

To the Public Utility Commission of Texas

ERCOT Wholesale Electricity Market Monthly Report

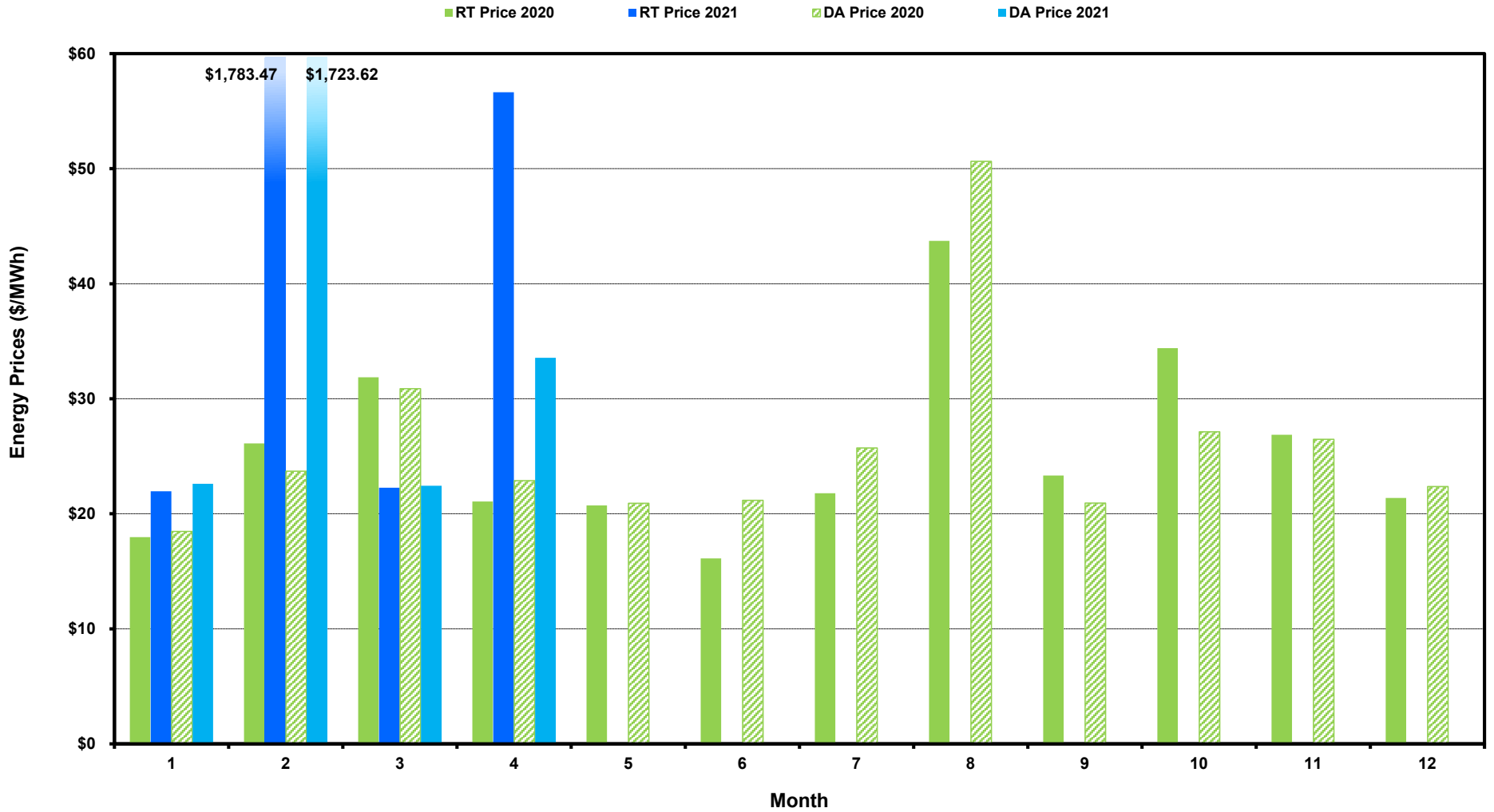
Monday, May 10, 2021

Potomac Economics, Ltd.
Independent Market Monitor

1	ERCOT-wide Average Energy Prices DA vs. RT	chart	table
2	Load Zone Load Statistics	chart	table
3	Load Zone Monthly Average Energy Prices DA vs RT	chart	table
4	ERCOT-wide Monthly Implied Heat Rates DA vs RT	chart	table
5	Load Zone Monthly Implied Heat Rates DA vs RT	chart	table
6	Daily ORDC Reserve Adder Avg. Value and Duration	chart	table
7	Monthly Ancillary Services Required MW	chart	table
8	Hourly Average of Ancillary Services Required MW	chart	table
9	Monthly Average Ancillary Services Price	chart	table
10	Monthly Average A/S Cost per MWh Load	chart	table
11	Ercot-wide Cumulative Peaker Net Margin	chart	table
12	DA vs. RT Load Forecast Error by Hour Ending	chart	table
13	Monthly Average of Wind Generation by Hour Ending	chart	table
14	RT Constraint Rankings		table
	- Top 10 Constraints by Total Congestion Value	chart	
	- Top 10 Constraints by Binding Frequency	chart	
15	DA Constraint Rankings		table
	- Top 10 Constraints by Total Congestion Value	chart	
	- Top 10 Constraints by Binding Frequency	chart	
16	CRR Pairs by Monthly Auction Value Rankings		table
	- Top 10 PTP Obligations by Total Transaction Value	chart	
	- Top 10 PTP Options by Total Transaction Value	chart	

ERCOT-wide Average Energy Prices DA vs RT

(avg. DA & RT SPPs weighted by Real Time Settlement Loads)



[Home <<](#)

[previous <<](#)

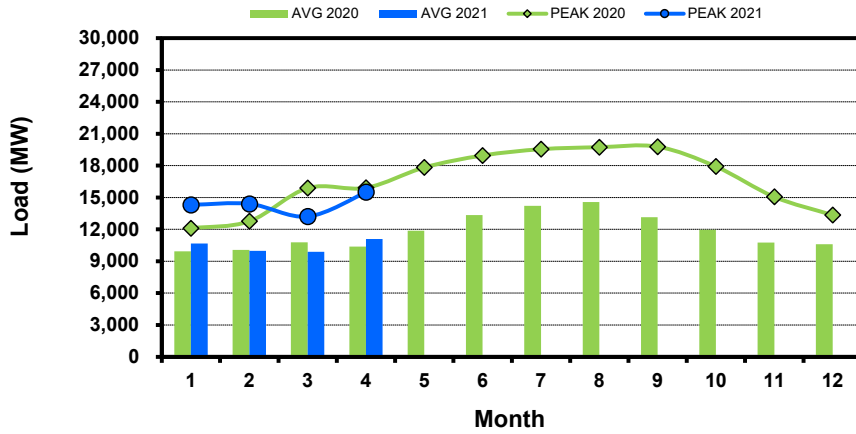
[next >>](#)

[data](#)

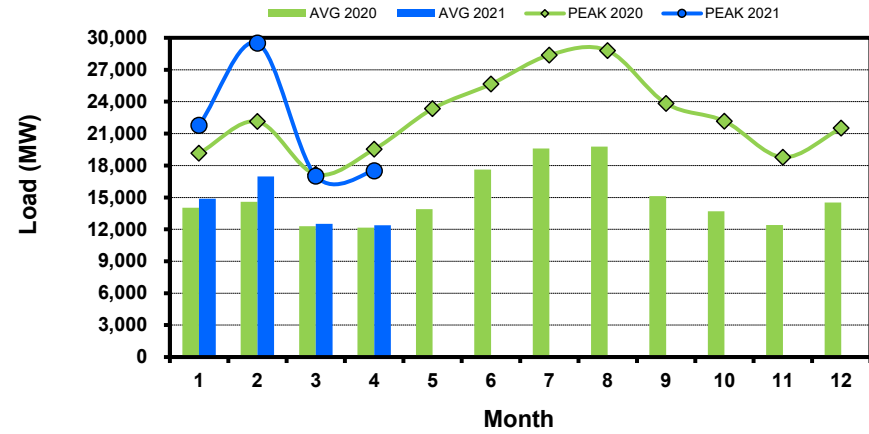
Load Zone Load Statistics

(Nodal load zone made comparable to zonal system Load Zone definitions*)

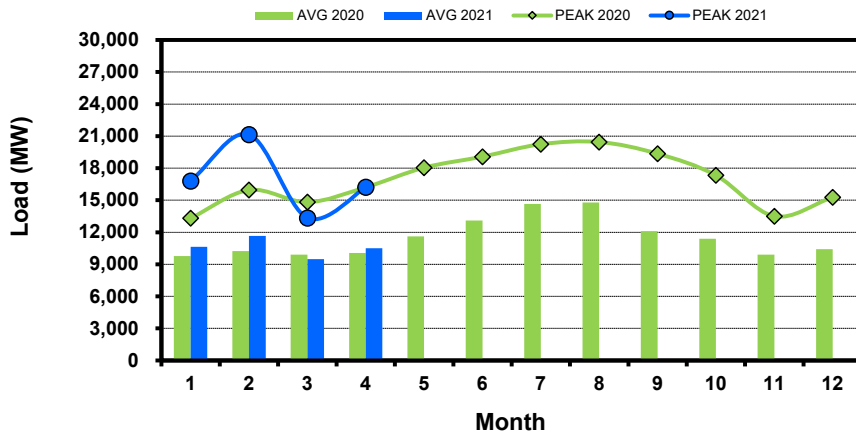
Houston Zone



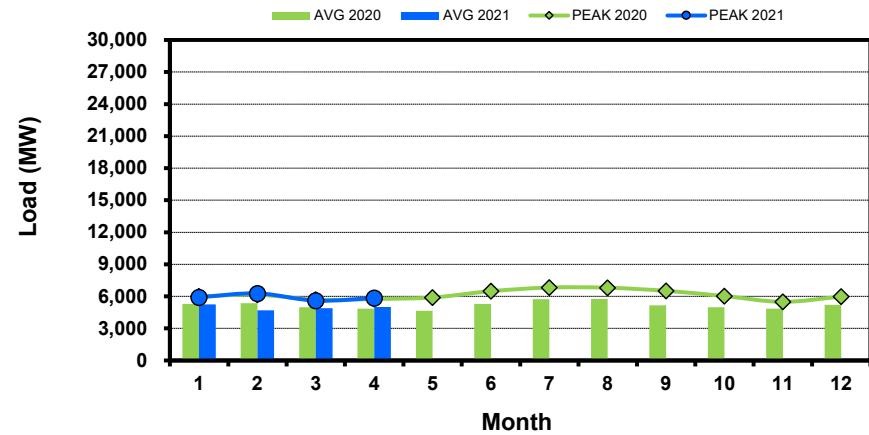
North Zone



South Zone



West Zone



[Home <<](#)

[previous <<](#)

[next >>](#)

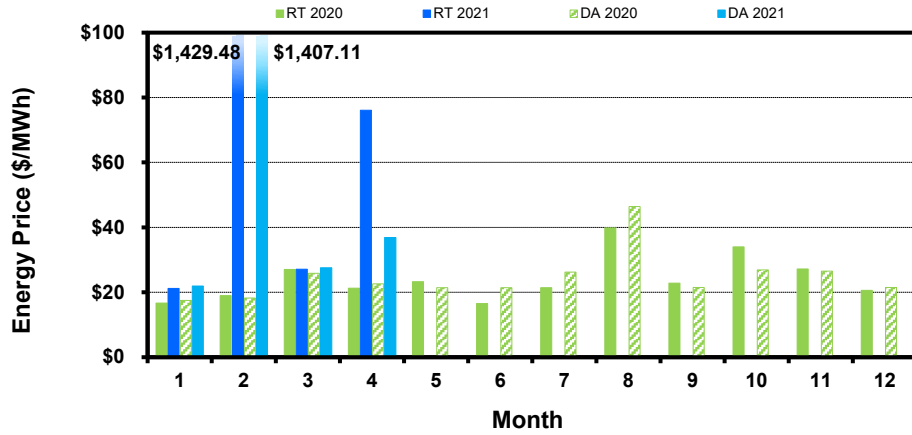
[data](#)

Note: * Zonal load zone definition vs. Nodal comparable load zone definition: LZ_Houston=LZ_Houston; LZ_West=LZ_West; LZ_North=(LZ_North,LZ_RAYBN); LZ_South=(LZ_South,LZ_CPS,LZ_AEN,LZ_LCRA)

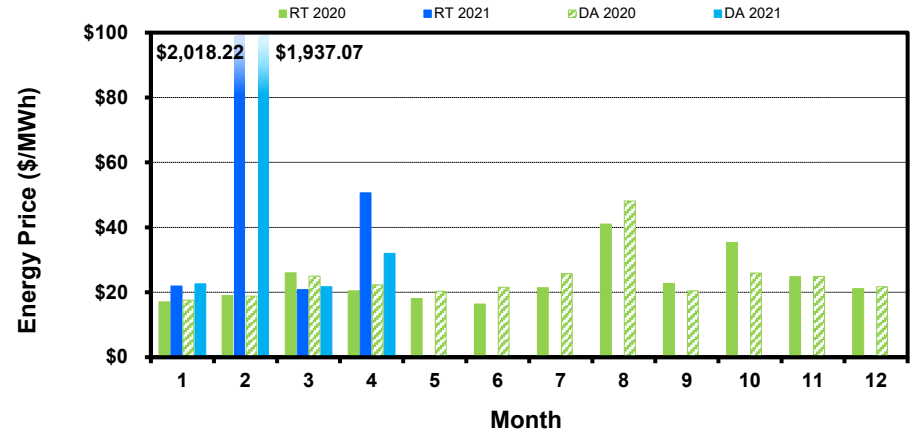
Load Zone Monthly Average Energy Price DA vs RT

(avg. DA & RT SPPs weighted by Real Time Settlement Loads)
 (Nodal load zone made comparable to zonal system Load Zone definitions*)

