,304	45,632	43,683	42,689	41,364	40,242	39,558	40,023	41,653	44,271	47,750	52,294	56,041	59,069	60,801	61,638	61,094	60,129	59,139	58,453	57,228	55,930	53,881	51,126	
5	47,998	45,392	43,614	42,691	42,350	42,368	42,722	43,768	45,520	47,908	51,367	55,454	59,429	62,258	64,143	64,893	64,320	63,567	63,301	62,945	62,586	61,197	58,199	53,013	

Actual Load

Month	1	2	3	4	5	6	7	8	9
July									
30	47,561	44,940	43,165	42,098	41,899	42,919	44,551	45,477	47,937

ERCOT North

● M_North ● North_Actual ● ER_North_Frcst



Morningstar 7-Day Forecast

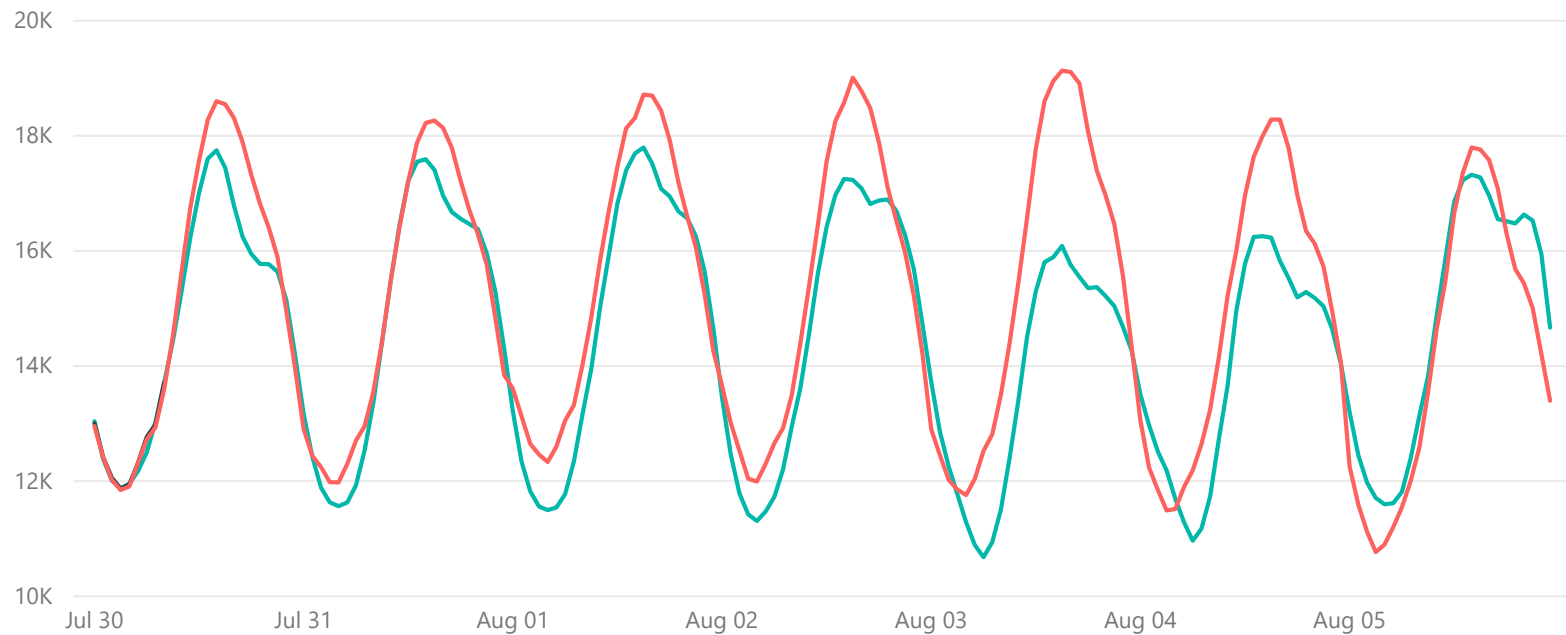
Month	July		August				
Hour Ending	30	31	1	2	3	4	5
1	1,029	1,033	1,058	1,082	1,081	1,027	1,040
2	971	969	985	1,015	1,032	967	981
3	928	931	945	974	1,002	925	944
4	903	916	929	963	980	905	923
5	894	912	929	961	956	886	922
6	903	924	937	957	936	883	931
7	937	955	955	975	915	890	951
8	988	1,000	976	998	921	909	974
9	1,057	1,059	1,029	1,033	956	949	1,018
10	1,139	1,138	1,102	1,099	1,028	1,022	1,078
11	1,226	1,223	1,188	1,178	1,109	1,108	1,152
12	1,309	1,308	1,295	1,287	1,210	1,208	1,247
13	1,374	1,383	1,398	1,388	1,303	1,295	1,343
14	1,421	1,443	1,473	1,468	1,373	1,362	1,421
15	1,466	1,495	1,524	1,521	1,421	1,406	1,480
16	1,501	1,537	1,551	1,551	1,438	1,426	1,522
17	1,505	1,552	1,560	1,556	1,436	1,429	1,529
18	1,500	1,547	1,551	1,541	1,421	1,416	1,502

