

To the Public Utility Commission of Texas

# ERCOT Wholesale Electricity Market Monthly Report

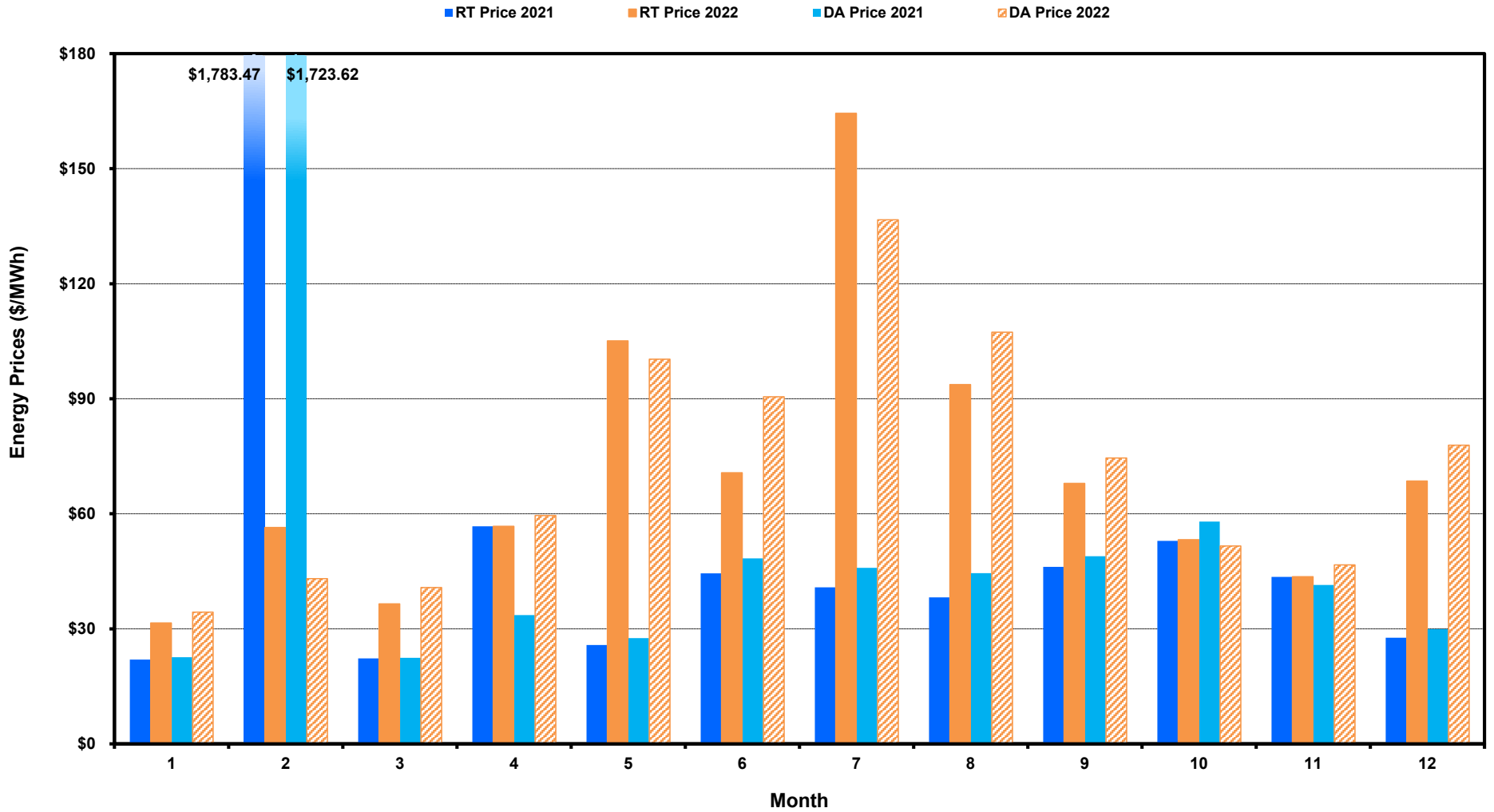
Tuesday, January 10, 2023

Potomac Economics, Ltd.  
Independent Market Monitor

<b>1</b>	<b>ERCOT-wide Average Energy Prices DA vs. RT</b>
<b>2</b>	<b>Load Zone Load Statistics</b>
<b>3</b>	<b>Load Zone Monthly Average Energy Prices DA vs RT</b>
<b>4</b>	<b>ERCOT-wide Monthly Implied Heat Rates DA vs RT</b>
<b>5</b>	<b>Load Zone Monthly Implied Heat Rates DA vs RT</b>
<b>6</b>	<b>Daily ORDC Reserve Adder Avg. Value and Duration</b>
<b>7</b>	<b>Monthly Ancillary Services Required MW</b>
<b>8</b>	<b>Hourly Average of Ancillary Services Required MW</b>
<b>9</b>	<b>Monthly Average Ancillary Services Price</b>
<b>10</b>	<b>Monthly Average A/S Cost per MWh Load</b>
<b>11</b>	<b>Ercot-wide Cumulative Peaker Net Margin</b>