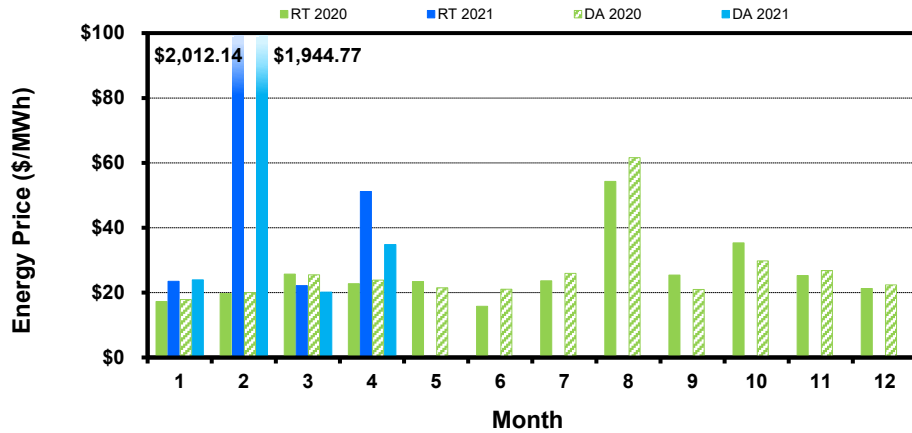
Houston Zone



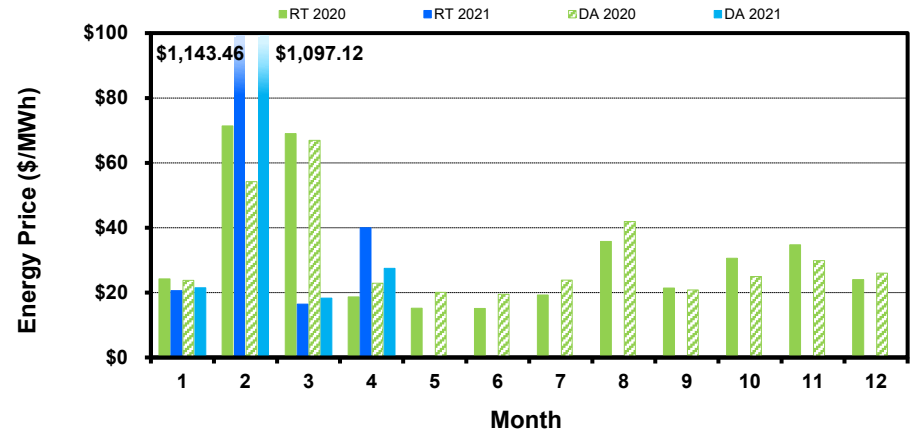
North Zone



South Zone



West Zone



[Home <<](#)

[previous <<](#)

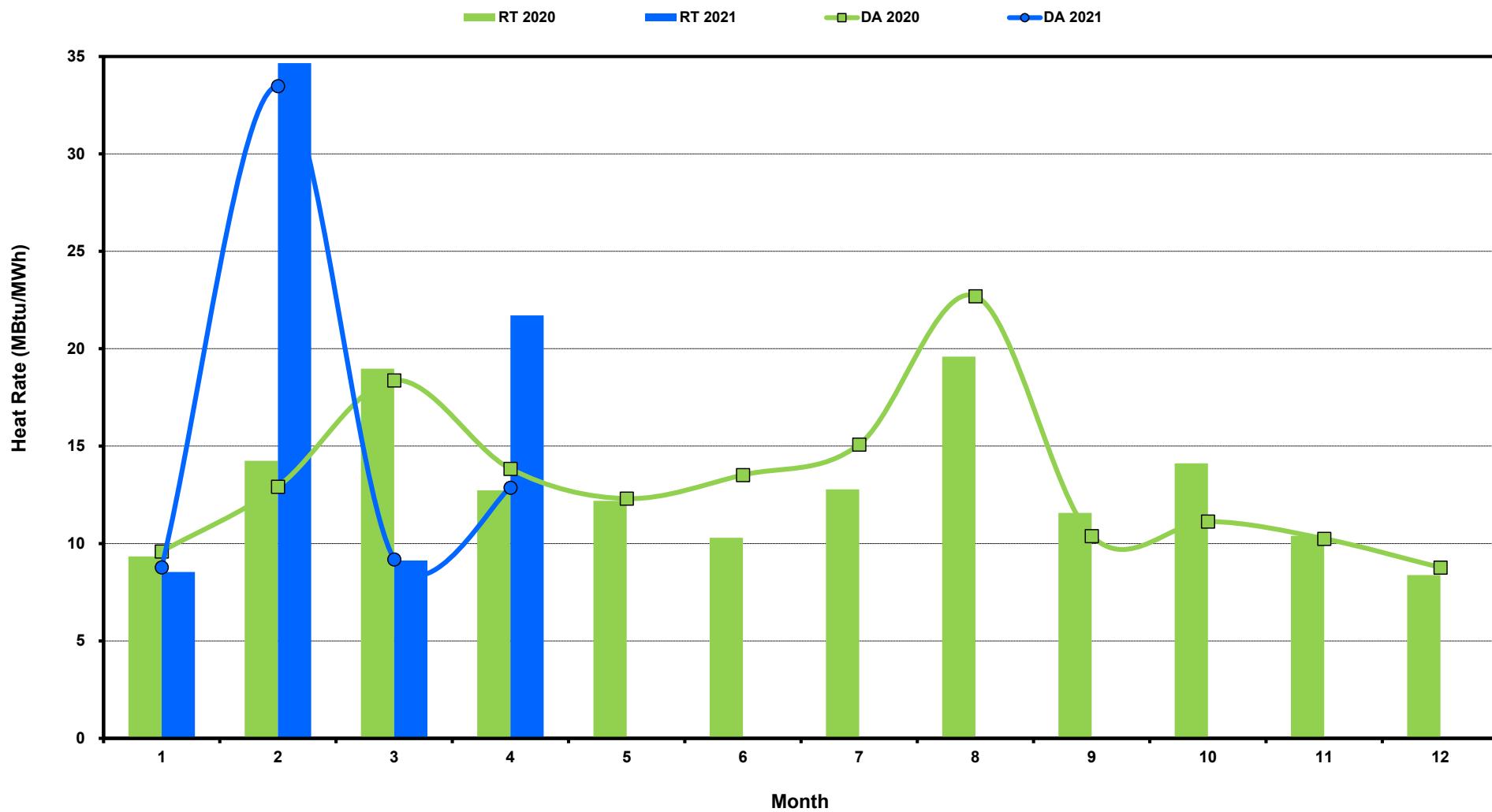
[next >>](#)

[data](#)

Note: * Zonal load zone definition vs. Nodal comparable load zone definition: LZ_Houston=LZ_Houston; LZ_West=LZ_West; LZ_North=(LZ_North,LZ_RAYBN); LZ_South=(LZ_South,LZ_CPS,LZ_AEN,LZ_LCRA)

ERCOT-wide Monthly Implied Heat Rate DA vs RT

(avg. heat rates weighted by Real Time Settlement Loads)



[Home <<](#)

[previous <<](#)

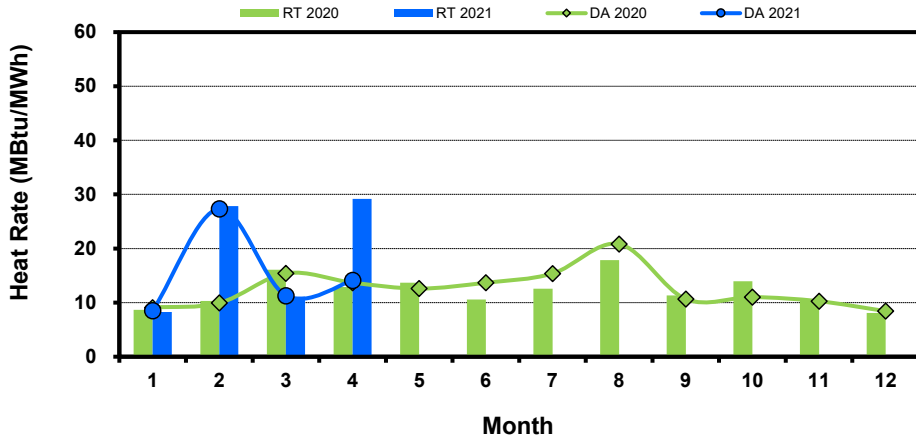
[next >>](#)

[data](#)

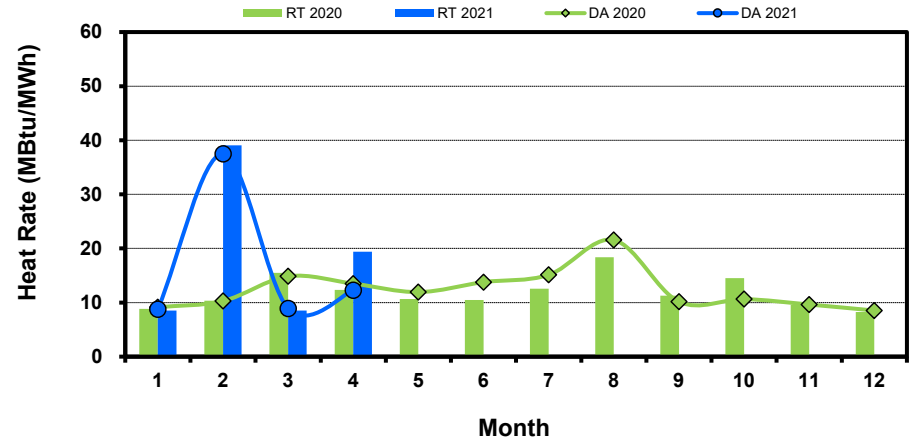
Load Zone Monthly Implied Heat Rate DA vs RT

(avg. heat rates weighted by Real Time Settlement Loads)
 (Nodal load zone made comparable to zonal system Load Zone definitions*)

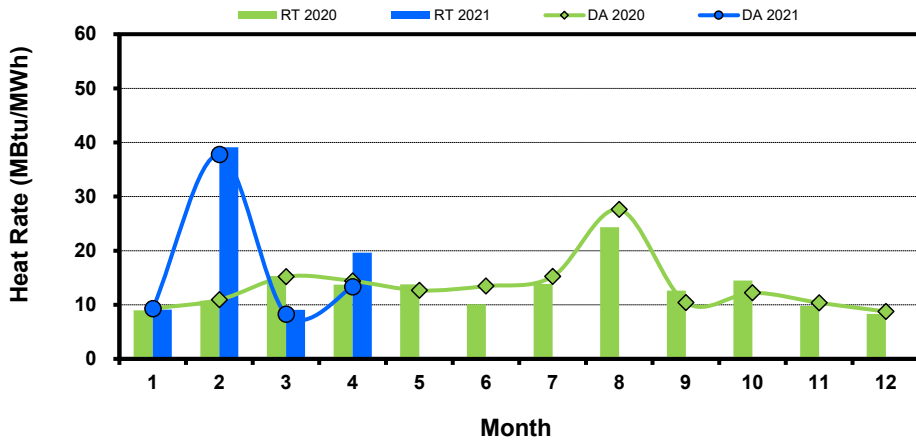
Houston Zone



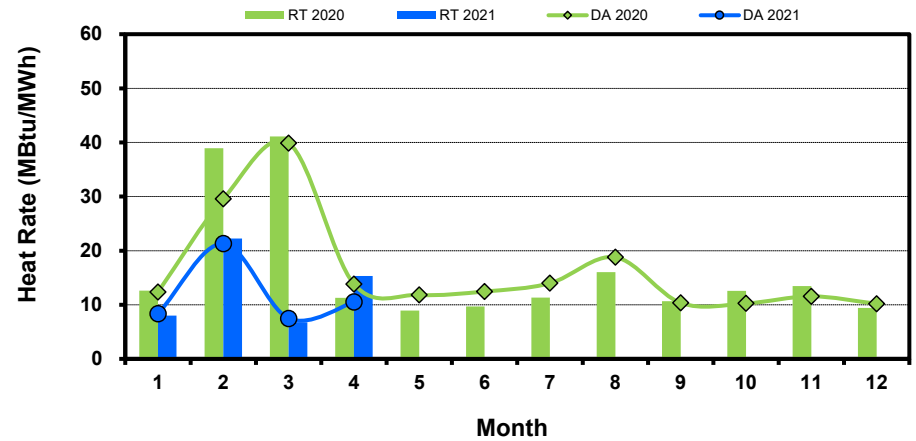
North Zone



South Zone



West Zone



[Home <<](#)

[previous <<](#)

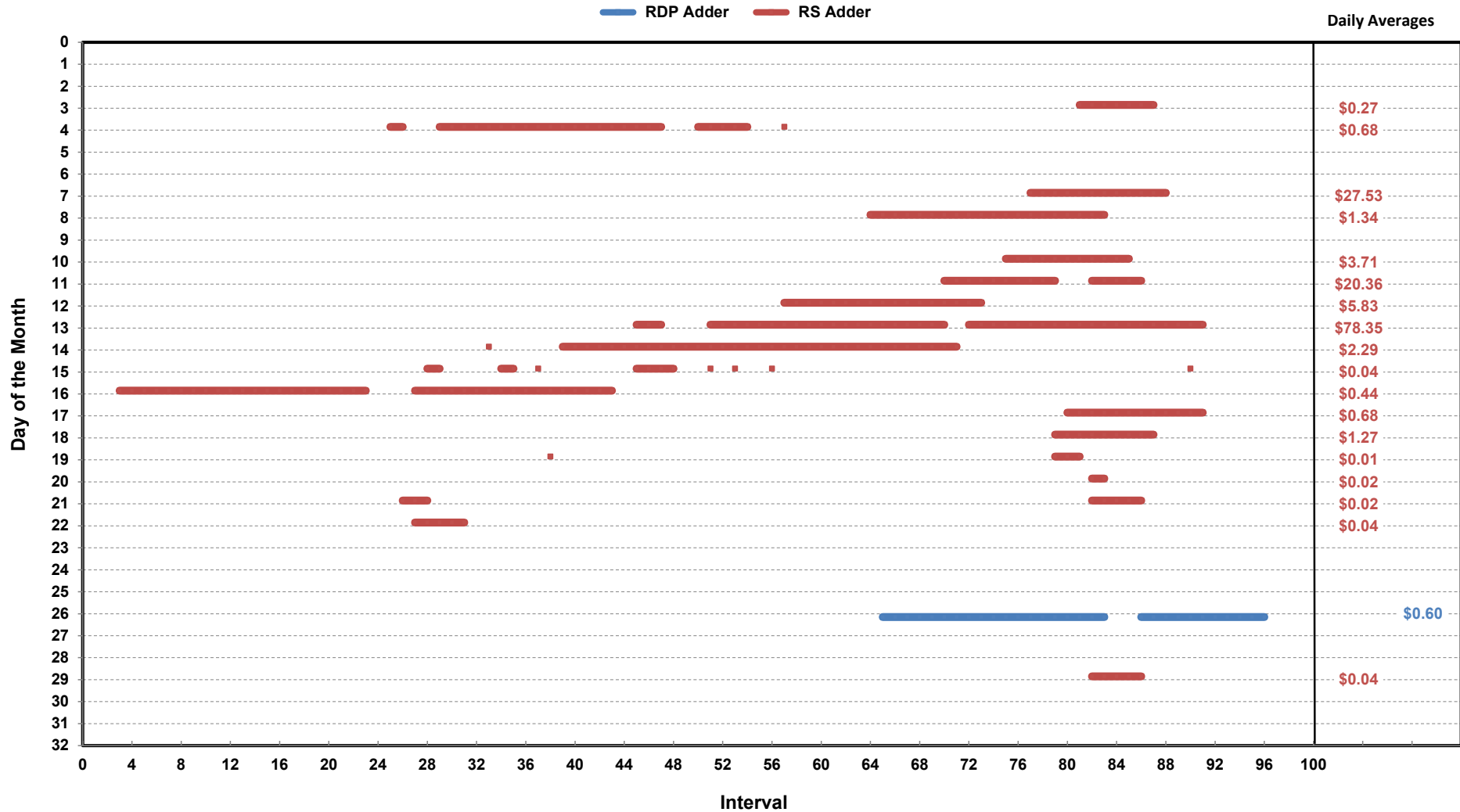
[next >>](#)

[data](#)