Actual

Hour Ending	30
1	1,017
2	961
3	908
4	892
5	892
6	916
7	952
8	993
9	1,102

ERCOT Coastal

● M_Coastal ● Coastal_Actual ● ER_Coast_Frcst



Morningstar 7-Day Forecast

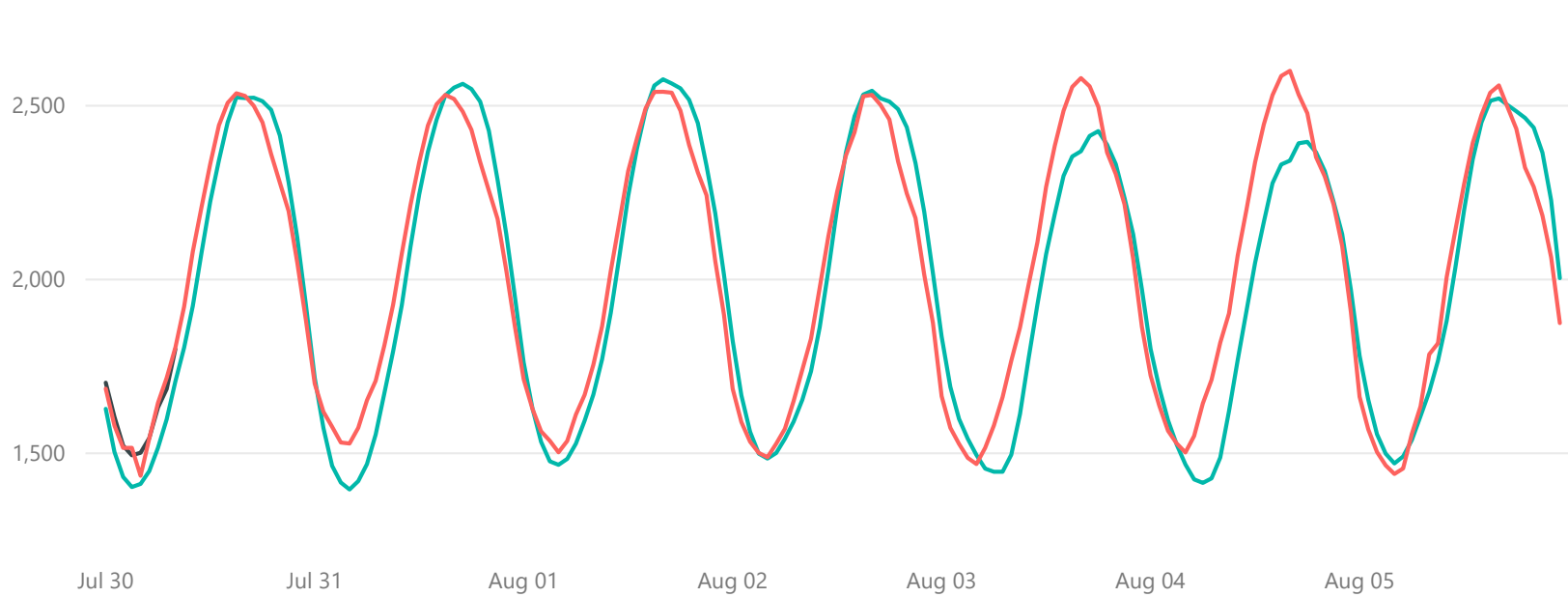
Month	July		August				
Hour Ending	30	31	1	2	3	4	5
1	13,040	13,166	13,217	13,453	13,724	13,503	13,197
2	12,384	12,421	12,340	12,464	12,856	12,968	12,451
3	12,009	11,885	11,823	11,786	12,256	12,515	11,975
4	11,878	11,632	11,560	11,423	11,771	12,187	11,709
5	11,953	11,566	11,497	11,309	11,286	11,695	11,598
6	12,175	11,629	11,543	11,472	10,890	11,286	11,617
7	12,501	11,928	11,776	11,728	10,680	10,965	11,814
8	13,025	12,539	12,340	12,205	10,940	11,174	12,393
9	13,710	13,368	13,167	12,949	11,512	11,738	13,135
10	14,436	14,423	13,952	13,628	12,411	12,733	13,823
11	15,305	15,496	15,013	14,580	13,407	13,657	14,894
12	16,237	16,453	15,918	15,612	14,512	14,958	15,879
13	17,011	17,217	16,825	16,419	15,301	15,779	16,857
14	17,603	17,549	17,403	16,970	15,806	16,244	17,233
15	17,748	17,594	17,693	17,251	15,891	16,256	17,324
16	17,445	17,410	17,798	17,234	16,087	16,232	17,277
17	16,791	16,959	17,513	17,088	15,757	15,829	16,964
18	16,244	16,676	17,082	16,816	15,548	15,528	16,553

Actual

Hour Ending	30
1	13,004
2	12,416
3	12,059
4	11,872
5	11,944
6	12,320
7	12,768
8	12,988
9	13,721

ERCOT East

● M_East ● East_Actual ● ER_East_Frcst



Morningstar 7-Day Forecast

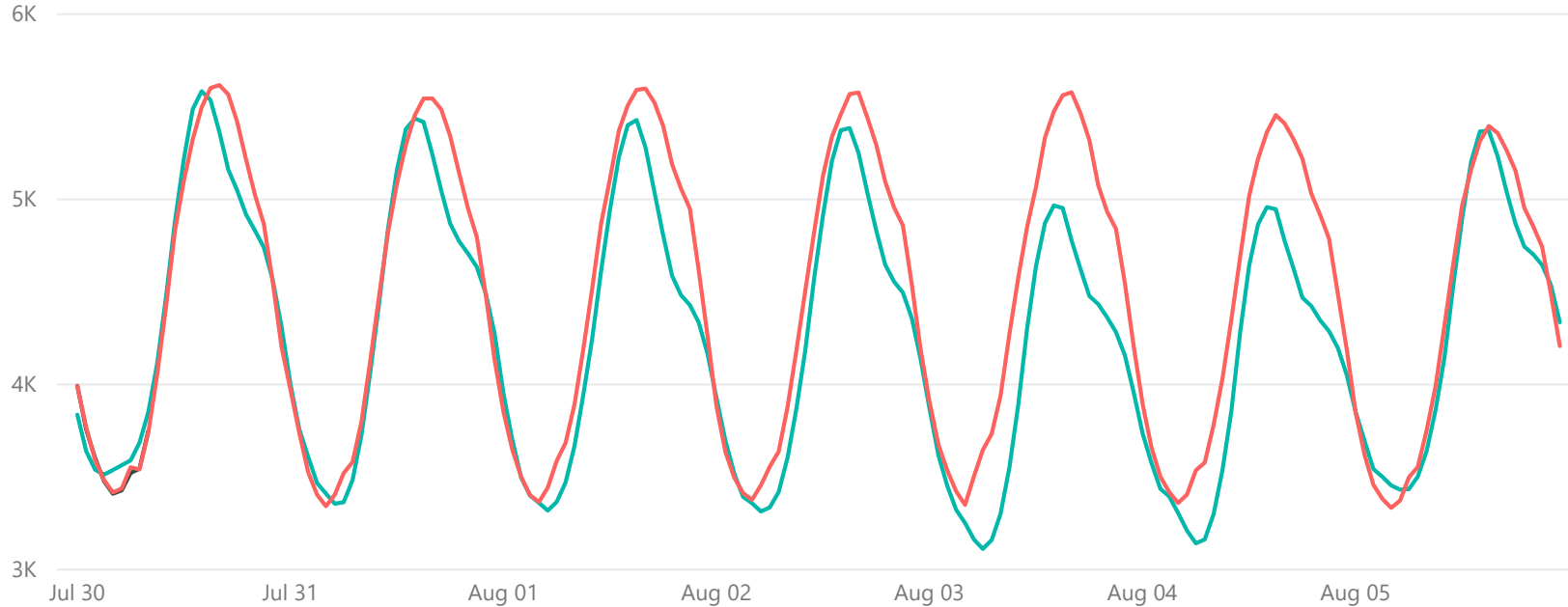
Month	July		August				
Hour Ending	30	31	1	2	3	4	5
1	1,628	1,717	1,761	1,824	1,836	1,800	1,781
2	1,504	1,573	1,630	1,667	1,691	1,688	1,654
3	1,432	1,464	1,533	1,562	1,599	1,595	1,555
4	1,403	1,416	1,477	1,499	1,542	1,525	1,499
5	1,412	1,396	1,467	1,485	1,495	1,468	1,471
6	1,449	1,420	1,484	1,501	1,456	1,425	1,491
7	1,516	1,469	1,528	1,542	1,447	1,415	1,538
8	1,598	1,554	1,594	1,591	1,447	1,428	1,607
9	1,707	1,673	1,669	1,654	1,496	1,488	1,677
10	1,804	1,793	1,770	1,736	1,613	1,621	1,766
11	1,924	1,926	1,904	1,863	1,775	1,768	1,881
12	2,077	2,094	2,068	2,028	1,928	1,908	2,034
13	2,224	2,245	2,240	2,206	2,073	2,048	2,199
14	2,343	2,367	2,376	2,365	2,189	2,165	2,346
15	2,452	2,460	2,486	2,470	2,298	2,277	2,452
16	2,524	2,530	2,558	2,532	2,354	2,331	2,514
17	2,522	2,552	2,576	2,543	2,369	2,342	2,521
18	2,523	2,563	2,564	2,521	2,413	2,392	2,502