<b>12</b>	<b>DA vs. RT Load Forecast Error by Hour Ending</b>
<b>13</b>	<b>Monthly Average of Wind Generation by Hour Ending</b>
<b>14</b>	<b>Monthly Average of Solar Generation by Hour Ending</b>
<b>15</b>	<b>RT Constraint Rankings</b>
	<b>- Top 10 Constraints by Total Congestion Value</b>
	<b>- Top 10 Constraints by Binding Frequency</b>
<b>16</b>	<b>DA Constraint Rankings</b>
	<b>- Top 10 Constraints by Total Congestion Value</b>
	<b>- Top 10 Constraints by Binding Frequency</b>
<b>17</b>	<b>CRR Pairs by Monthly Auction Value Rankings</b>
	<b>- Top 10 PTP Obligations by Total Transaction Value</b>
	<b>- Top 10 PTP Options by Total Transaction Value</b>

# ERCOT-wide Average Energy Prices DA vs RT

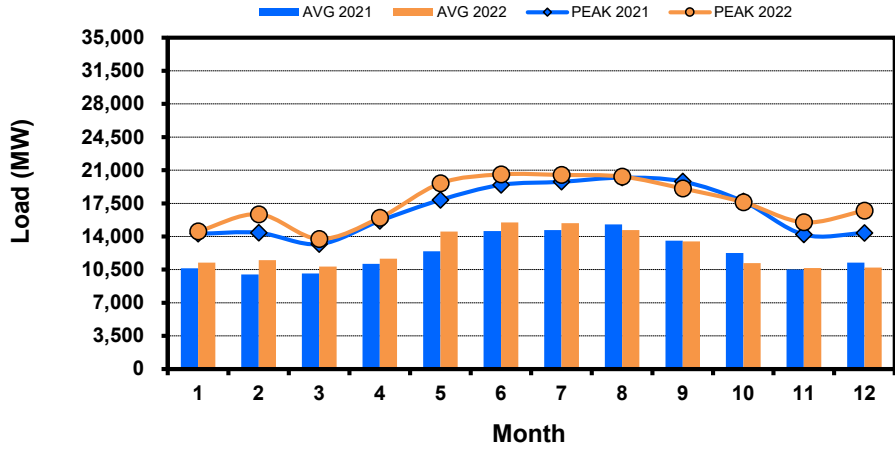
(avg. DA & RT SPPs weighted by Real Time Settlement Loads)