Note: * Zonal load zone definition vs. Nodal comparable load zone definition: LZ_Houston=LZ_Houston; LZ_West=LZ_West; LZ_North=(LZ_North,LZ_RAYBN); LZ_South=(LZ_South,LZ_CPS,LZ_AEN,LZ_LCRA)

Daily ORDC Adders Average Values and Interval Duration

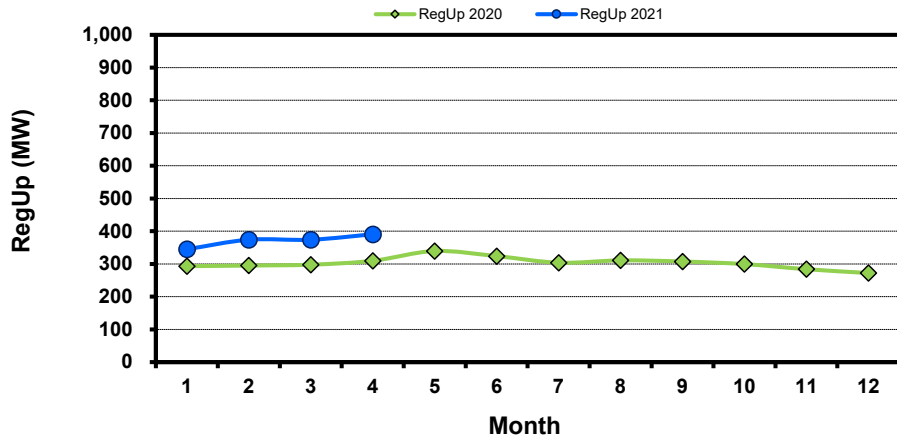
Apr-2021



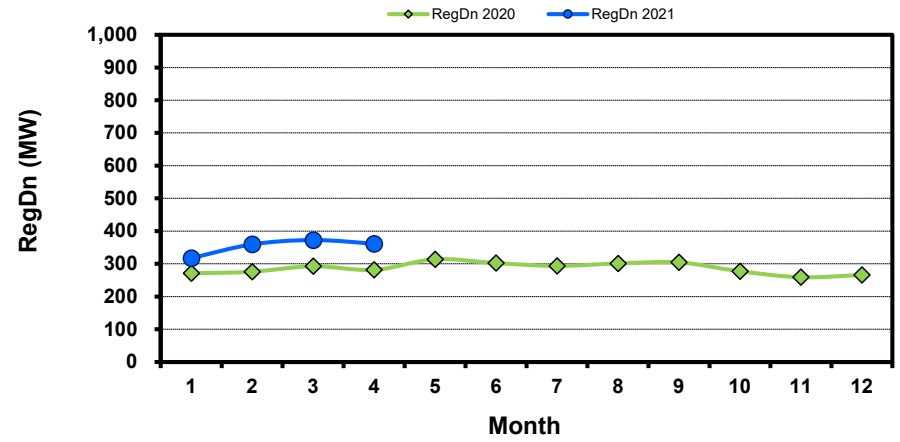
[Home <<](#)
[previous <<](#)
[next >>](#)
[data](#)

Monthly Average of Ancillary Services Required MW

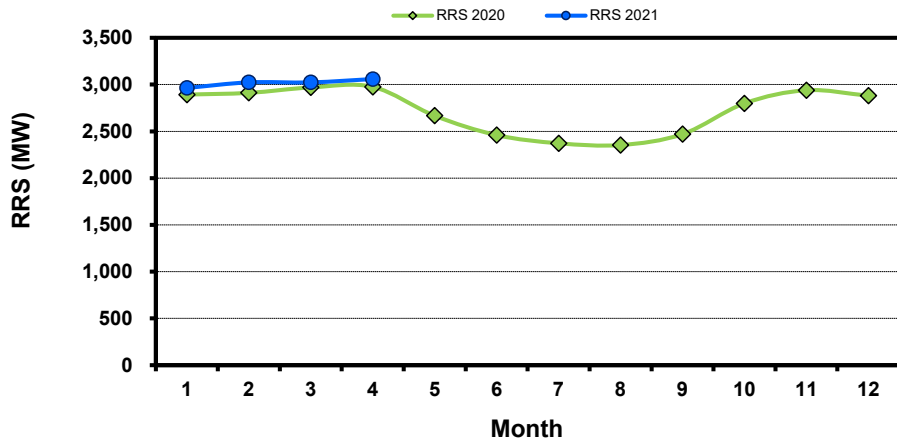
Regulation Up



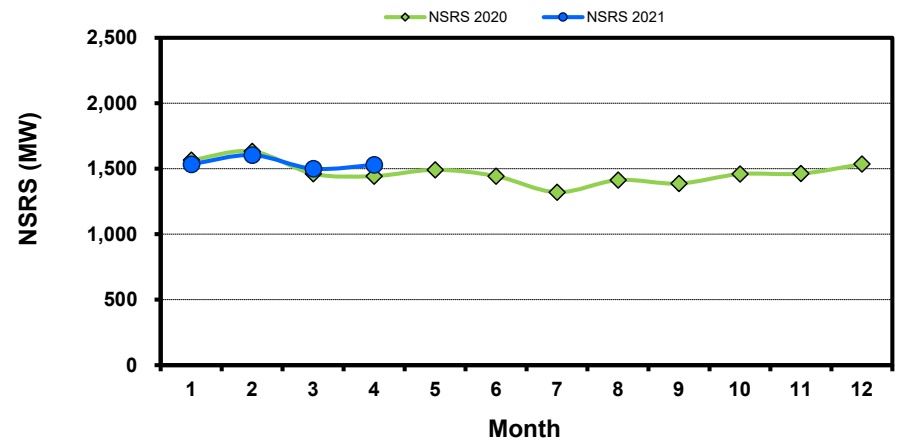
Regulation Down



Responsive Reserve



Non-Spin Reserve



[Home <<](#)

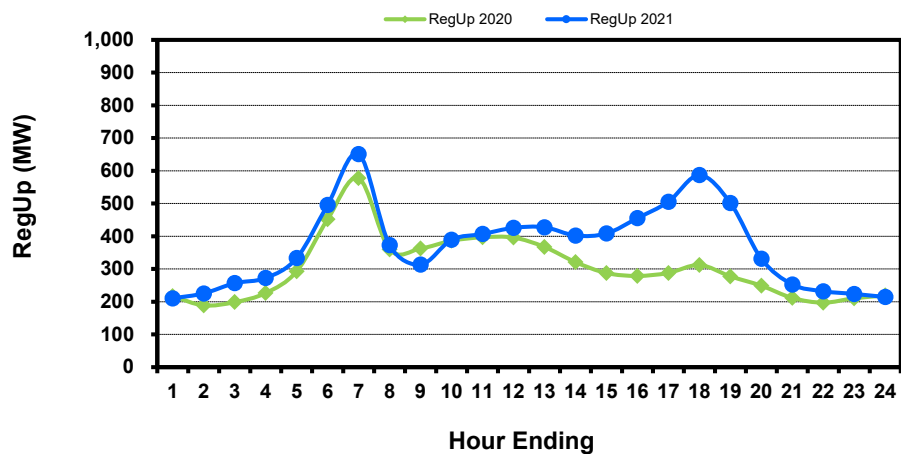
[previous <<](#)

[next >>](#)

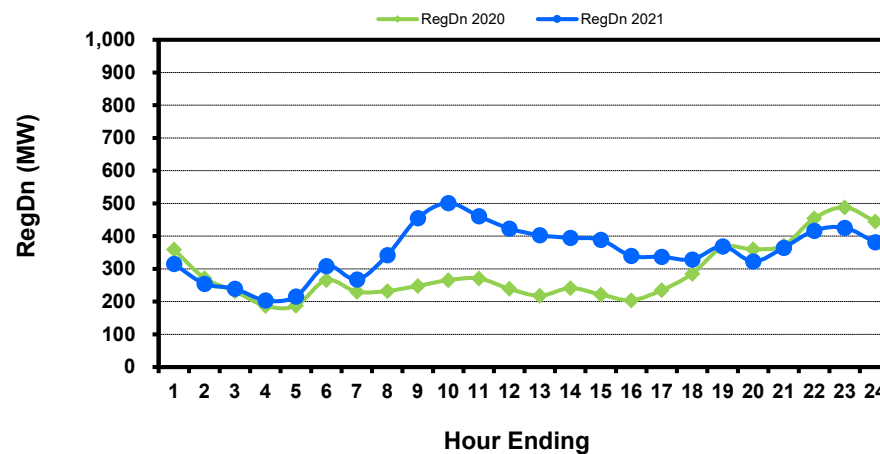
[data](#)

Hourly Average of Ancillary Services Required MW

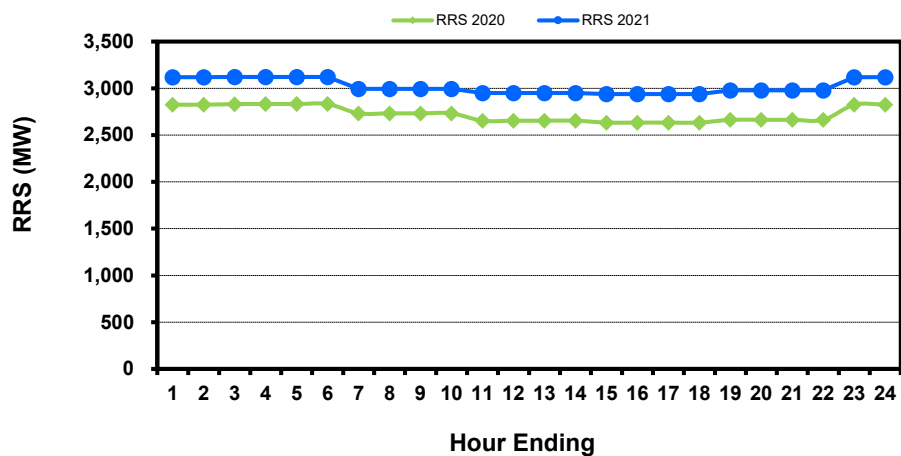
Regulation Up



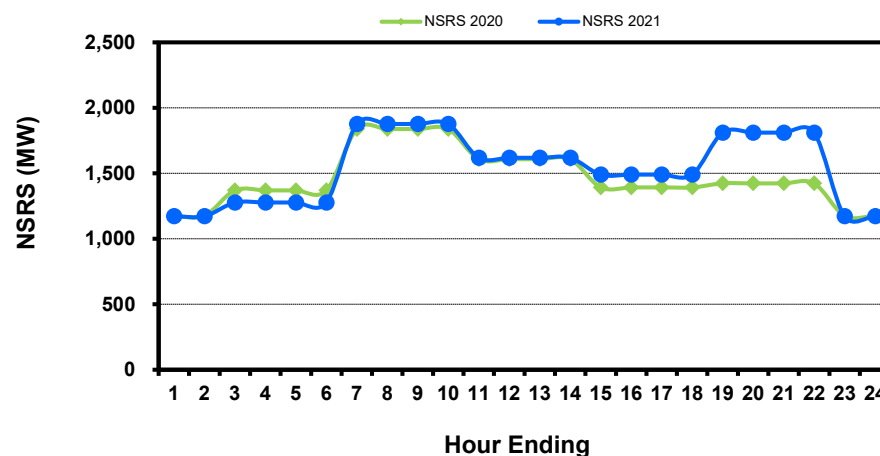
Regulation Down



Responsive Reserve



Non-Spin Reserve



[Home <<](#)

[previous <<](#)

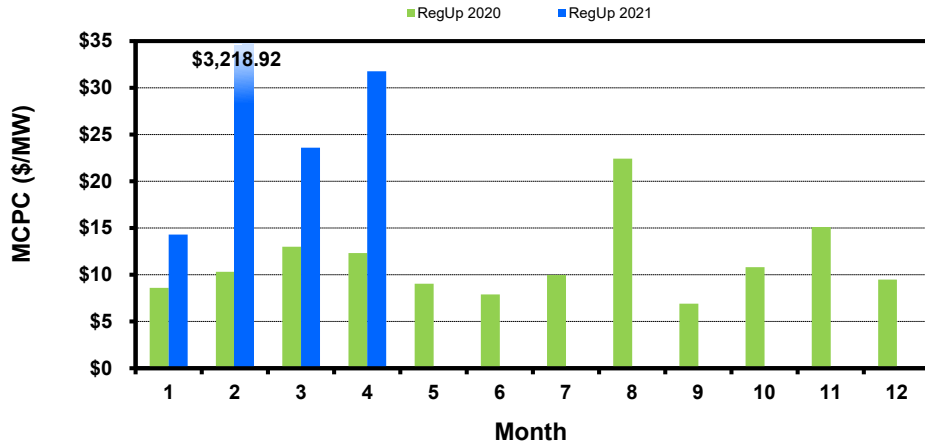
[next >>](#)

[data](#)

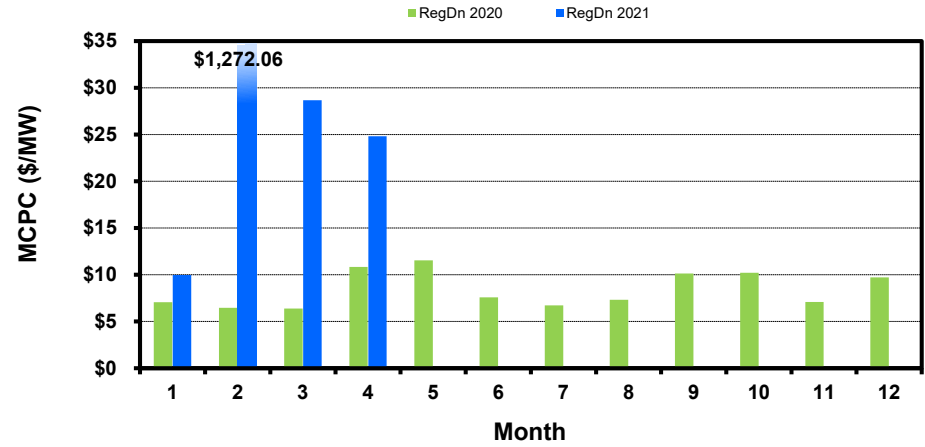
Monthly Average Ancillary Services Price

(weighted by A/S Quantities Required)