Actual

Hour Ending	30
1	1,703
2	1,605
3	1,522
4	1,494
5	1,502
6	1,544
7	1,632
8	1,685
9	1,800

ERCOT South

● M_South ● South_Actual ● ER_Southern_Frcst



Morningstar 7-Day Forecast

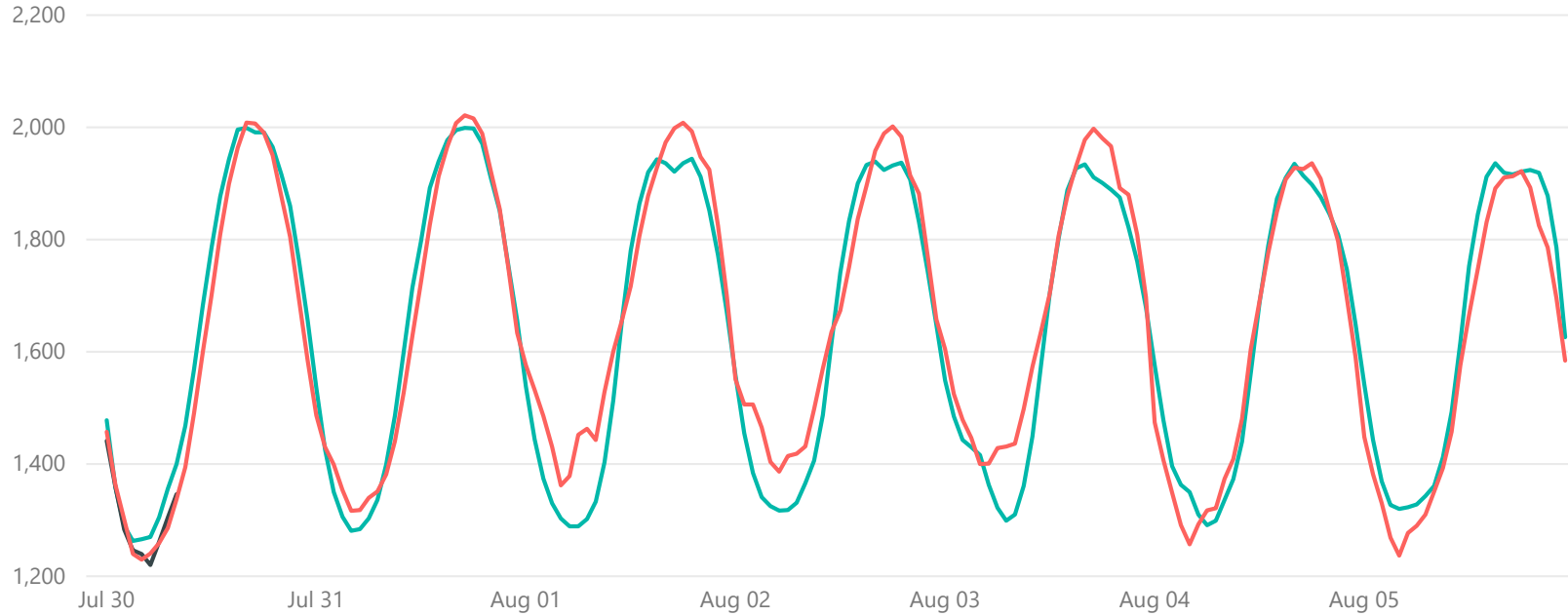
Month	July		August				
Hour Ending	30	31	1	2	3	4	5
1	3,837	4,004	3,951	3,927	3,869	3,736	3,851
2	3,640	3,759	3,701	3,697	3,618	3,576	3,696
3	3,540	3,610	3,496	3,519	3,452	3,437	3,543
4	3,513	3,468	3,400	3,393	3,323	3,395	3,502
5	3,538	3,411	3,361	3,359	3,252	3,306	3,455
6	3,564	3,356	3,319	3,314	3,163	3,211	3,432
7	3,590	3,364	3,366	3,336	3,112	3,142	3,435
8	3,685	3,483	3,471	3,419	3,160	3,163	3,503
9	3,852	3,725	3,667	3,604	3,302	3,300	3,642
10	4,114	4,069	3,945	3,869	3,553	3,539	3,862
11	4,476	4,441	4,249	4,184	3,893	3,857	4,145
12	4,882	4,842	4,613	4,574	4,306	4,287	4,537
13	5,219	5,158	4,944	4,915	4,642	4,641	4,899
14	5,487	5,379	5,228	5,207	4,872	4,865	5,202
15	5,584	5,437	5,401	5,373	4,967	4,958	5,367
16	5,537	5,418	5,428	5,385	4,953	4,947	5,370
17	5,364	5,241	5,281	5,251	4,778	4,775	5,232
18	5,161	5,046	5,042	5,035	4,624	4,627	5,042