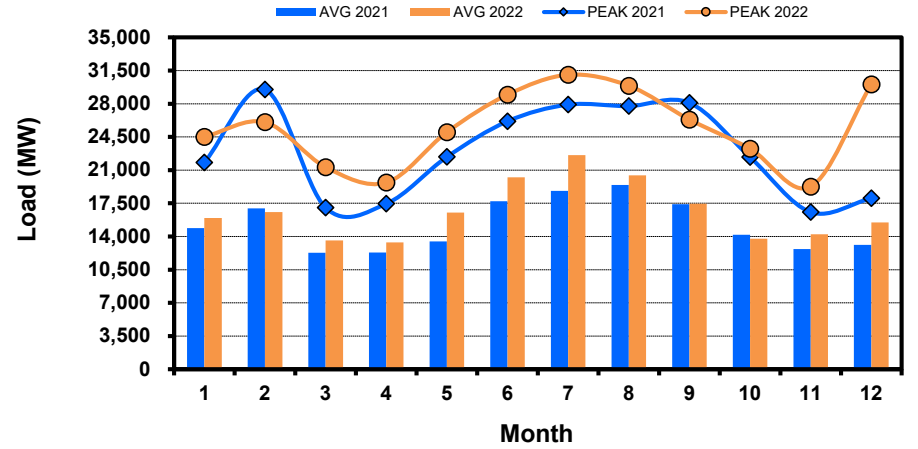
# Load Zone Load Statistics

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

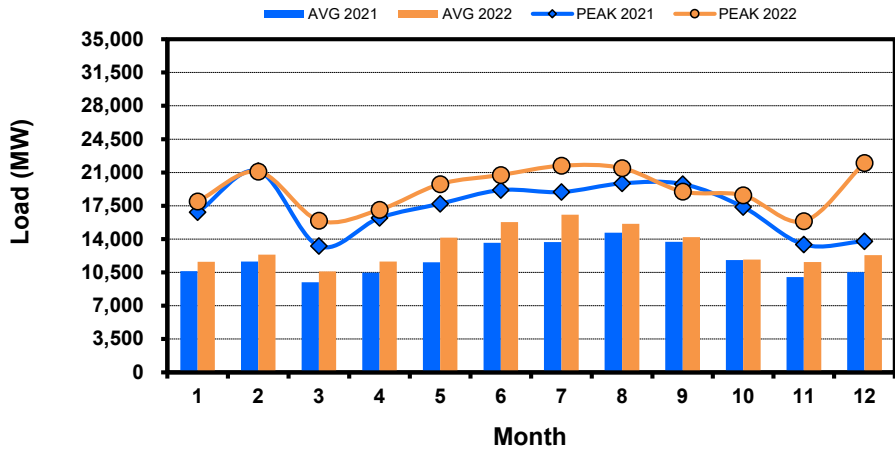
## Houston Zone



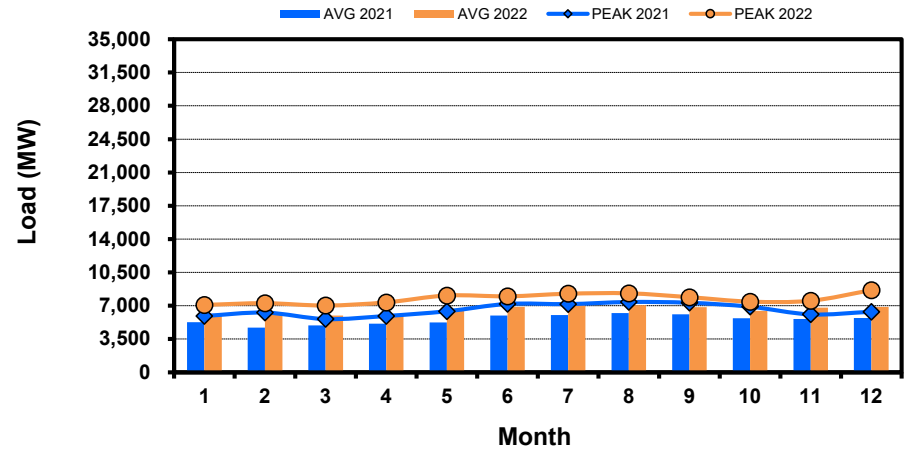
## North Zone



## South Zone



## West Zone

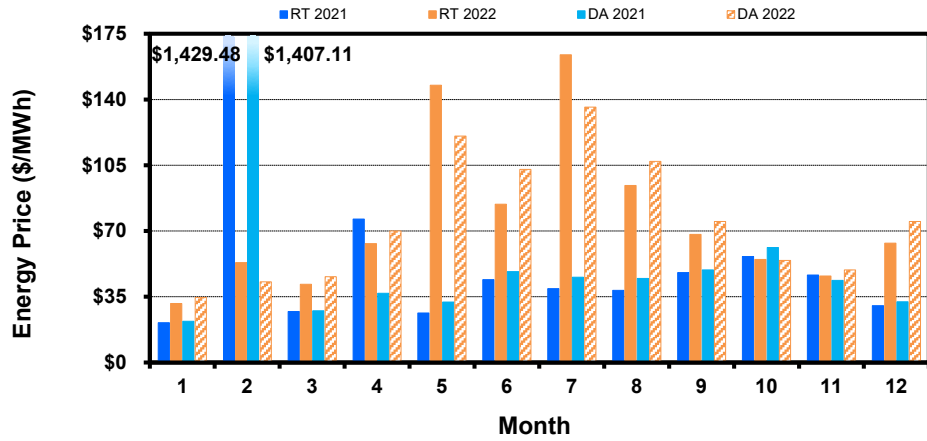