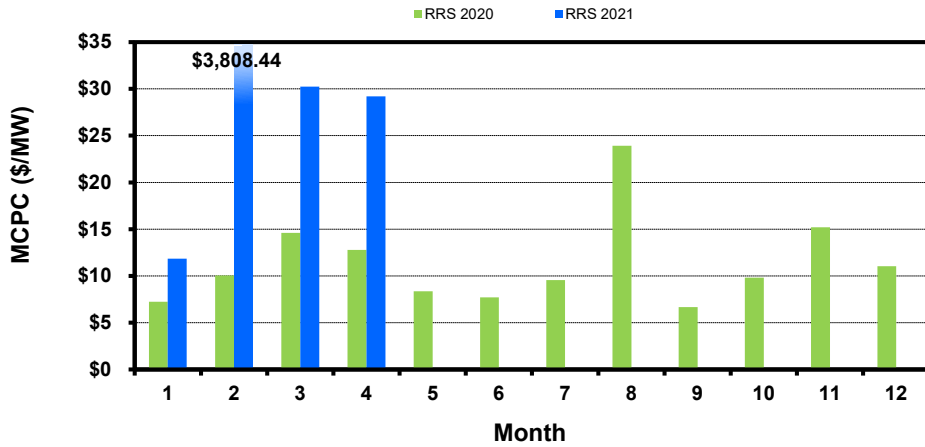
Regulation Up



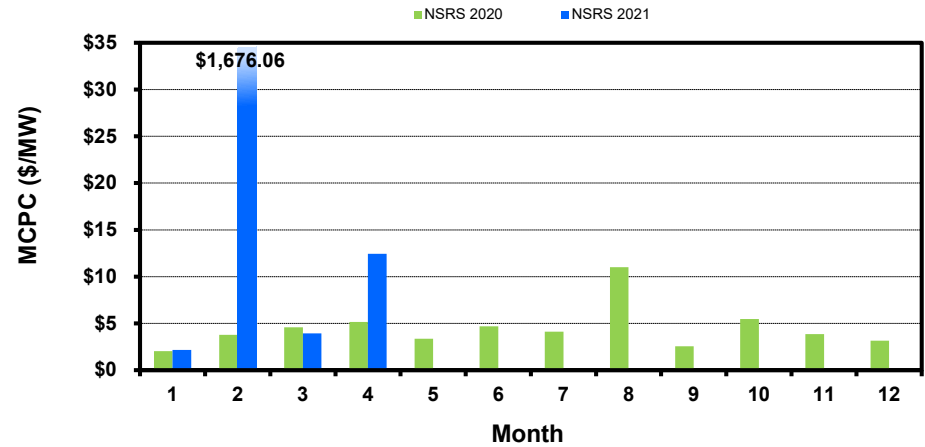
Regulation Down



Responsive Reserve



Non-Spin Reserve



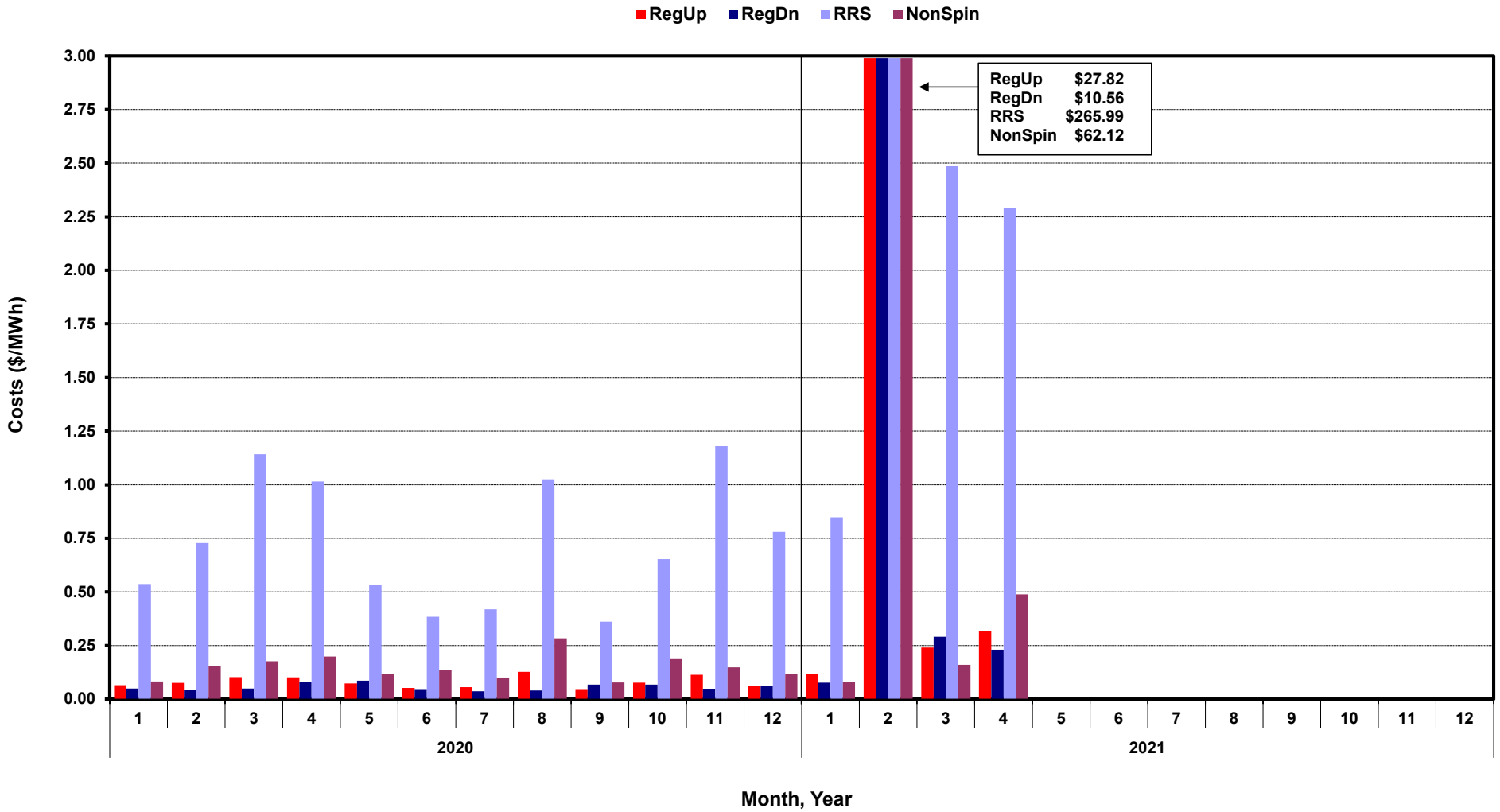
[Home <<](#)

[previous <<](#)

[next >>](#)

[data](#)

Monthly Average A/S Cost per MWh Load



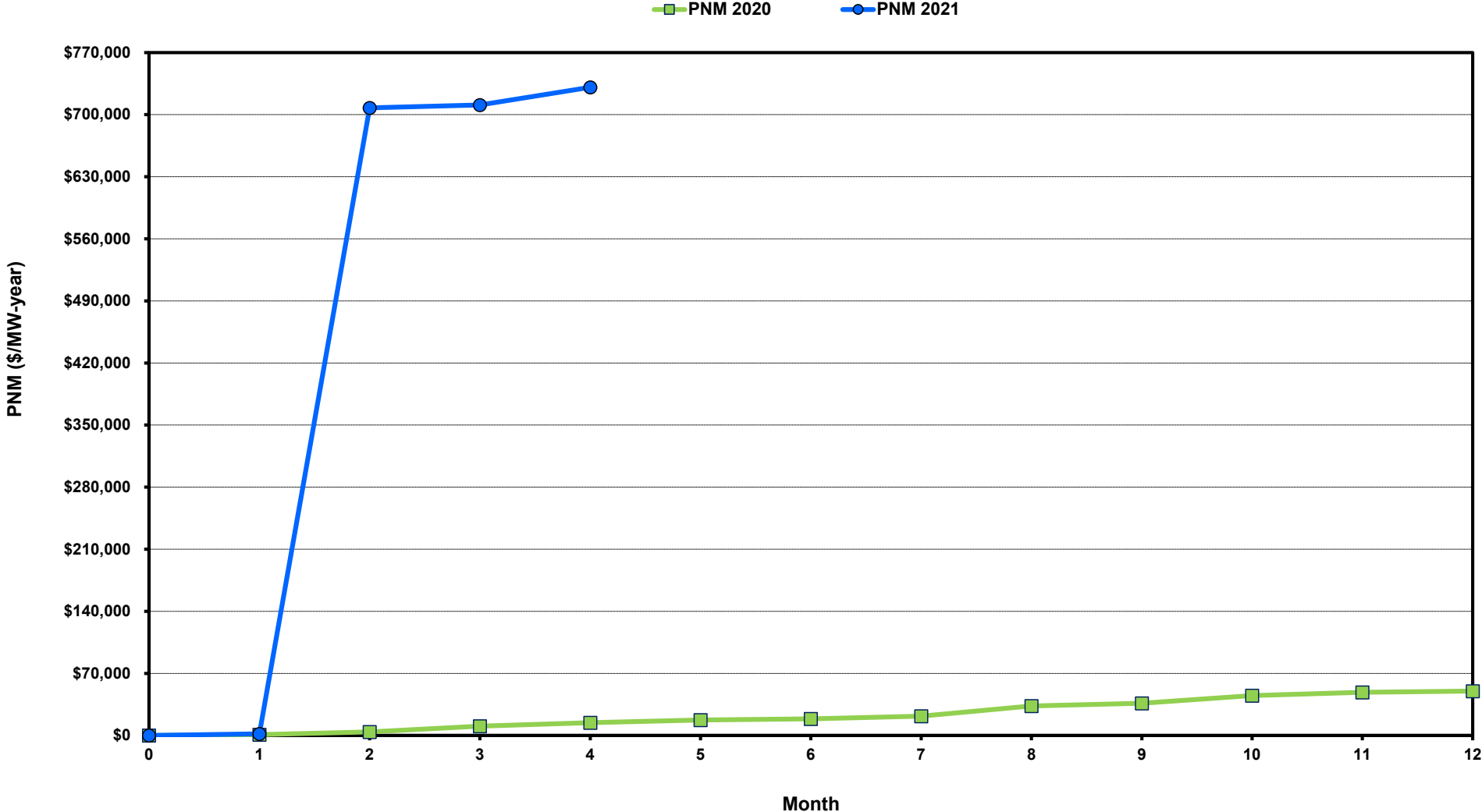
[Home <<](#)

[previous <<](#)

[next >>](#)

[data](#)

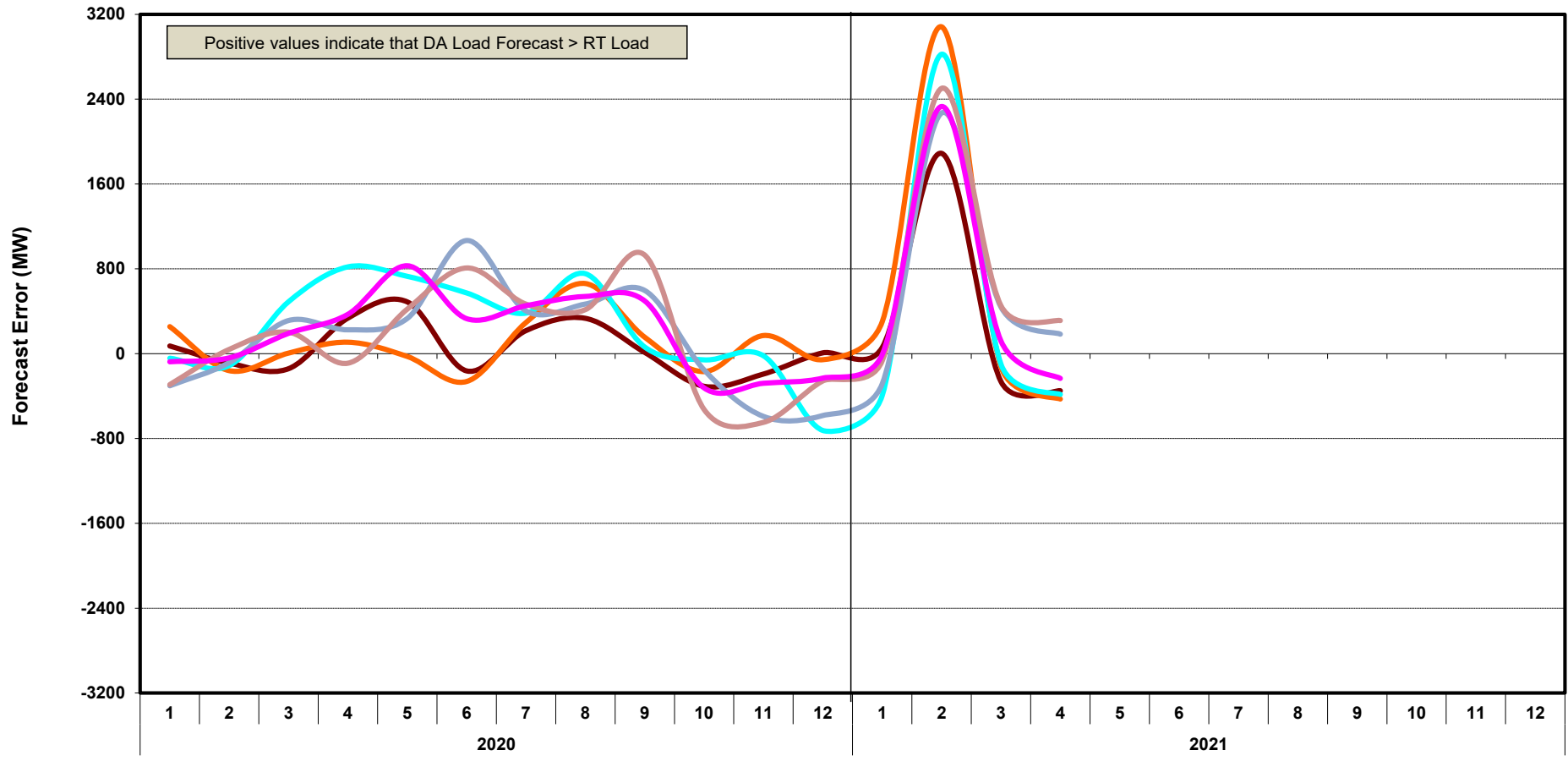
ERCOT-wide Cumulative Peaker Net Margin



[Home <<](#) [previous <<](#) [next >>](#)
[data](#)