Actual

Hour Ending	30
1	3,993
2	3,757
3	3,603
4	3,478
5	3,410
6	3,428
7	3,522
8	3,545
9	3,751

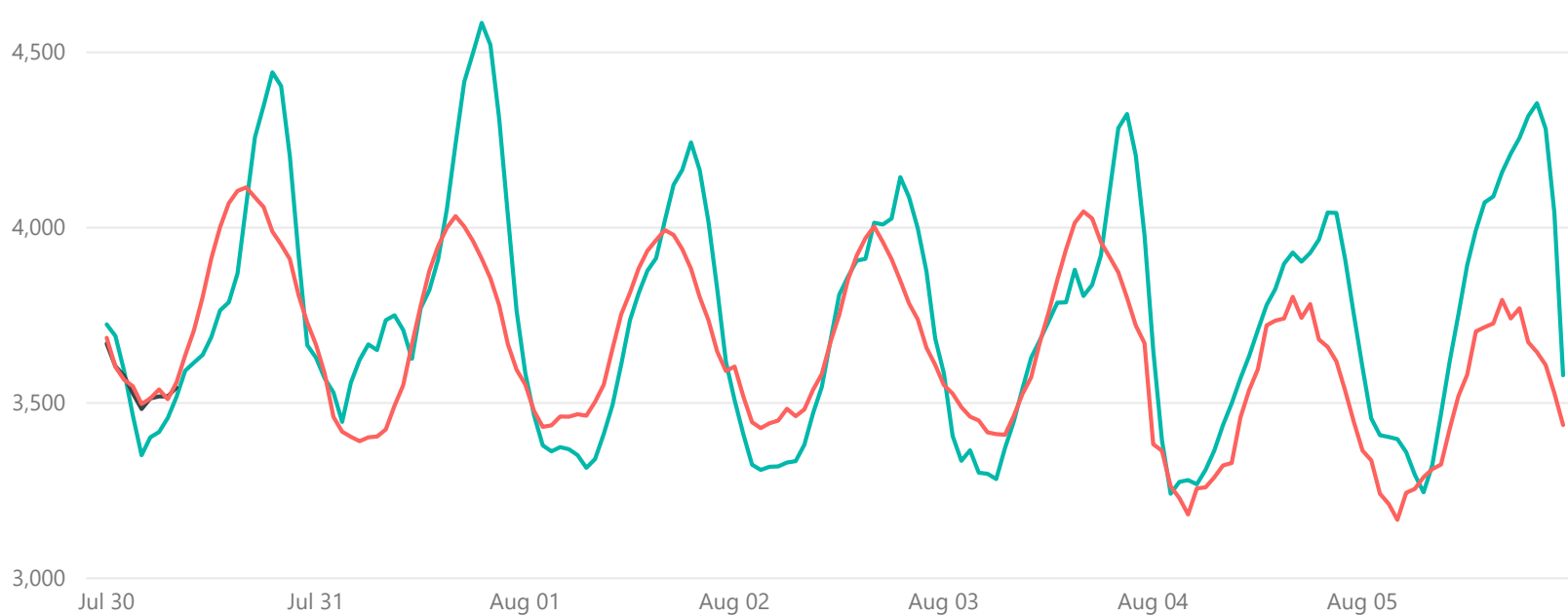
ERCOT West

● M_West ● West_Actual ● ER_West_Frcst



ERCOT Far West

● M_Far West ● Far West_Actual ● ER_FarWest_Frcst



Morningstar 7-Day Forecast

Month	July		August				
Hour Ending	30	31	1	2	3	4	5
1	1,478	1,536	1,538	1,558	1,549	1,576	1,542
2	1,358	1,426	1,444	1,455	1,485	1,478	1,443
3	1,290	1,350	1,374	1,384	1,443	1,396	1,369
4	1,263	1,306	1,330	1,341	1,430	1,363	1,327
5	1,266	1,281	1,303	1,325	1,416	1,350	1,320
6	1,270	1,284	1,289	1,317	1,363	1,310	1,323
7	1,305	1,303	1,289	1,318	1,322	1,291	1,328
8	1,356	1,336	1,302	1,331	1,299	1,299	1,343
9	1,400	1,399	1,333	1,366	1,310	1,336	1,361
10	1,468	1,486	1,403	1,406	1,361	1,373	1,412
11	1,569	1,599	1,513	1,487	1,449	1,440	1,493
12	1,682	1,714	1,656	1,617	1,578	1,562	1,617
13	1,785	1,798	1,780	1,741	1,706	1,687	1,753
14	1,877	1,892	1,864	1,833	1,802	1,789	1,845
15	1,943	1,939	1,920	1,900	1,888	1,873	1,912
16	1,996	1,977	1,943	1,933	1,927	1,910	1,936
17	1,999	1,995	1,936	1,939	1,934	1,935	1,919
18	1,991	1,999	1,921	1,924	1,911	1,914	1,916
19	1,991	1,999	1,921	1,924	1,911	1,914	1,916

Actual	
Hour Ending	30
1	1,441
2	1,359
3	1,283
4	1,246
5	1,240
6	1,220
7	1,261
8	1,305
9	1,346