Note: \* Zonal load zone definition vs. Nodal comparable load zone definition: LZ\_Houston=LZ\_Houston; LZ\_West=LZ\_West; LZ\_North=(LZ\_North,LZ\_RAYBN); LZ\_South=(LZ\_South,LZ\_CPS,LZ\_AEN,LZ\_LCRA)

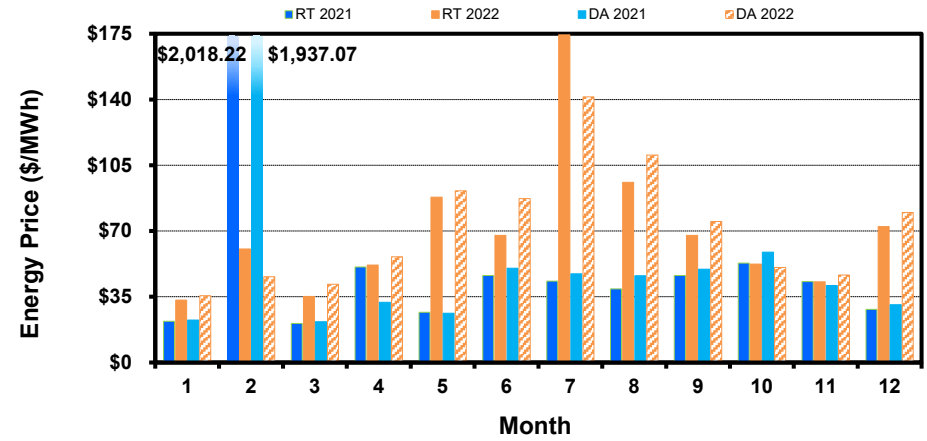
# Load Zone Monthly Average Energy Price DA vs RT