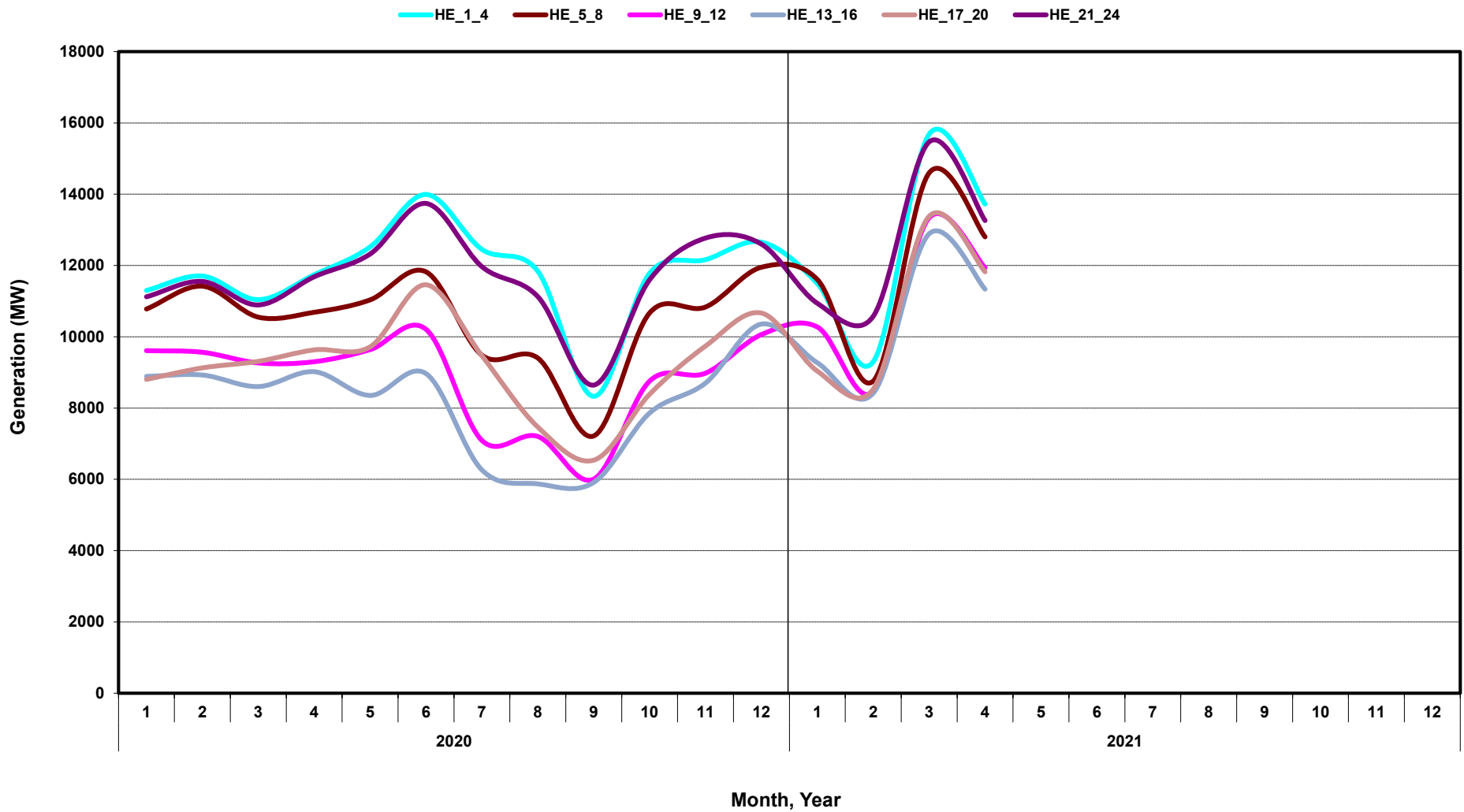
DA vs. RT Load Forecast Error by Hour Ending

HE_1_4 HE_5_8 HE_9_12 HE_13_16 HE_17_20 HE_21_24



[Home <<](#) [previous <<](#) [next >>](#)
[data](#)

Monthly Average of Wind Generation by Hour Ending



[Home <<](#)

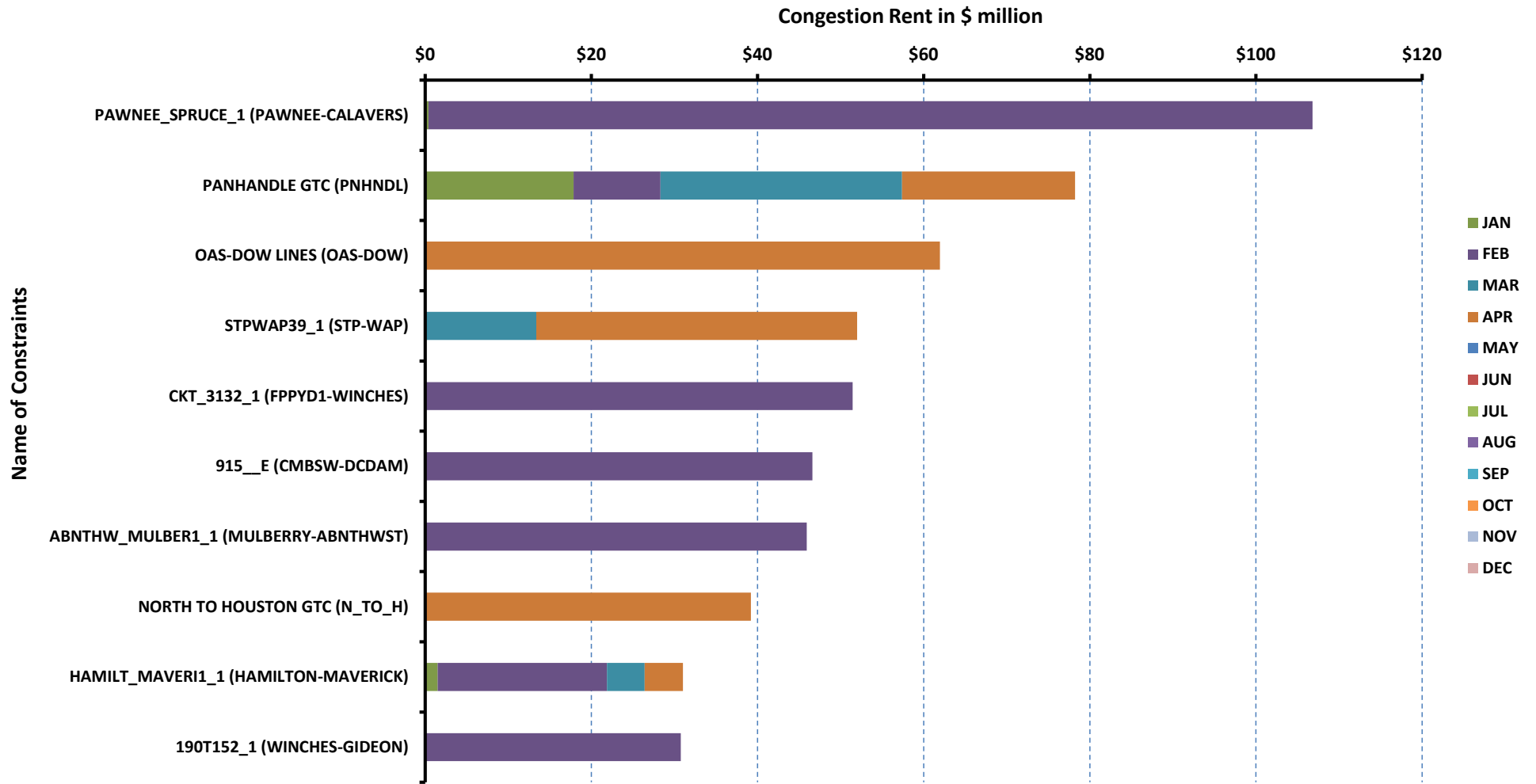
[previous <<](#)

[next >>](#)

[data](#)

RT Congestion Constraint Rankings - 1

Top 10 Constraints by Total Congestion Value - 2021



[Home <<](#)

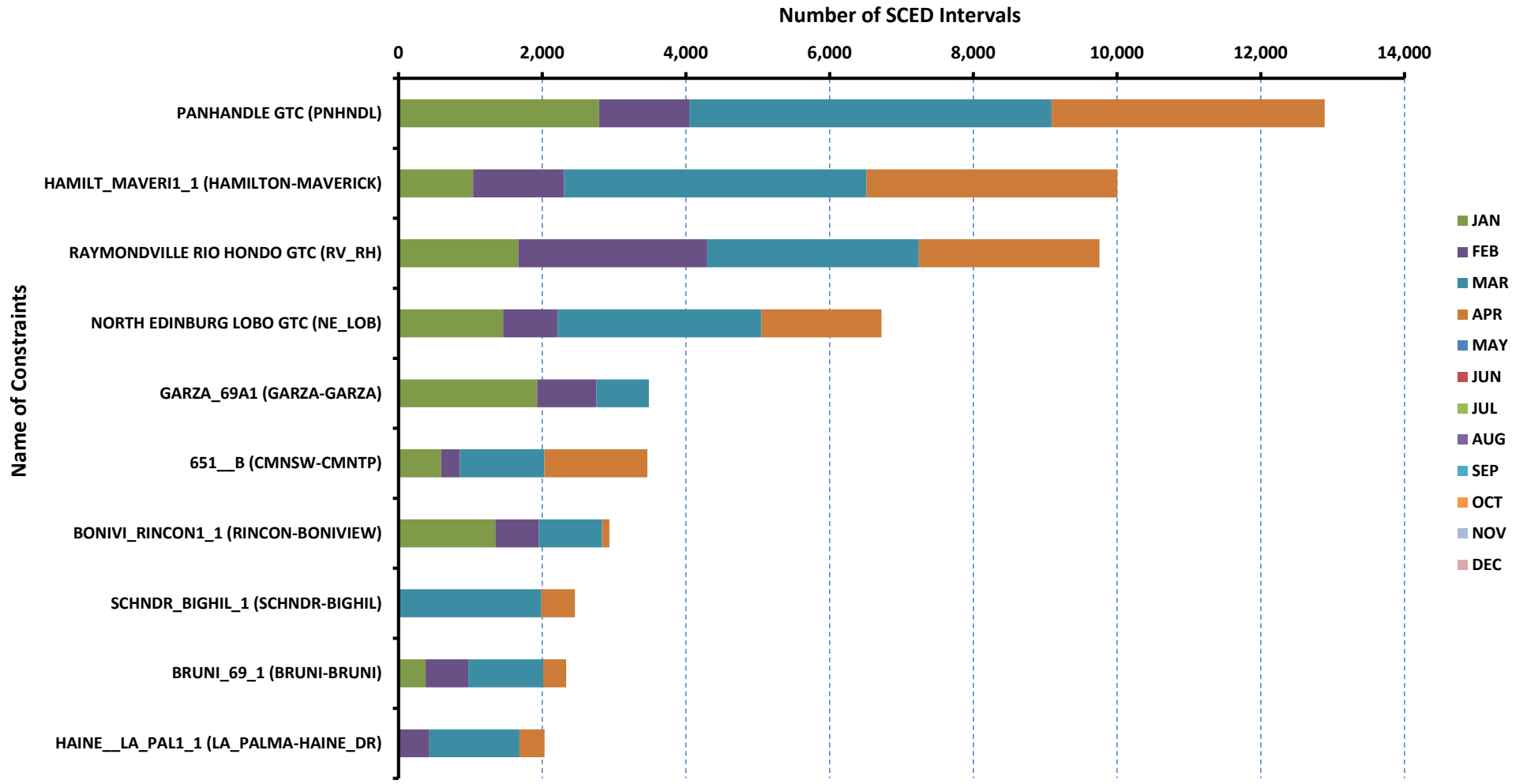
[previous <<](#)

[next >>](#)

[data](#)

RT Congestion Constraint Rankings - 2

Top 10 Constraints by Binding Frequency - 2021



[Home <<](#)

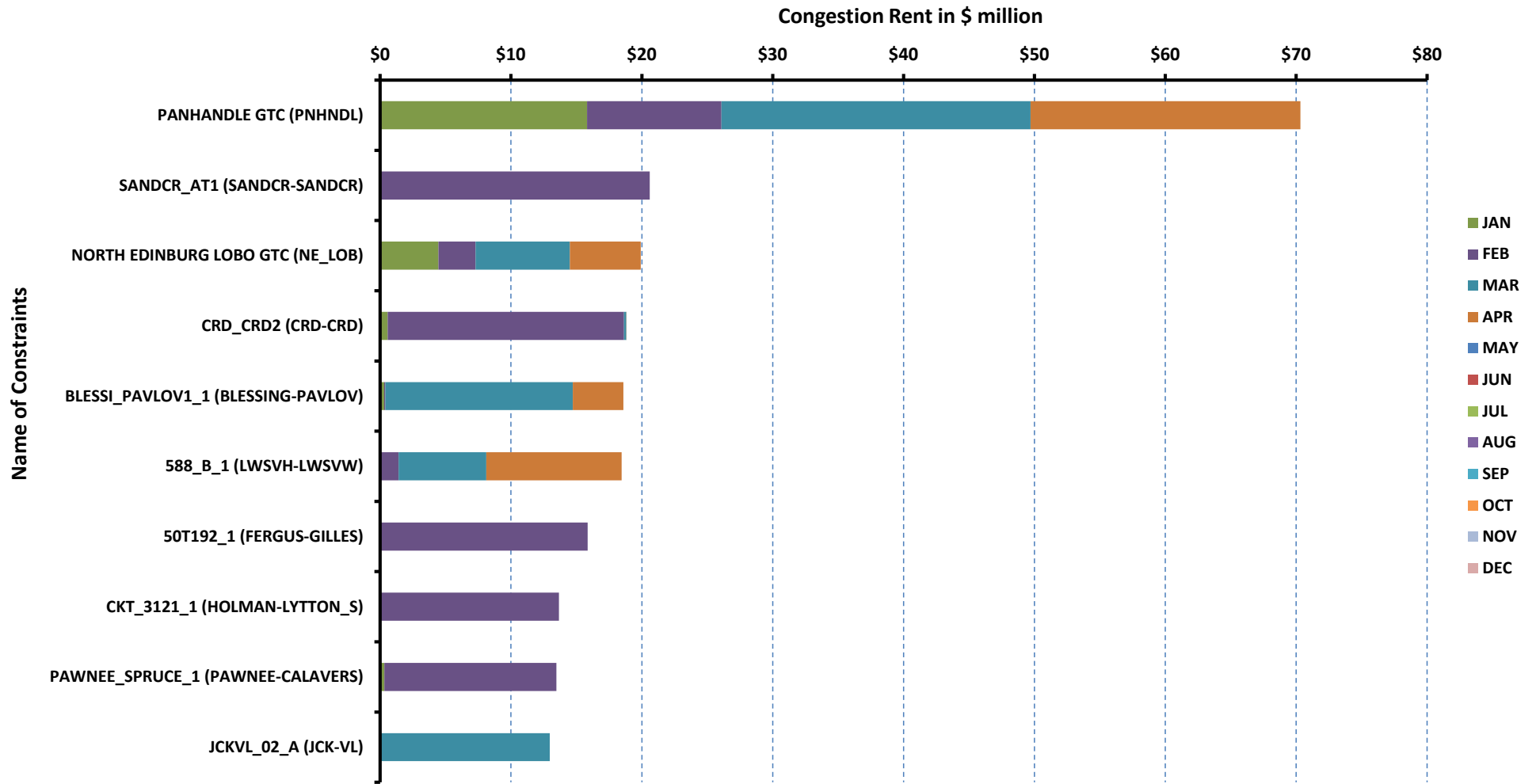
[previous <<](#)

[next >>](#)

[data](#)

DA Congestion Constraint Rankings - 1

Top 10 Constraints by Total Congestion Value - 2021



[Home <<](#)