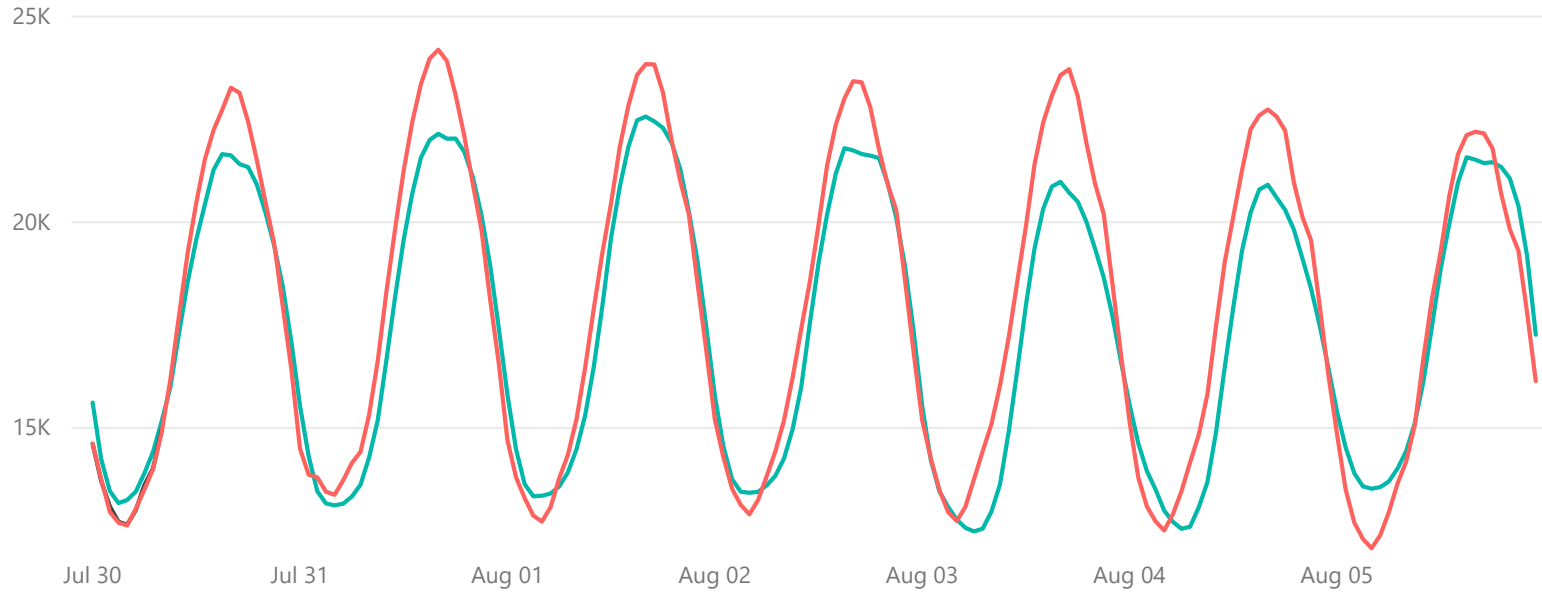
Morningstar 7-Day Forecast

Month	July		August				
Hour Ending	30	31	1	2	3	4	5
1	3,724	3,629	3,585	3,508	3,584	3,651	3,601
2	3,691	3,570	3,465	3,411	3,406	3,394	3,456
3	3,591	3,530	3,379	3,324	3,335	3,241	3,408
4	3,464	3,446	3,362	3,309	3,365	3,275	3,403
5	3,351	3,558	3,374	3,318	3,301	3,280	3,397
6	3,402	3,623	3,368	3,319	3,298	3,268	3,360
7	3,417	3,667	3,351	3,330	3,283	3,309	3,295
8	3,457	3,651	3,315	3,334	3,371	3,364	3,245
9	3,517	3,736	3,340	3,381	3,446	3,437	3,323
10	3,592	3,750	3,412	3,471	3,540	3,499	3,469
11	3,615	3,708	3,494	3,546	3,629	3,570	3,619
12	3,637	3,626	3,610	3,679	3,679	3,634	3,753
13	3,688	3,770	3,736	3,809	3,732	3,708	3,893
14	3,764	3,822	3,813	3,860	3,786	3,779	3,993
15	3,787	3,909	3,877	3,906	3,787	3,825	4,072
16	3,869	4,052	3,913	3,911	3,880	3,897	4,089
17	4,065	4,238	4,020	4,014	3,805	3,929	4,158
18	4,258	4,416	4,122	4,009	3,837	3,903	4,211

Actual	
Hour Ending	30
1	3,669
2	3,605
3	3,577
4	3,527
5	3,483
6	3,513
7	3,519
8	3,518
9	3,544