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

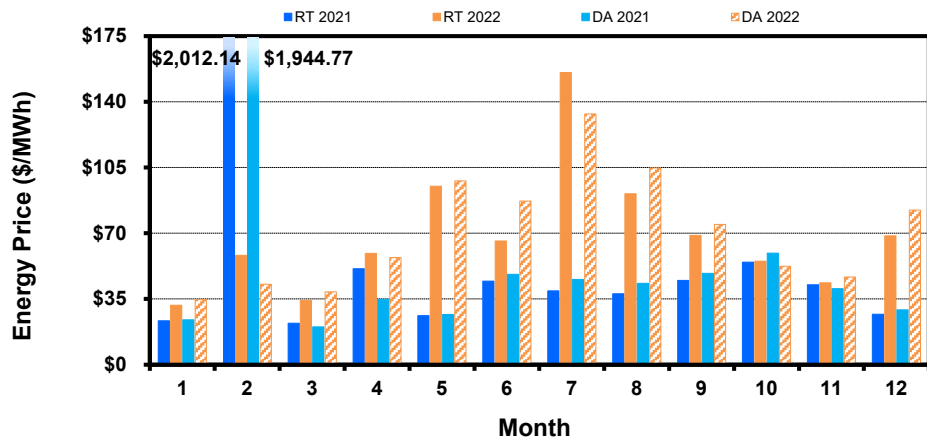
### Houston Zone



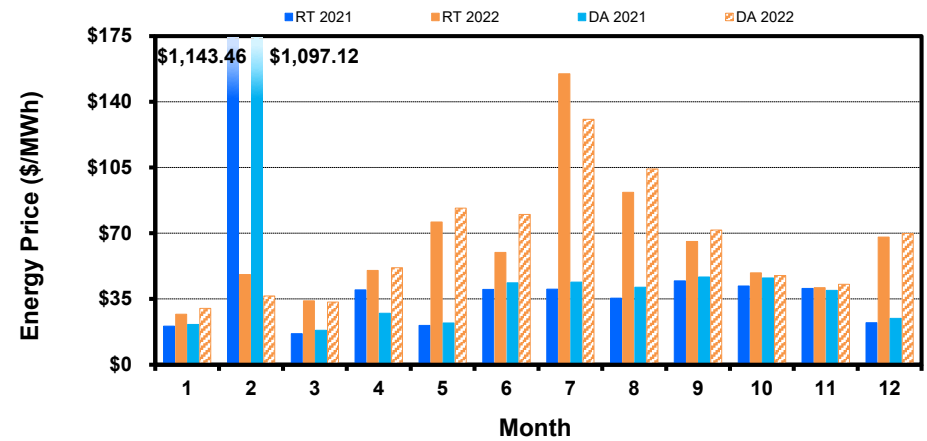