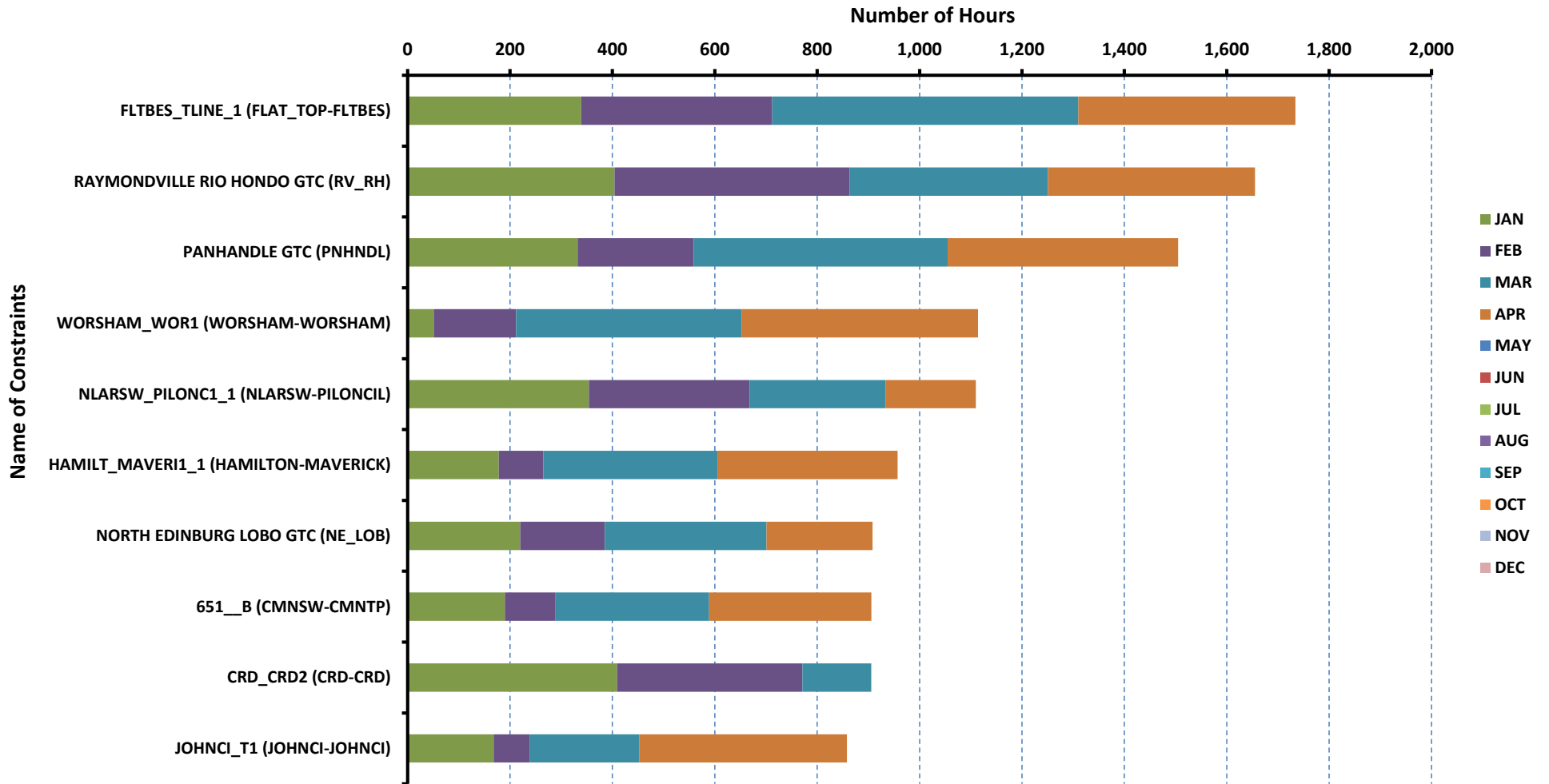
[previous <<](#)

[next >>](#)

[data](#)

DA Congestion Constraint Rankings - 2

Top 10 Constraints by Binding Frequency - 2021



[Home <<](#)

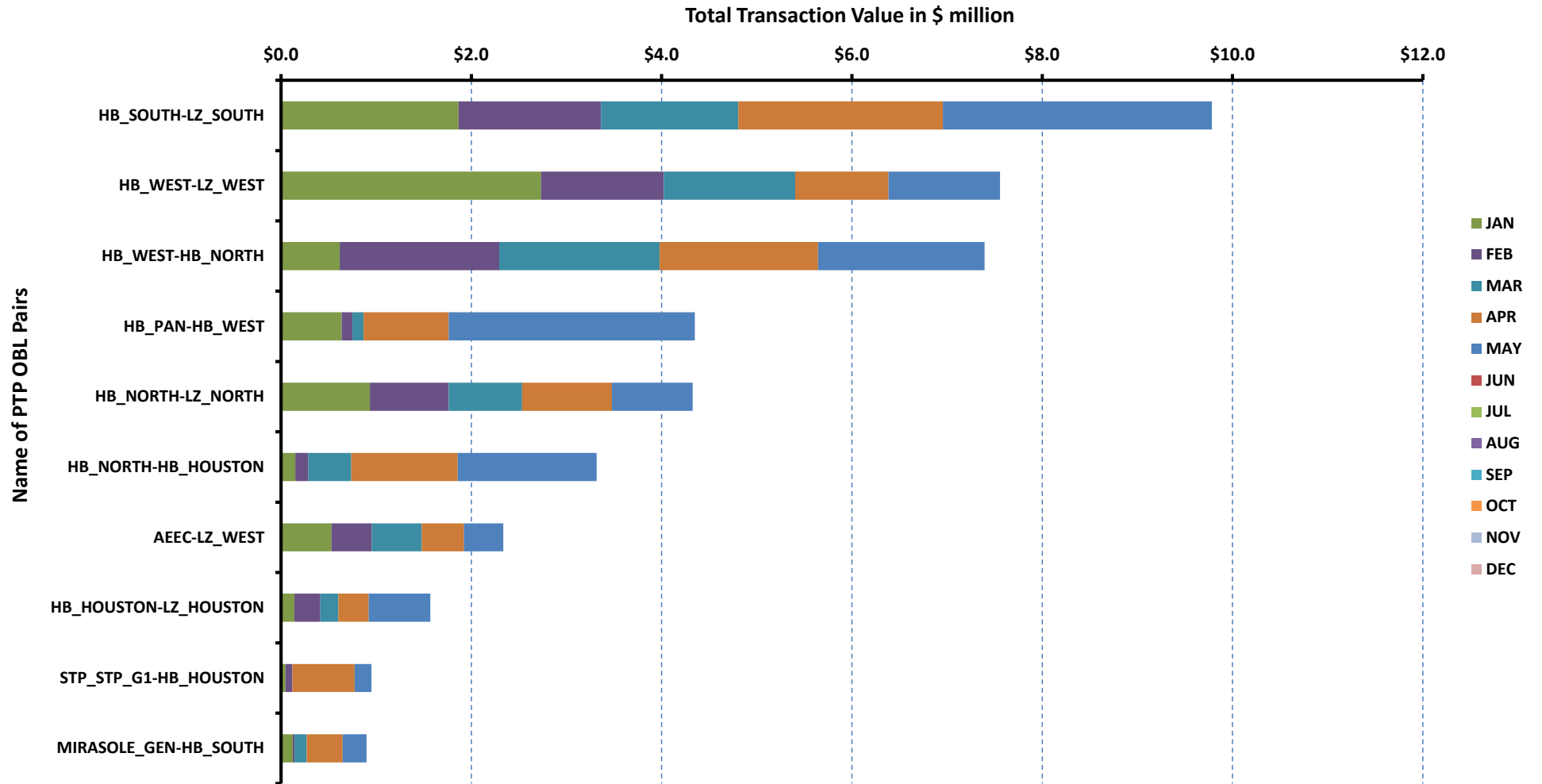
[previous <<](#)

[next >>](#)

[data](#)

Top 10 CRR Pairs Ranked by Monthly Auction Values - 1

Top 10 PTP Obligations by Total Transaction Value - 2021



[Home <<](#)

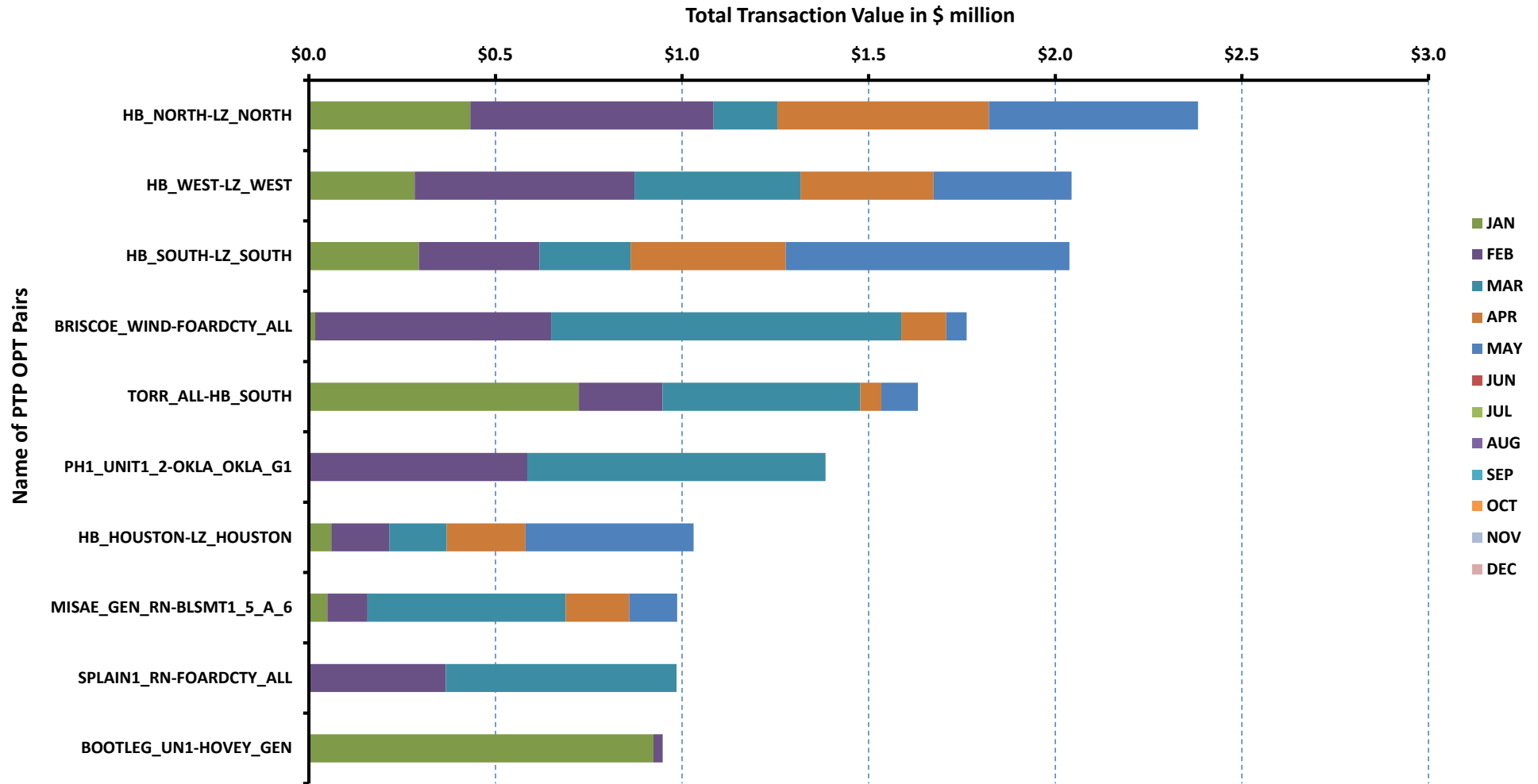
[previous <<](#)

[next >>](#)

[data](#)

Top 10 CRR Pairs Ranked by Monthly Auction Values - 2

Top 10 PTP Options by Total Transaction Value - 2021



[Home <<](#)

[previous <<](#)

[next >>](#)

[data](#)

ERCOT-wide Avg. Energy Price - DA vs. RT			
year	month	dam_spp	rtm_spp
2020	1	\$ 18.46	\$ 17.97
	2	\$ 23.69	\$ 26.12
	3	\$ 30.87	\$ 31.87
	4	\$ 22.89	\$ 21.06
	5	\$ 20.92	\$ 20.72
	6	\$ 21.18	\$ 16.13
	7	\$ 25.72	\$ 21.79
	8	\$ 50.64	\$ 43.72
	9	\$ 20.93	\$ 23.32
	10	\$ 27.12	\$ 34.39
	11	\$ 26.47	\$ 26.86
	12	\$ 22.37	\$ 21.38
2021	1	\$ 22.60	\$ 21.96
	2	\$ 1,723.84	\$ 1,784.28
	3	\$ 22.45	\$ 22.29
	4	\$ 33.56	\$ 56.64
	5	\$ -	\$ -
	6	\$ -	\$ -
	7	\$ -	\$ -
	8	\$ -	\$ -
	9	\$ -	\$ -
	10	\$ -	\$ -
	11	\$ -	\$ -
	12	\$ -	\$ -

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

Load Zone Load Statistics										
year	month	loadPEAK_Houston	loadPEAK_North	loadPEAK_South	loadPEAK_West	loadAVG_Houston	loadAVG_North	loadAVG_South	loadAVG_West	
2020	1	12,102	19,145	13,311	5,996	9,945	14,023	9,781	5,288	
	2	12,763	22,127	15,953	6,150	10,077	14,586	10,236	5,351	
	3	15,886	17,173	14,820	5,684	10,786	12,298	9,908	4,982	
	4	15,909	19,521	16,210	5,750	10,385	12,167	10,063	4,840	
	5	17,827	23,337	18,047	5,895	11,875	13,891	11,624	4,655	
	6	18,953	25,649	19,077	6,485	13,351	17,610	13,092	5,293	
	7	19,545	28,378	20,240	6,826	14,207	19,609	14,644	5,736	
	8	19,732	28,793	20,448	6,809	14,569	19,780	14,786	5,765	
	9	19,778	23,832	19,355	6,516	13,144	15,129	12,102	5,164	
	10	17,911	22,168	17,330	6,027	11,965	13,695	11,390	4,976	
	11	15,058	18,778	13,503	5,489	10,755	12,403	9,898	4,857	
	12	13,343	21,505	15,278	5,977	10,605	14,512	10,420	5,195	
2021	1	14,310	21,786	16,810	5,919	10,668	14,873	10,630	5,257	
	2	14,403	29,499	21,146	6,279	9,970	16,979	11,656	4,692	
	3	13,207	17,017	13,347	5,598	9,881	12,513	9,489	4,888	
	4	15,502	17,516	16,235	5,851	11,090	12,395	10,495	5,015	
	5	-	-	-	-	-	-	-	-	-
	6	-	-	-	-	-	-	-	-	-
	7	-	-	-	-	-	-	-	-	-
	8	-	-	-	-	-	-	-	-	-
	9	-	-	-	-	-	-	-	-	-
	10	-	-	-	-	-	-	-	-	-
	11	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