ERCOT North Central

● M_North Central ● North Central_Actual ● ER_NorthCentral_Frcst



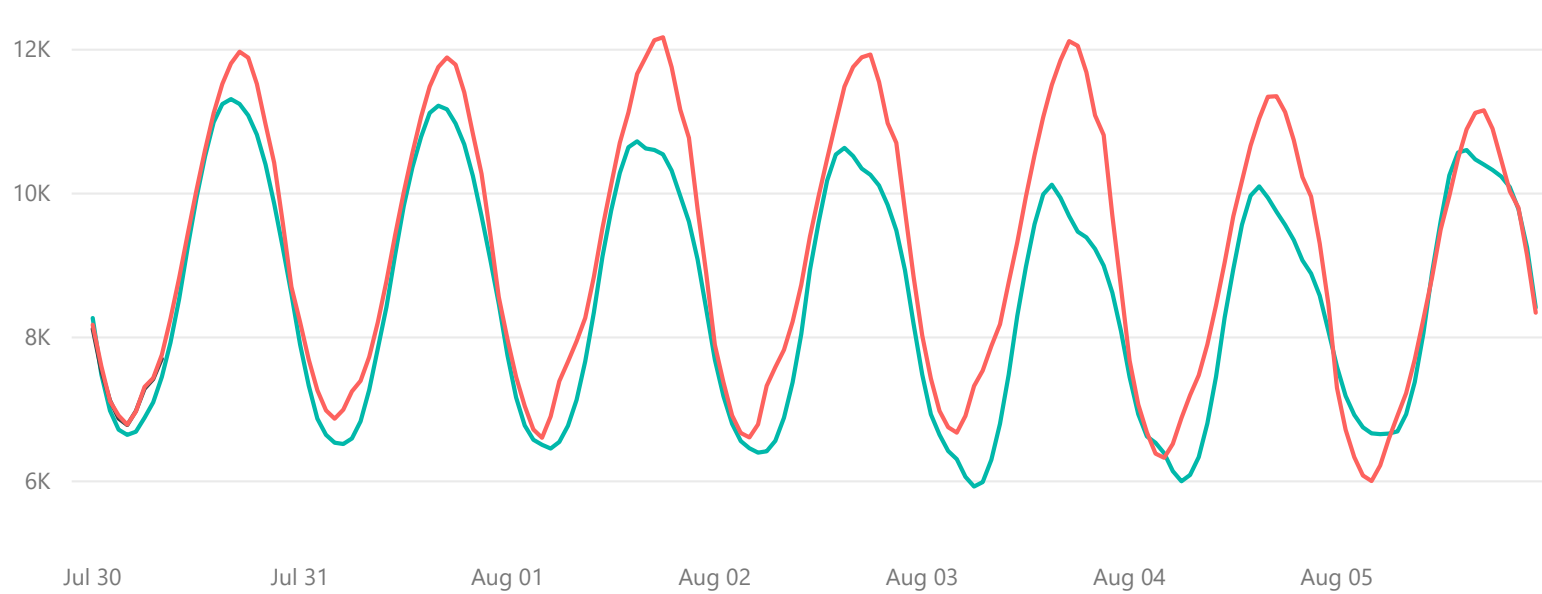
Morningstar 7-Day Forecast

Month	July		August					
Hour Ending	30	31	1	2	3	4	5	
1	15,614	15,535	15,811	15,787	15,524	15,562	15,393	▲
2	14,235	14,313	14,477	14,544	14,212	14,627	14,524	
3	13,460	13,459	13,630	13,751	13,448	13,949	13,896	
4	13,170	13,162	13,336	13,445	13,079	13,503	13,577	
5	13,246	13,115	13,349	13,422	12,769	12,988	13,520	
6	13,450	13,156	13,403	13,443	12,569	12,717	13,558	
7	13,899	13,329	13,578	13,600	12,481	12,545	13,697	
8	14,423	13,616	13,919	13,833	12,549	12,597	14,009	
9	15,167	14,284	14,484	14,253	12,958	13,068	14,432	
10	15,991	15,190	15,307	14,966	13,624	13,678	15,118	
11	17,297	16,648	16,491	15,991	14,892	14,897	16,126	
12	18,546	18,179	17,984	17,545	16,403	16,460	17,488	
13	19,581	19,578	19,630	19,003	17,978	17,934	18,869	
14	20,440	20,709	20,856	20,193	19,365	19,299	19,965	
15	21,276	21,575	21,834	21,180	20,327	20,235	20,966	
16	21,656	22,000	22,477	21,801	20,866	20,795	21,580	
17	21,626	22,151	22,569	21,747	20,982	20,912	21,522	▼
18	21,414	22,031	22,452	21,659	20,722	20,602	21,438	▼

Actual	
Hour Ending	30
1	14,614
2	13,703
3	13,088
4	12,715
5	12,646
6	13,000
7	13,610
8	14,022
9	14,969

ERCOT South Central

● M_South Central ● South Central_Actual ● ER_SouthCentral_Frcst



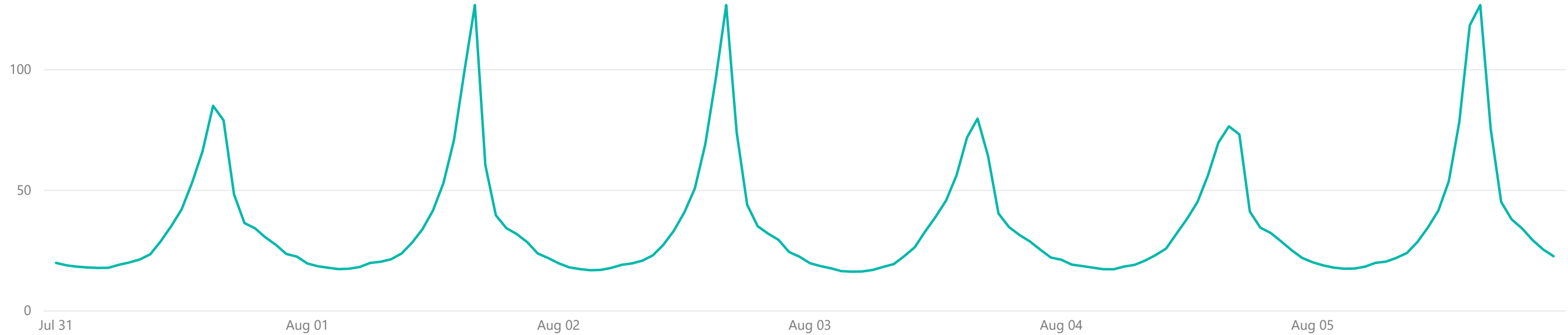
Morningstar 7-Day Forecast

Month	July		August					
Hour Ending	30	31	1	2	3	4	5	
1	8,270	7,902	7,753	7,692	7,484	7,449	7,593	▲
2	7,486	7,332	7,166	7,182	6,932	6,934	7,187	
3	6,983	6,871	6,776	6,799	6,648	6,625	6,924	
4	6,718	6,646	6,578	6,560	6,422	6,536	6,751	
5	6,646	6,537	6,508	6,460	6,308	6,391	6,667	
6	6,690	6,519	6,456	6,399	6,063	6,142	6,656	
7	6,884	6,596	6,548	6,418	5,928	6,001	6,664	
8	7,098	6,834	6,772	6,563	5,990	6,089	6,694	
9	7,451	7,272	7,132	6,884	6,300	6,337	6,932	
10	7,928	7,847	7,668	7,376	6,800	6,806	7,380	
11	8,533	8,426	8,348	8,046	7,479	7,453	8,057	
12	9,257	9,149	9,128	8,933	8,299	8,277	8,899	
13	9,933	9,827	9,763	9,593	8,982	8,949	9,616	
14	10,517	10,364	10,286	10,183	9,575	9,566	10,253	
15	10,992	10,787	10,644	10,543	9,989	9,971	10,570	
16	11,244	11,121	10,726	10,635	10,123	10,100	10,605	
17	11,313	11,221	10,627	10,521	9,941	9,943	10,475	▼
18	11,245	11,171	10,606	10,347	9,688	9,747	10,403	▼

Actual	
Hour Ending	30
1	8,120
2	7,535
3	7,125
4	6,872
5	6,783
6	6,977
7	7,287
8	7,420
9	7,704

ERCOT-Houston Hub Day-Ahead Forecast

● Houston_Forecast ● HB_Houston_Settle



Houston Hub On-Peak Forecast

Month	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total
July																	
31	19.14	20.12	21.35	23.50	28.90	35.14	42.16	53.25	66.28	85.08	79.08	48.38	36.45	34.30	30.52	27.42	40.69
August																	
1	19.93	20.42	21.45	23.83	28.32	33.93	41.68	53.06	70.78	99.40	126.84	60.48	39.71	34.37	31.89	28.55	45.92
2	19.12	19.72	20.87	23.10	27.46	33.28	40.86	50.76	69.13	96.25	126.84	73.98	44.07	35.16	32.08	29.48	46.39
3	17.03	18.29	19.45	22.74	26.41	32.99	39.06	45.84	56.35	71.97	79.77	64.30	40.41	34.82	31.52	28.83	39.36
4	18.44	19.13	20.90	23.17	25.87	32.07	38.20	45.18	56.22	69.84	76.55	73.21	41.22	34.56	32.33	28.83	39.73
5	19.96	20.47	22.03	24.04	28.59	34.61	41.60	53.82	78.33	118.43	126.84	75.47	45.18	37.98	34.20	29.40	49.43