### North Zone



### South Zone



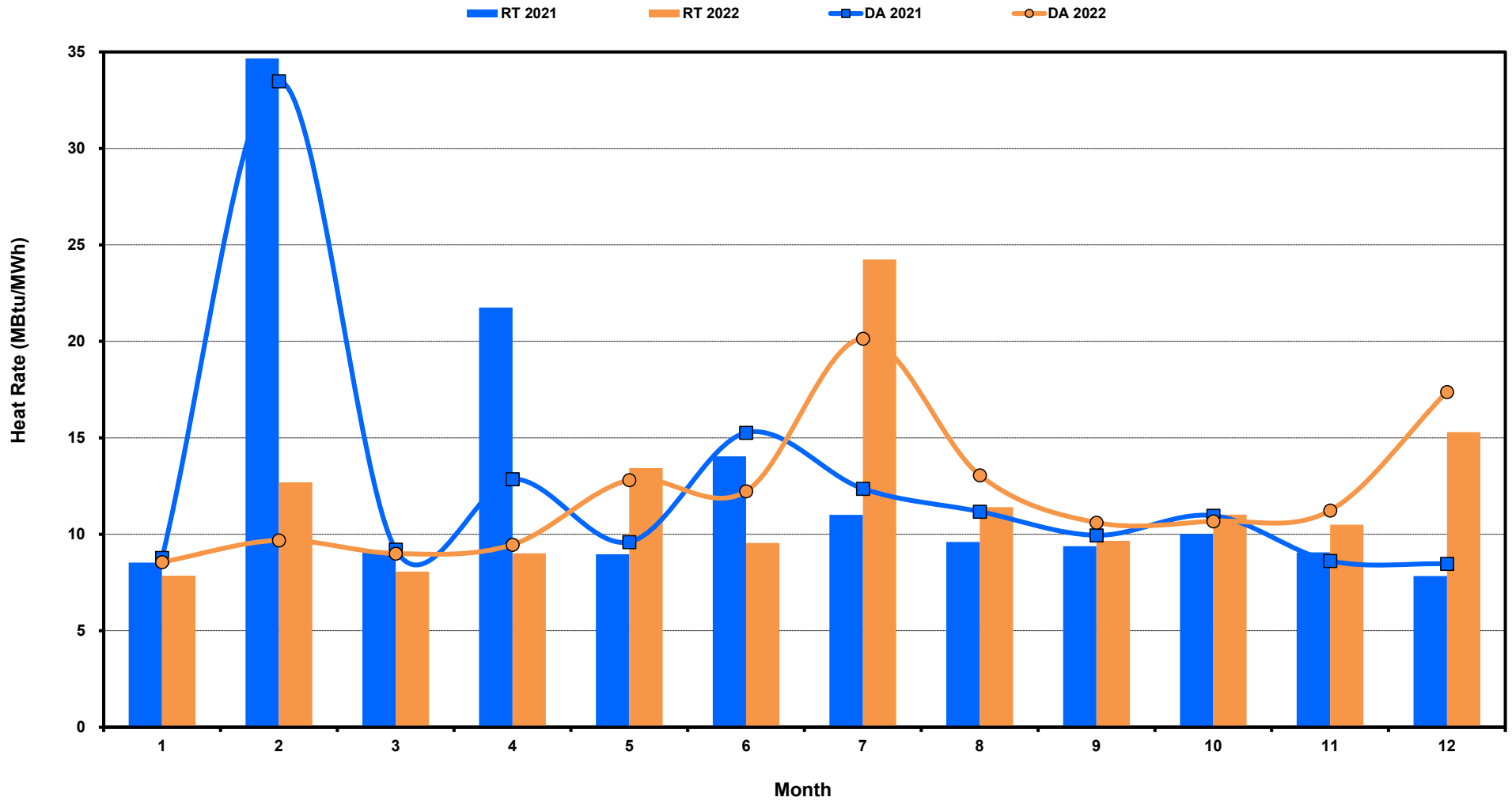
### West Zone



**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)

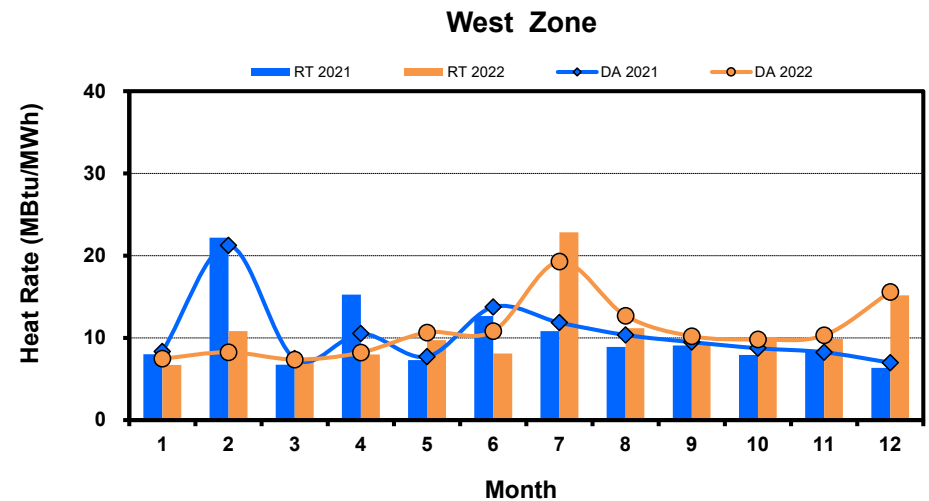