Load Zone Monthly Average Energy Price - DA vs. RT									
year	month	avgRTMp_Houston	avgRTMp_North	avgRTMp_South	avgRTMp_West	avgDAMp_Houston	avgDAMp_North	avgDAMp_South	avgDAMp_West
2020	1	\$ 16.65	\$ 17.03	\$ 17.27	\$ 24.25	\$ 17.48	\$ 17.57	\$ 17.87	\$ 23.75
	2	\$ 18.94	\$ 18.97	\$ 19.71	\$ 71.42	\$ 18.21	\$ 18.85	\$ 20.04	\$ 54.21
	3	\$ 27.03	\$ 26.02	\$ 25.72	\$ 69.03	\$ 25.88	\$ 24.94	\$ 25.51	\$ 66.94
	4	\$ 21.29	\$ 20.43	\$ 22.73	\$ 18.66	\$ 22.63	\$ 22.34	\$ 23.83	\$ 22.87
	5	\$ 23.27	\$ 18.12	\$ 23.42	\$ 15.20	\$ 21.41	\$ 20.28	\$ 21.50	\$ 20.11
	6	\$ 16.54	\$ 16.38	\$ 15.76	\$ 15.14	\$ 21.42	\$ 21.57	\$ 21.07	\$ 19.50
	7	\$ 21.44	\$ 21.40	\$ 23.62	\$ 19.29	\$ 26.21	\$ 25.76	\$ 25.93	\$ 23.82
	8	\$ 39.86	\$ 41.02	\$ 54.24	\$ 35.79	\$ 46.46	\$ 48.10	\$ 61.57	\$ 41.90
	9	\$ 22.80	\$ 22.72	\$ 25.43	\$ 21.43	\$ 21.48	\$ 20.45	\$ 20.95	\$ 20.85
	10	\$ 34.02	\$ 35.34	\$ 35.30	\$ 30.58	\$ 26.86	\$ 25.90	\$ 29.79	\$ 24.97
	11	\$ 27.18	\$ 24.78	\$ 25.28	\$ 34.70	\$ 26.49	\$ 24.89	\$ 26.78	\$ 29.86
	12	\$ 20.62	\$ 21.08	\$ 21.24	\$ 24.04	\$ 21.50	\$ 21.74	\$ 22.33	\$ 25.99
2021	1	\$ 21.23	\$ 21.92	\$ 23.45	\$ 20.58	\$ 21.92	\$ 22.57	\$ 23.90	\$ 21.47
	2	\$ 1,433.48	\$ 2,010.57	\$ 2,012.30	\$ 1,144.30	\$ 1,408.66	\$ 1,930.75	\$ 1,944.51	\$ 1,096.49
	3	\$ 27.18	\$ 20.86	\$ 22.11	\$ 16.45	\$ 27.56	\$ 21.78	\$ 20.16	\$ 18.27
	4	\$ 76.11	\$ 50.62	\$ 51.15	\$ 39.97	\$ 36.88	\$ 32.02	\$ 34.81	\$ 27.45
	5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	11	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	12	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

ERCOT-wide Monthly Implied Heat Rate - DA vs. RT						
year	month	gasprice	rtn_spp	HR_rtn	dam_spp	HR_dam
2020	1	\$ 1.92	\$ 17.97	9.34	\$ 18.46	9.59
	2	\$ 1.83	\$ 26.12	14.25	\$ 23.69	12.92
	3	\$ 1.68	\$ 31.87	18.98	\$ 30.87	18.38
	4	\$ 1.65	\$ 21.06	12.73	\$ 22.89	13.84
	5	\$ 1.70	\$ 20.72	12.19	\$ 20.92	12.31
	6	\$ 1.57	\$ 16.13	10.30	\$ 21.18	13.52
	7	\$ 1.70	\$ 21.79	12.78	\$ 25.72	15.09
	8	\$ 2.23	\$ 43.72	19.60	\$ 50.64	22.70
	9	\$ 2.01	\$ 23.32	11.58	\$ 20.93	10.39
	10	\$ 2.44	\$ 34.39	14.12	\$ 27.12	11.13
	11	\$ 2.58	\$ 26.86	10.40	\$ 26.47	10.25
	12	\$ 2.55	\$ 21.38	8.38	\$ 22.37	8.77
2021	1	\$ 2.57	\$ 21.96	8.53	\$ 22.60	8.78
	2	\$ 51.48	\$ 1,784.28	34.66	\$ 1,723.84	33.49
	3	\$ 2.44	\$ 22.29	9.12	\$ 22.45	9.19
	4	\$ 2.61	\$ 56.64	21.71	\$ 33.56	12.87
	5	\$ -	\$ -	-	\$ -	-
	6	\$ -	\$ -	-	\$ -	-
	7	\$ -	\$ -	-	\$ -	-
	8	\$ -	\$ -	-	\$ -	-
	9	\$ -	\$ -	-	\$ -	-
	10	\$ -	\$ -	-	\$ -	-
	11	\$ -	\$ -	-	\$ -	-
	12	\$ -	\$ -	-	\$ -	-

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

Load Zone Monthly Implied Heat Rate - DA vs. RT									
year	month	HRdam_Houston	HRdam_South	HRdam_North	HRdam_West	HRrtm_Houston	HRrtm_South	HRrtm_North	HRrtm_West
2020	1	9.08	9.29	9.13	12.34	8.65	8.98	8.85	12.60
	2	9.93	10.93	10.28	29.56	10.33	10.75	10.35	38.95
	3	15.41	15.19	14.85	39.87	16.10	15.32	15.49	41.11
	4	13.68	14.40	13.50	13.83	12.87	13.74	12.35	11.28
	5	12.59	12.65	11.93	11.83	13.69	13.78	10.66	8.94
	6	13.68	13.45	13.78	12.45	10.56	10.06	10.46	9.67
	7	15.38	15.21	15.11	13.98	12.58	13.86	12.56	11.32
	8	20.82	27.60	21.56	18.78	17.86	24.31	18.39	16.04
	9	10.66	10.40	10.16	10.35	11.32	12.62	11.28	10.64
	10	11.03	12.23	10.63	10.25	13.97	14.49	14.51	12.55
	11	10.25	10.37	9.63	11.56	10.52	9.79	9.59	13.44
	12	8.43	8.75	8.52	10.19	8.08	8.32	8.26	9.42
2021	1	8.52	9.29	8.77	8.34	8.25	9.11	8.52	8.00
	2	27.36	37.77	37.51	21.30	27.85	39.09	39.06	22.23
	3	11.28	8.25	8.92	7.48	11.12	9.05	8.54	6.73
	4	14.14	13.34	12.27	10.52	29.17	19.61	19.40	15.32
	5	-	-	-	-	-	-	-	-
	6	-	-	-	-	-	-	-	-
	7	-	-	-	-	-	-	-	-
	8	-	-	-	-	-	-	-	-
	9	-	-	-	-	-	-	-	-
	10	-	-	-	-	-	-	-	-
	11	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

Daily ORDC Adders Average Values and Interval Duration								
YEAR	MONTH	DAY	PRICE_RS	PRICE_RDP	RS_CNT	RDP_CNT	RS_POS	RDP_POS
2021	4	1	\$ -	\$ -	0	0	80	90
2021	4	2	\$ -	\$ -	0	0	80	90
2021	4	3	\$ 0.27	\$ -	7	0	80	90
2021	4	4	\$ 0.68	\$ -	27	0	80	90
2021	4	5	\$ -	\$ -	0	0	80	90
2021	4	6	\$ -	\$ -	0	0	80	90
2021	4	7	\$ 27.53	\$ -	12	0	80	90
2021	4	8	\$ 1.34	\$ -	20	0	80	90
2021	4	9	\$ -	\$ -	0	0	80	90
2021	4	10	\$ 3.71	\$ -	11	0	80	90
2021	4	11	\$ 20.36	\$ -	15	0	80	90
2021	4	12	\$ 5.83	\$ -	17	0	80	90
2021	4	13	\$ 78.35	\$ -	43	0	80	90
2021	4	14	\$ 2.29	\$ -	34	0	80	90
2021	4	15	\$ 0.04	\$ -	13	0	80	90
2021	4	16	\$ 0.44	\$ -	38	0	80	90
2021	4	17	\$ 0.68	\$ -	12	0	80	90
2021	4	18	\$ 1.27	\$ -	9	0	80	90
2021	4	19	\$ 0.01	\$ -	4	0	80	90
2021	4	20	\$ 0.02	\$ -	2	0	80	90
2021	4	21	\$ 0.02	\$ -	8	0	80	90
2021	4	22	\$ 0.04	\$ -	5	0	80	90
2021	4	23	\$ -	\$ -	0	0	80	90
2021	4	24	\$ -	\$ -	0	0	80	90
2021	4	25	\$ -	\$ -	0	0	80	90
2021	4	26	\$ -	\$ 0.60	0	30	80	90
2021	4	27	\$ -	\$ -	0	0	80	90
2021	4	28	\$ -	\$ -	0	0	80	90
2021	4	29	\$ 0.04	\$ -	5	0	80	90
2021	4	30	\$ -	\$ -	0	0	80	90
0	0	0	\$ -	\$ -	0	0	0	0

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

Monthly Average of Ancillary Services Required MW					
year	month	ASMW_REGDN	ASMW_NSPIN	ASMW_RRS	ASMW_REGUP
2020	1	271	1,565	2,893	293
	2	276	1,633	2,911	295
	3	293	1,462	2,969	298
	4	282	1,444	2,976	310
	5	314	1,492	2,667	339
	6	302	1,444	2,460	324
	7	294	1,321	2,373	304
	8	301	1,414	2,354	311
	9	304	1,387	2,470	307
	10	277	1,460	2,799	300
	11	259	1,463	2,939	284
	12	266	1,535	2,881	272
2021	1	317	1,535	2,964	345
	2	360	1,604	3,024	374
	3	373	1,500	3,023	374
	4	362	1,531	3,059	391
	5	-	-	-	-
	6	-	-	-	-
	7	-	-	-	-
	8	-	-	-	-
	9	-	-	-	-
	10	-	-	-	-
	11	-	-	-	-
	12	-	-	-	-

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

Hourly Average of Ancillary Services Required MW					
year	DELIVERY_HOUR	ASMW_REGDN	ASMW_NSPIN	ASMW_RRS	ASMW_REGUP
2020	1	360	1,175	2,825	217
	2	272	1,175	2,825	189
	3	232	1,370	2,831	199
	4	187	1,369	2,832	226
	5	187	1,369	2,832	293
	6	266	1,369	2,832	452
	7	230	1,838	2,733	578
	8	233	1,838	2,733	360
	9	248	1,838	2,733	363
	10	265	1,838	2,733	386
	11	271	1,608	2,654	397
	12	239	1,608	2,654	396
	13	218	1,608	2,654	367
	14	241	1,608	2,654	321
	15	222	1,392	2,634	288
	16	204	1,392	2,634	279
	17	235	1,392	2,634	288
	18	285	1,392	2,634	312
	19	366	1,423	2,663	277
	20	360	1,423	2,663	249
	21	371	1,423	2,663	212
	22	454	1,423	2,663	197
	23	488	1,175	2,825	211
	24	445	1,175	2,825	219
2021	1	315	1,172	3,120	210
	2	255	1,172	3,120	225
	3	239	1,277	3,121	257
	4	204	1,277	3,122	272
	5	216	1,277	3,122	333
	6	309	1,277	3,122	496
	7	268	1,877	2,994	652
	8	342	1,877	2,994	373
	9	455	1,877	2,994	313
	10	501	1,877	2,994	389
	11	461	1,619	2,949	407
	12	423	1,619	2,949	426
	13	403	1,619	2,949	428
	14	395	1,619	2,949	402
	15	389	1,490	2,939	409
	16	340	1,490	2,939	455
	17	337	1,490	2,939	506
	18	329	1,490	2,939	587
	19	369	1,811	2,980	502
	20	323	1,811	2,980	331
	21	364	1,811	2,980	253
	22	417	1,811	2,980	232
	23	426	1,172	3,120	224
	24	381	1,172	3,120	214

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

Monthly Average Ancillary Services Price					
year	month	MCPC_REGDN	MCPC_NSPIN	MCPC_RRS	MCPC_REGUP
2020	1	\$ 7.06	\$ 2.04	\$ 7.24	\$ 8.60
	2	\$ 6.46	\$ 3.78	\$ 10.06	\$ 10.33
	3	\$ 6.39	\$ 4.59	\$ 14.60	\$ 13.00
	4	\$ 10.83	\$ 5.15	\$ 12.78	\$ 12.31
	5	\$ 11.54	\$ 3.36	\$ 8.37	\$ 9.04
	6	\$ 7.57	\$ 4.69	\$ 7.70	\$ 7.89
	7	\$ 6.73	\$ 4.12	\$ 9.56	\$ 9.98
	8	\$ 7.32	\$ 11.02	\$ 23.91	\$ 22.42
	9	\$ 10.12	\$ 2.55	\$ 6.66	\$ 6.91
	10	\$ 10.22	\$ 5.47	\$ 9.81	\$ 10.82
	11	\$ 7.10	\$ 3.84	\$ 15.21	\$ 15.10
	12	\$ 9.71	\$ 3.16	\$ 11.03	\$ 9.49
2021	1	\$ 9.98	\$ 2.16	\$ 11.85	\$ 14.31
	2	\$ 1,272.06	\$ 1,676.26	\$ 3,808.44	\$ 3,218.92
	3	\$ 28.66	\$ 3.93	\$ 30.23	\$ 23.61
	4	\$ 24.82	\$ 12.43	\$ 29.20	\$ 31.78
	5	\$ -	\$ -	\$ -	\$ -
	6	\$ -	\$ -	\$ -	\$ -
	7	\$ -	\$ -	\$ -	\$ -
	8	\$ -	\$ -	\$ -	\$ -
	9	\$ -	\$ -	\$ -	\$ -
	10	\$ -	\$ -	\$ -	\$ -
	11	\$ -	\$ -	\$ -	\$ -
	12	\$ -	\$ -	\$ -	\$ -

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

Monthly Average A/S Cost per MWh Load					
year	month	AScost_REGDN	AScost_NSPIIN	AScost_RRS	AScost_REGUP
2020	1	\$ 0.05	\$ 0.08	\$ 0.54	\$ 0.06
	2	\$ 0.04	\$ 0.15	\$ 0.73	\$ 0.08
	3	\$ 0.05	\$ 0.18	\$ 1.14	\$ 0.10
	4	\$ 0.08	\$ 0.20	\$ 1.02	\$ 0.10
	5	\$ 0.09	\$ 0.12	\$ 0.53	\$ 0.07
	6	\$ 0.05	\$ 0.14	\$ 0.38	\$ 0.05
	7	\$ 0.04	\$ 0.10	\$ 0.42	\$ 0.06
	8	\$ 0.04	\$ 0.28	\$ 1.03	\$ 0.13
	9	\$ 0.07	\$ 0.08	\$ 0.36	\$ 0.05
	10	\$ 0.07	\$ 0.19	\$ 0.65	\$ 0.08
	11	\$ 0.05	\$ 0.15	\$ 1.18	\$ 0.11
	12	\$ 0.06	\$ 0.12	\$ 0.78	\$ 0.06
2021	1	\$ 0.08	\$ 0.08	\$ 0.85	\$ 0.12
	2	\$ 10.56	\$ 62.11	\$ 265.95	\$ 27.81
	3	\$ 0.29	\$ 0.16	\$ 2.49	\$ 0.24
	4	\$ 0.23	\$ 0.49	\$ 2.29	\$ 0.32
	5	\$ -	\$ -	\$ -	\$ -
	6	\$ -	\$ -	\$ -	\$ -
	7	\$ -	\$ -	\$ -	\$ -
	8	\$ -	\$ -	\$ -	\$ -
	9	\$ -	\$ -	\$ -	\$ -
	10	\$ -	\$ -	\$ -	\$ -
	11	\$ -	\$ -	\$ -	\$ -
	12	\$ -	\$ -	\$ -	\$ -