Houston Hub Off-Peak Forecast

Month	1	2	3	4	5	6	23	24	Total
July									
31	19.95	18.93	18.38	18.05	17.86	17.91	23.64	22.56	19.66
August									
1	19.71	18.56	17.92	17.36	17.53	18.25	23.84	21.95	19.39
2	19.78	18.10	17.39	16.91	17.03	17.84	24.46	22.51	19.25
3	19.81	18.62	17.69	16.53	16.30	16.39	25.40	22.16	19.11
4	21.25	19.22	18.63	17.96	17.34	17.30	25.18	21.98	19.86
5	20.20	18.92	17.98	17.53	17.60	18.39	25.53	22.69	19.86

Houston Hub On Peak Settlement

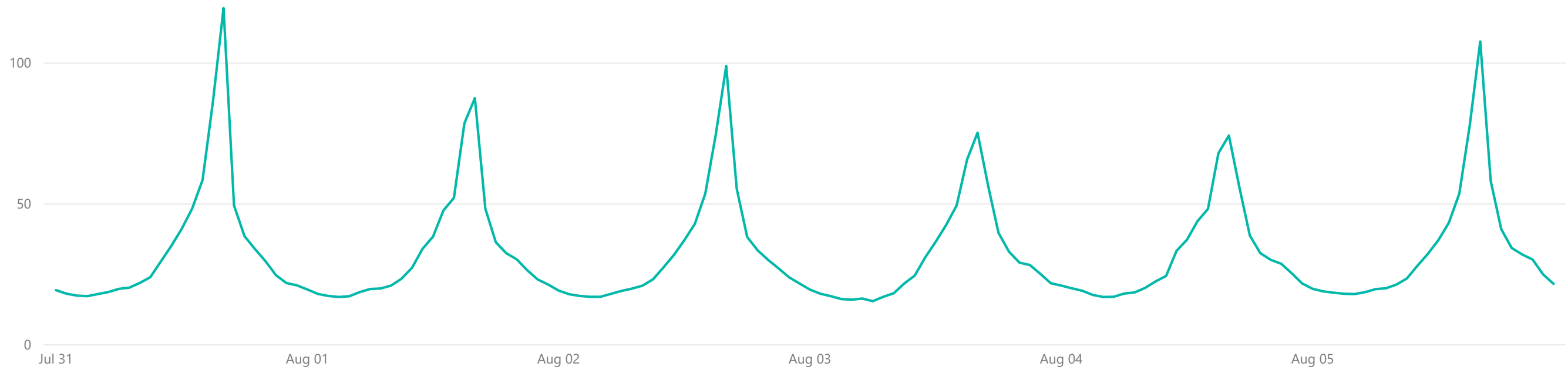
Month	Total

Houston Hub Off-Peak Forecast

Month	Total

ERCOT-North Hub Day-Ahead Forecast

● North_Forecast ● HB_North_Settle



North Hub On-Peak Forecast

Month	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total
July																	
31	19.86	20.30	21.96	23.99	29.51	35.05	41.12	48.33	58.52	86.68	119.53	49.47	38.60	34.00	29.71	24.75	42.59
August																	
1	19.82	20.00	21.03	23.48	27.36	34.06	38.40	47.70	52.17	78.65	87.56	48.31	36.41	32.51	30.35	26.47	39.02
2	19.14	19.95	21.00	23.23	27.44	31.89	37.14	42.91	53.65	74.59	98.94	55.49	38.29	33.55	30.15	27.13	39.66
3	15.50	17.05	18.31	21.76	24.57	31.03	36.56	42.55	49.44	65.75	75.29	56.62	39.74	33.08	29.18	28.33	36.55
4	18.19	18.60	20.20	22.52	24.43	33.36	37.33	43.88	48.23	68.03	74.28	55.94	38.79	32.54	30.16	28.77	37.20
5	19.77	20.08	21.40	23.57	28.06	32.30	37.13	43.32	53.66	77.93	107.67	58.20	41.11	34.40	32.08	30.28	41.31

North Hub Off Peak Forecast

Month	1	2	3	4	5	6	23	24	Total
July									
31	19.41	18.16	17.47	17.27	18.02	18.74	21.94	21.13	19.02
August									
1	19.65	18.08	17.35	16.99	17.24	18.71	23.20	21.40	19.08
2	19.26	17.97	17.36	17.05	17.06	18.10	23.98	21.76	19.07
3	19.59	18.13	17.26	16.24	16.03	16.43	25.17	21.85	18.84
4	21.02	20.07	19.19	17.71	16.99	17.06	25.39	21.77	19.90
5	19.88	18.98	18.51	18.13	18.02	18.69	25.01	21.64	19.86

North Hub Off-Peak Actual

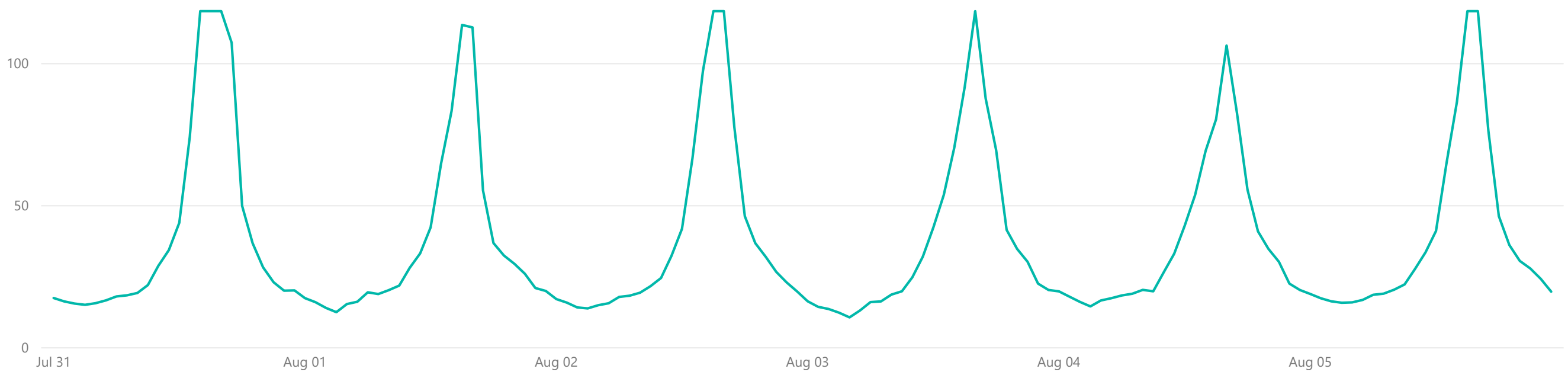
Month	Total
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North Hub Off-Peak Actual