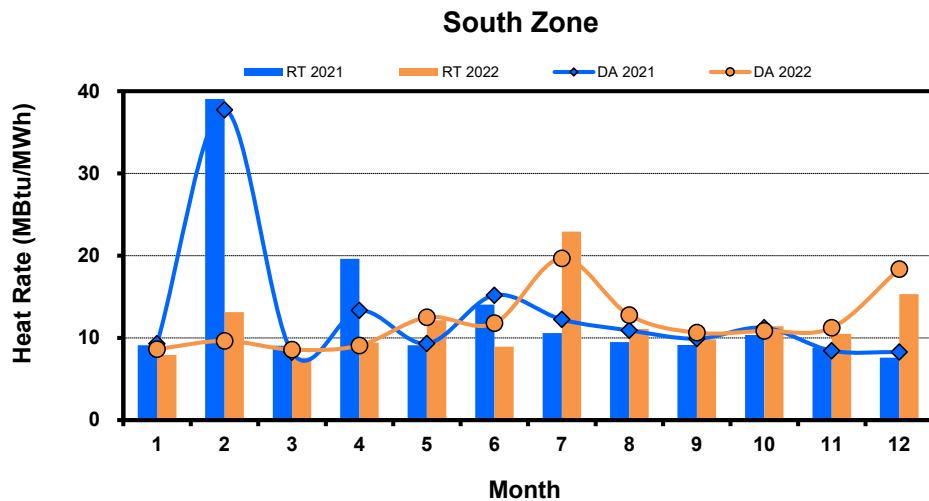
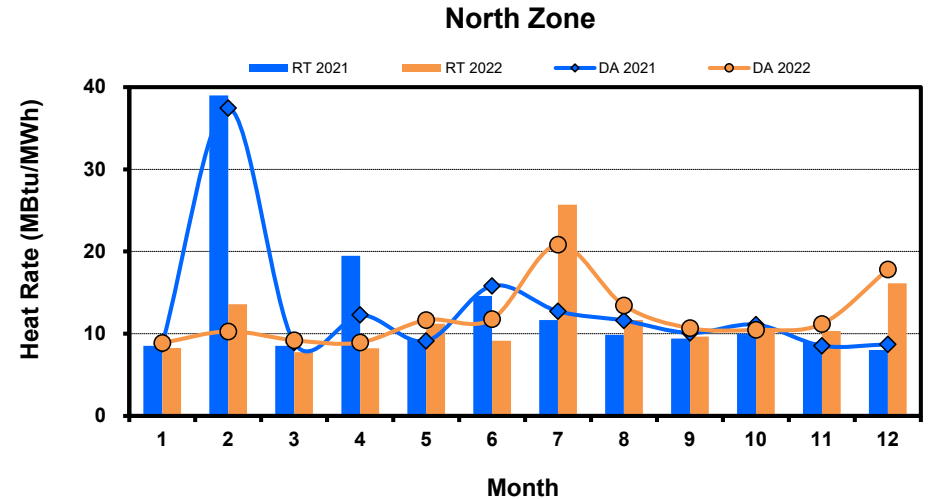
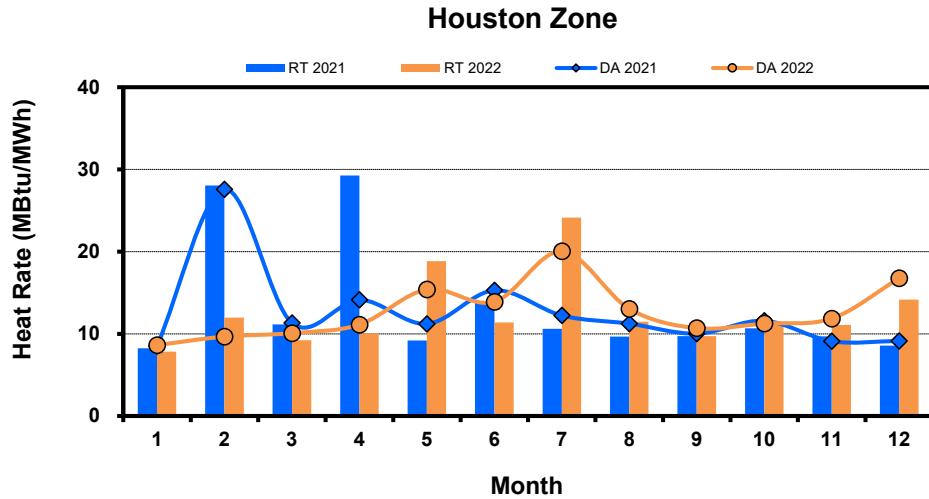
# ERCOT-wide Monthly Implied Heat Rate DA vs RT