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

ERCOT-wide Cumulative PNM			
year	month	pnm	pnm_accum
2020	0	\$ -	\$ -
	1	\$ 948.71	\$ 948.71
	2	\$ 2,962.95	\$ 3,911.66
	3	\$ 6,596.00	\$ 10,507.66
	4	\$ 3,928.31	\$ 14,435.97
	5	\$ 2,971.45	\$ 17,407.42
	6	\$ 1,257.14	\$ 18,664.56
	7	\$ 3,082.86	\$ 21,747.42
	8	\$ 11,591.85	\$ 33,339.27
	9	\$ 3,063.07	\$ 36,402.34
	10	\$ 8,681.74	\$ 45,084.08
	11	\$ 3,520.43	\$ 48,604.51
	12	\$ 1,469.68	\$ 50,074.19
2021	0	\$ -	\$ -
	1	\$ 1,930.83	\$ 1,930.83
	2	\$ 705,718.36	\$ 707,649.19
	3	\$ 3,356.50	\$ 711,005.69
	4	\$ 19,870.21	\$ 730,875.90
	5	\$ -	\$ -
	6	\$ -	\$ -
	7	\$ -	\$ -
	8	\$ -	\$ -
	9	\$ -	\$ -
	10	\$ -	\$ -
	11	\$ -	\$ -
	12	\$ -	\$ -

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

DA vs. RT Load Forecast Error by Hour Ending							
year	month	HE_1_4	HE_13_16	HE_17_20	HE_21_24	HE_5_8	HE_9_12
2020	1	73	(303)	(292)	(76)	255	(43)
	2	(89)	(84)	40	(39)	(160)	(113)
	3	(142)	313	202	192	5	490
	4	335	225	(90)	371	108	819
	5	488	332	420	829	(26)	729
	6	(163)	1,067	808	330	(262)	573
	7	218	403	467	452	294	382
	8	333	468	415	540	662	754
	9	12	596	930	497	155	62
	10	(308)	(154)	(527)	(323)	(169)	(58)
	11	(192)	(592)	(648)	(279)	171	(20)
	12	8	(583)	(257)	(230)	(57)	(724)
2021	1	58	(284)	(66)	(9)	302	(394)
	2	1,889	2,270	2,503	2,331	3,083	2,824
	3	(263)	440	452	119	(125)	(99)
	4	(349)	184	312	(233)	(428)	(384)
	5	-	-	-	-	-	-
	6	-	-	-	-	-	-
	7	-	-	-	-	-	-
	8	-	-	-	-	-	-
	9	-	-	-	-	-	-
	10	-	-	-	-	-	-
	11	-	-	-	-	-	-
	12	-	-	-	-	-	-

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

Monthly Average of Wind Generation by Hour Ending							
year	month	HE_1_4	HE_13_16	HE_17_20	HE_21_24	HE_5_8	HE_9_12
2020	1	11,301	8,889	8,804	11,122	10,778	9,611
	2	11,703	8,927	9,127	11,552	11,418	9,565
	3	11,041	8,603	9,310	10,892	10,550	9,266
	4	11,740	9,020	9,632	11,683	10,687	9,300
	5	12,521	8,354	9,718	12,321	11,035	9,639
	6	13,993	8,966	11,459	13,741	11,821	10,210
	7	12,451	6,263	9,467	11,967	9,483	7,091
	8	11,838	5,872	7,466	11,126	9,403	7,204
	9	8,330	5,914	6,538	8,644	7,217	6,007
	10	11,781	7,862	8,387	11,600	10,670	8,756
	11	12,163	8,702	9,740	12,769	10,835	8,979
	12	12,653	10,356	10,665	12,599	11,951	10,062
2021	1	11,491	9,270	9,037	10,939	11,606	10,274
	2	9,300	8,420	8,532	10,575	8,759	8,461
	3	15,685	12,889	13,380	15,467	14,598	13,338
	4	13,724	11,336	11,823	13,261	12,803	11,939
	5	-	-	-	-	-	-
	6	-	-	-	-	-	-
	7	-	-	-	-	-	-
	8	-	-	-	-	-	-
	9	-	-	-	-	-	-
	10	-	-	-	-	-	-
	11	-	-	-	-	-	-
	12	-	-	-	-	-	-

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart](#)

RT Congestion Constraint Rankings - Top 10 Constraints by Binding Frequency and Top 10 Constraints by Total Congestion Rent																
category	year	item	rankvar	rank	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
FREQ_EXIST	2021	PANHANDLE GTC (PNHNDL)	12,890	1	2,790	1,257	5,042	3,801	-	-	-	-	-	-	-	-
FREQ_EXIST	2021	HAMILT MAVERI1_1 (HAMILTON-MAVERICK)	10,005	2	1,038	1,269	4,205	3,493	-	-	-	-	-	-	-	-
FREQ_EXIST	2021	RAYMONDVILLE RIO HONDO GTC (RV_RH)	9,755	3	1,667	2,630	2,944	2,514	-	-	-	-	-	-	-	-
FREQ_EXIST	2021	NORTH EDINBURG LOBO GTC (NE_LOB)	6,721	4	1,455	758	2,837	1,671	-	-	-	-	-	-	-	-
FREQ_EXIST	2021	GARZA_69A1 (GARZA-GARZA)	3,484	5	1,928	825	731	-	-	-	-	-	-	-	-	-
FREQ_EXIST	2021	651_B (CMNSW-CMNTP)	3,462	6	594	260	1,176	1,432	-	-	-	-	-	-	-	-
FREQ_EXIST	2021	BONIVI_RINCON1_1 (RINCON-BONIVIEW)	2,935	7	1,347	607	880	101	-	-	-	-	-	-	-	-
FREQ_EXIST	2021	SCHNDR_BIGHIL_1 (SCHNDR-BIGHIL)	2,455	8	-	-	1,989	466	-	-	-	-	-	-	-	-
FREQ_EXIST	2021	BRUNI_69_1 (BRUNI-BRUNI)	2,334	9	378	592	1,044	320	-	-	-	-	-	-	-	-
FREQ_EXIST	2021	HAINA_LA_PAL1_1 (LA_PALMA-HAINE_DR)	2,031	10	-	428	1,255	348	-	-	-	-	-	-	-	-
TOP10_RENT	2021	PAWNEE_SPRUCE_1 (PAWNEE-CALAVERS)	\$ 106.80	1	\$ 0.39	\$ 106.40	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2021	PANHANDLE GTC (PNHNDL)	\$ 78.22	2	\$ 17.87	\$ 10.46	\$ 29.06	\$ 20.83	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2021	OAS-DOW LINES (OAS-DOW)	\$ 61.96	3	\$ -	\$ -	\$ -	\$ 61.96	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2021	STPWAP39_1 (STP-WAP)	\$ 51.99	4	\$ -	\$ -	\$ 13.37	\$ 38.62	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2021	CKT_3132_1 (FPPYD1-WINCHES)	\$ 51.44	5	\$ -	\$ 51.44	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2021	915_E (CMBSW-DCDAM)	\$ 46.61	6	\$ -	\$ 46.61	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2021	ABNTHW_MULBER1_1 (MULBERRY-ABNTHWST)	\$ 45.93	7	\$ -	\$ 45.93	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2021	NORTH TO HOUSTON GTC (N_TO_H)	\$ 39.20	8	\$ -	\$ -	\$ 0.04	\$ 39.17	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2021	HAMILT MAVERI1_1 (HAMILTON-MAVERICK)	\$ 31.01	9	\$ 1.51	\$ 20.38	\$ 4.52	\$ 4.60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2021	190T152_1 (WINCHES-GIDEON)	\$ 30.76	10	\$ 0.12	\$ 30.63	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart 1](#)

[chart 2](#)

DA Congestion Constraint Rankings - Top 10 Constraints by Binding Frequency and Top 10 Constraints by Total Congestion Rent																	
category	year	item	rankvar	rank	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
FREQ_EXIST	2021	FLTBES TLINE 1 (FLAT TOP-FLTBES)	1,734	1	339	373	598	424	-	-	-	-	-	-	-	-	
FREQ_EXIST	2021	RAYMONDVILLE RIO HONDO GTC (RV_RH)	1,855	2	404	459	388	404	-	-	-	-	-	-	-	-	
FREQ_EXIST	2021	PANHANDLE GTC (PNHNDL)	1,505	3	332	227	496	450	-	-	-	-	-	-	-	-	
FREQ_EXIST	2021	WORSHAM WOR1 (WORSHAM-WORSHAM)	1,114	4	51	161	440	462	-	-	-	-	-	-	-	-	
FREQ_EXIST	2021	NLARSW PILONC1 1 (NLARSW-PILONCIL)	1,110	5	354	314	266	176	-	-	-	-	-	-	-	-	
FREQ_EXIST	2021	HAMILT MAVERI1 1 (HAMILTON-MAVERICK)	957	6	178	87	340	352	-	-	-	-	-	-	-	-	
FREQ_EXIST	2021	NORTH EDINBURG LOBO GTC (NE_LOB)	908	7	220	165	316	207	-	-	-	-	-	-	-	-	
FREQ_EXIST	2021	651_B (CMNSW-CMNTP)	906	8	190	99	300	317	-	-	-	-	-	-	-	-	
FREQ_EXIST	2021	CRD_CRD2 (CRD-CRD)	906	9	409	362	134	1	-	-	-	-	-	-	-	-	
FREQ_EXIST	2021	JOHNCI_T1 (JOHNCI-JOHNCI)	858	10	168	70	214	406	-	-	-	-	-	-	-	-	
TOP10_RENT	2021	PANHANDLE GTC (PNHNDL)	\$ 70.33	1	\$ 15.82	\$ 10.25	\$ 23.63	\$ 20.62	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOP10_RENT	2021	SANDCR_AT1 (SANDCR-SANDCR)	\$ 20.61	2	\$ -	\$ 20.61	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOP10_RENT	2021	NORTH EDINBURG LOBO GTC (NE_LOB)	\$ 19.92	3	\$ 4.45	\$ 2.84	\$ 7.21	\$ 5.42	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOP10_RENT	2021	CRD_CRD2 (CRD-CRD)	\$ 18.82	4	\$ 0.58	\$ 18.06	\$ 0.18	\$ 0.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOP10_RENT	2021	BLESSI_PAVLOV1 1 (BLESSING-PAVLOV)	\$ 18.58	5	\$ 0.31	\$ 0.09	\$ 14.32	\$ 3.86	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOP10_RENT	2021	588_B 1 (LWSVH-LWSVW)	\$ 18.45	6	\$ -	\$ 1.42	\$ 6.69	\$ 10.35	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOP10_RENT	2021	50T192 1 (FERGUS-GILLES)	\$ 15.86	7	\$ -	\$ 15.86	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOP10_RENT	2021	CKT 3121 1 (HOLMAN-LYTTON_S)	\$ 13.66	8	\$ -	\$ 13.66	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOP10_RENT	2021	PAWNEE_SPRUCE_1 (PAWNEE-CALAVERS)	\$ 13.47	9	\$ 0.32	\$ 13.14	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TOP10_RENT	2021	JCKVL_02_A (JCK-VL)	\$ 12.96	10	\$ -	\$ 0.01	\$ 12.95	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

[Home <<](#)

[previous <<](#)

[next >>](#)

[chart 1](#)

[chart 2](#)

Top 10 CRR Pairs Ranked by Monthly Auction Values - Top 10 PTP Obligations by Total Transaction Values and Top 10 PTP Options by Total Transaction Values																	
fr_option	year	pair	total_value	rank	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
N	2021	HB SOUTH-LZ SOUTH	\$ 9.78	1	\$ 1.87	\$ 1.50	\$ 1.44	\$ 2.15	\$ 2.83	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
N	2021	HB WEST-LZ WEST	\$ 7.56	2	\$ 2.73	\$ 1.29	\$ 1.38	\$ 0.98	\$ 1.17	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
N	2021	HB WEST-HB NORTH	\$ 7.39	3	\$ 0.62	\$ 1.68	\$ 1.69	\$ 1.67	\$ 1.75	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
N	2021	HB PAN-HB WEST	\$ 4.35	4	\$ 0.64	\$ 0.11	\$ 0.12	\$ 0.89	\$ 2.59	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
N	2021	HB NORTH-LZ NORTH	\$ 4.33	5	\$ 0.93	\$ 0.83	\$ 0.77	\$ 0.94	\$ 0.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
N	2021	HB NORTH-HB HOUSTON	\$ 3.32	6	\$ 0.15	\$ 0.14	\$ 0.45	\$ 1.12	\$ 1.46	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
N	2021	AEEC-LZ WEST	\$ 2.34	7	\$ 0.53	\$ 0.42	\$ 0.52	\$ 0.44	\$ 0.41	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
N	2021	HB HOUSTON-LZ HOUSTON	\$ 1.57	8	\$ 0.14	\$ 0.27	\$ 0.19	\$ 0.32	\$ 0.65	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
N	2021	STP STP G1-HB HOUSTON	\$ 0.95	9	\$ 0.05	\$ 0.07	\$ -	\$ 0.65	\$ 0.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
N	2021	MIRASOLE_GEN-HB SOUTH	\$ 0.90	10	\$ 0.12	\$ 0.02	\$ 0.13	\$ 0.38	\$ 0.25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Y	2021	HB NORTH-LZ NORTH	\$ 2.38	1	\$ 0.43	\$ 0.65	\$ 0.17	\$ 0.57	\$ 0.56	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Y	2021	HB WEST-LZ WEST	\$ 2.04	2	\$ 0.28	\$ 0.59	\$ 0.44	\$ 0.36	\$ 0.37	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Y	2021	HB SOUTH-LZ SOUTH	\$ 2.04	3	\$ 0.30	\$ 0.32	\$ 0.24	\$ 0.42	\$ 0.76	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Y	2021	BRISCOE WIND-FOARDCTY ALL	\$ 1.76	4	\$ 0.02	\$ 0.63	\$ 0.94	\$ 0.12	\$ 0.05	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Y	2021	TORR_ALL-HB SOUTH	\$ 1.63	5	\$ 0.72	\$ 0.22	\$ 0.53	\$ 0.06	\$ 0.10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Y	2021	PH1 UNIT1 2-OKLA OKLA G1	\$ 1.38	6	\$ 0.00	\$ 0.58	\$ 0.80	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Y	2021	HB HOUSTON-LZ HOUSTON	\$ 1.03	7	\$ 0.06	\$ 0.16	\$ 0.15	\$ 0.21	\$ 0.45	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Y	2021	MISAE_GEN_RN-BLSMT1_5_A_6	\$ 0.99	8	\$ 0.05	\$ 0.11	\$ 0.53	\$ 0.17	\$ 0.13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Y	2021	SPLAIN1_RN-FOARDCTY ALL	\$ 0.99	9	\$ -	\$ 0.37	\$ 0.62	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Y	2021	BOOTLEG_UN1-HOVEY_GEN	\$ 0.95	10	\$ 0.92	\$ 0.02	\$ 0.00	\$ 0.00	\$ 0.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

[Home <<](#)

[previous <<](#)

[chart 1](#)

[chart 2](#)