Month	Total
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ERCOT-West Hub Day-Ahead Forecast

● West_Forecast ● HB_West_Settle



West Hub Peak Forecast

Month	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total
July																	
31	18.08	18.47	19.30	22.08	28.86	34.38	44.01	74.18	118.47	118.47	118.47	107.35	49.94	36.83	28.32	23.09	53.77
August																	
1	19.54	18.92	20.29	21.89	28.14	33.23	42.38	64.89	83.36	113.62	112.75	55.40	36.86	32.47	29.56	26.05	46.21
2	17.91	18.34	19.40	21.70	24.57	32.38	41.86	66.67	97.39	118.47	118.47	77.65	46.32	36.83	32.01	26.73	49.79
3	16.09	16.33	18.73	19.89	24.83	32.10	42.32	53.81	70.41	91.84	118.47	87.70	69.52	41.50	34.81	30.28	48.04
4	18.43	19.03	20.39	19.89	26.57	33.11	42.93	53.81	69.28	80.43	106.36	82.50	55.66	40.99	34.81	30.28	45.90
5	18.66	19.06	20.45	22.30	27.77	33.60	41.11	64.89	86.59	118.47	118.47	76.42	46.34	36.20	30.59	27.93	49.30

West Hub Off Peak Forecast

Month	1	2	3	4	5	6	23	24	Total
July									
31	17.53	16.34	15.57	15.13	15.70	16.70	20.11	20.20	17.16
August									
1	17.48	16.06	14.05	12.54	15.40	16.21	21.04	20.00	16.60
2	17.15	15.91	14.21	13.87	14.99	15.68	22.99	19.81	16.83
3	16.38	14.42	13.66	12.36	10.71	13.14	22.60	20.35	15.45
4	19.86	18.00	16.16	14.57	16.66	17.46	22.60	20.35	18.21
5	18.94	17.44	16.36	15.86	15.99	16.86	24.28	19.76	18.19

West Hub Peak Actual

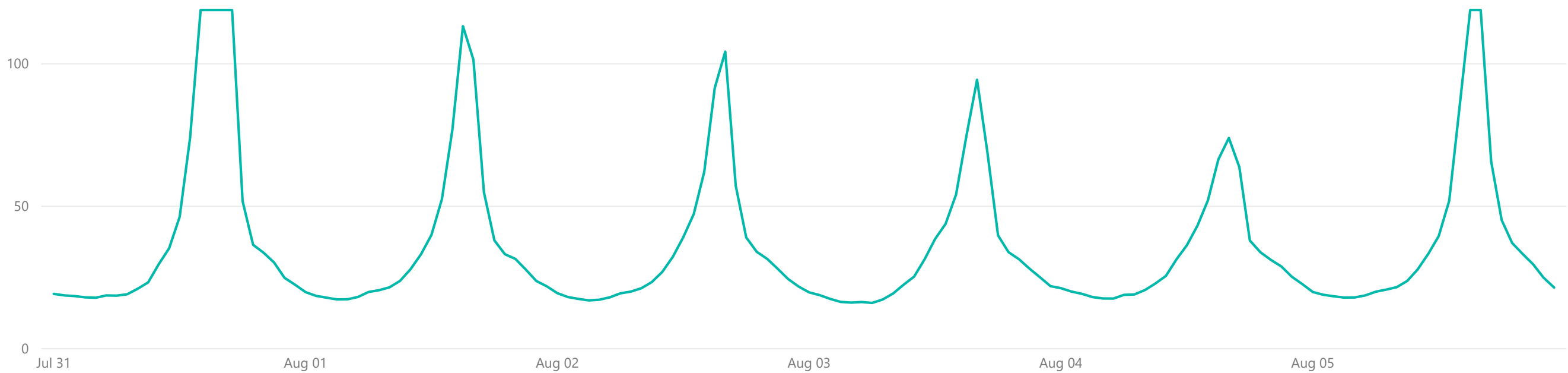
Month	Total
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West Hub Off Peak Actual

Month	Total
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ERCOT- South Hub Day-Ahead Forecast

● South_Forecast ● HB_South_Settle



South Hub Peak Forecast

Month	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Total
July																	
31	18.64	19.12	21.05	23.29	29.62	35.27	46.25	74.15	118.86	118.86	118.86	118.86	51.82	36.49	33.71	30.27	55.95
August																	
1	19.92	20.55	21.55	23.80	27.88	33.13	39.95	52.55	77.01	113.19	101.44	54.97	38.02	33.18	31.53	27.75	44.78
2	19.44	20.05	21.23	23.39	26.97	32.23	39.14	47.27	62.09	91.52	104.27	57.22	39.06	34.03	31.53	28.06	42.34
3	16.08	17.28	19.39	22.47	25.31	31.39	38.51	43.82	54.13	74.98	94.40	68.60	39.79	33.89	31.41	28.11	39.97
4	18.91	19.06	20.60	22.90	25.57	31.34	36.34	43.15	52.05	66.46	73.97	63.71	37.98	33.89	31.20	28.89	37.88
5	20.01	20.76	21.61	23.80	27.87	33.27	39.54	51.94	85.27	118.86	118.86	65.72	45.16	37.11	33.27	29.62	48.29

South Hub Off Peak Forecast

Month	1	2	3	4	5	6	23	24	Total
July									
31	19.26	18.73	18.49	18.04	17.90	18.71	24.88	22.47	19.81
August									
1	19.88	18.56	17.93	17.31	17.35	18.18	23.77	21.89	19.36
2	19.51	18.15	17.50	16.97	17.21	18.05	24.44	21.82	19.21
3	19.78	18.82	17.50	16.44	16.20	16.40	25.08	21.97	19.02
4	21.25	20.07	19.27	18.14	17.65	17.62	25.28	22.69	20.25
5	19.92	18.95	18.41	17.95	18.01	18.72	24.92	21.48	19.80

South Hub Peak Actual

Month	Total
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South Hub Off Peak Actual

Day	Total
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