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



# Load Zone Monthly Implied Heat Rate DA vs RT

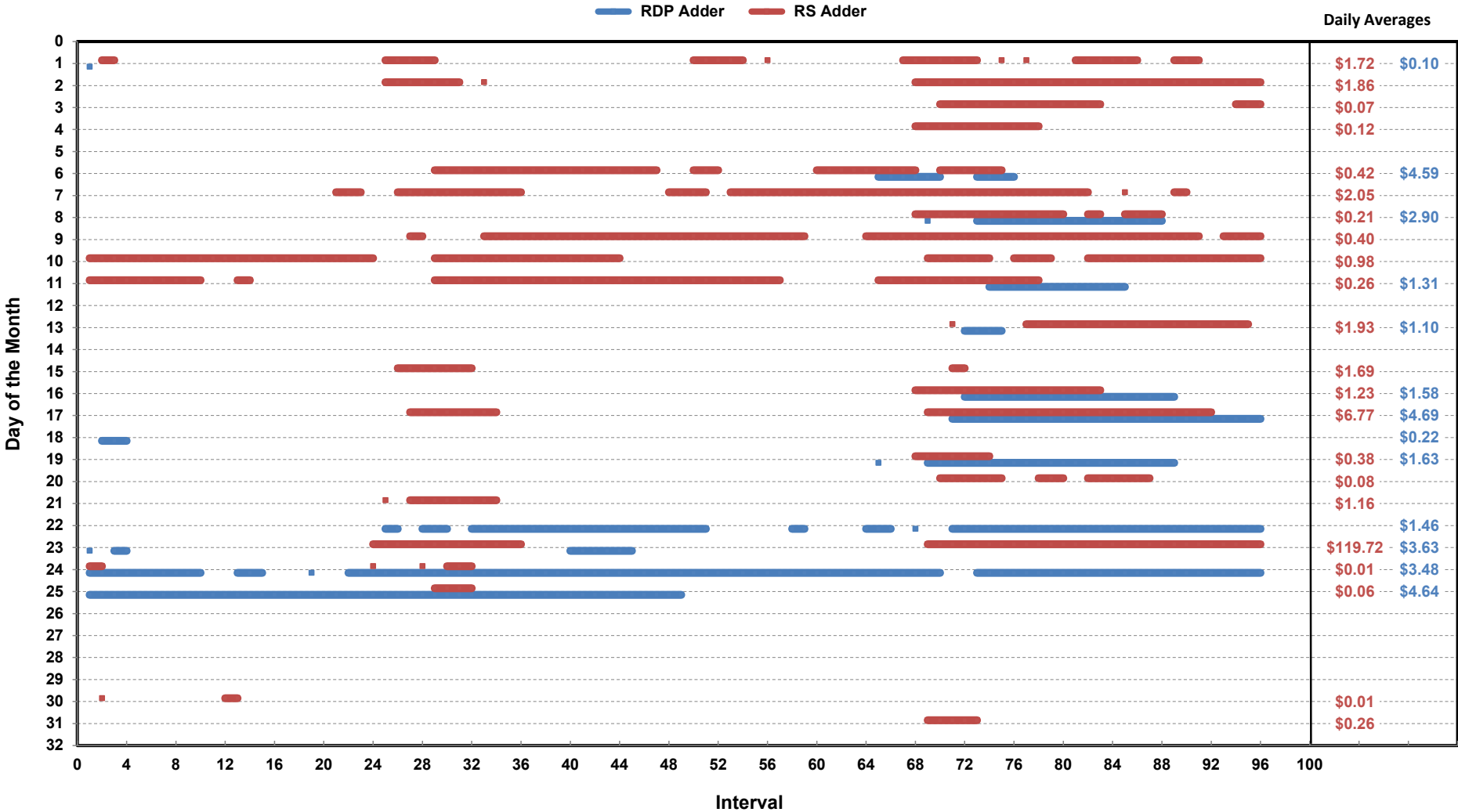
(avg. heat rates weighted by Real Time Settlement Loads)  
 (Nodal load zone made comparable to zonal sytem Load Zone definitions\*)



**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)

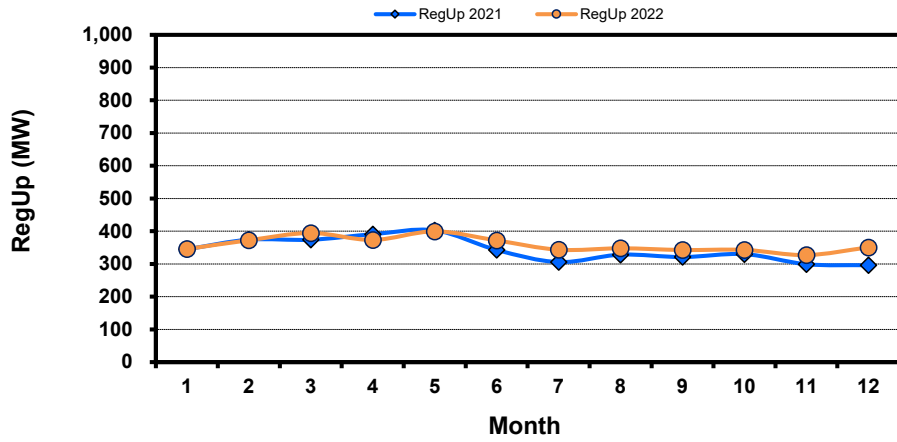
# Daily ORDC Adders Average Values and Interval Duration

## Dec-2022

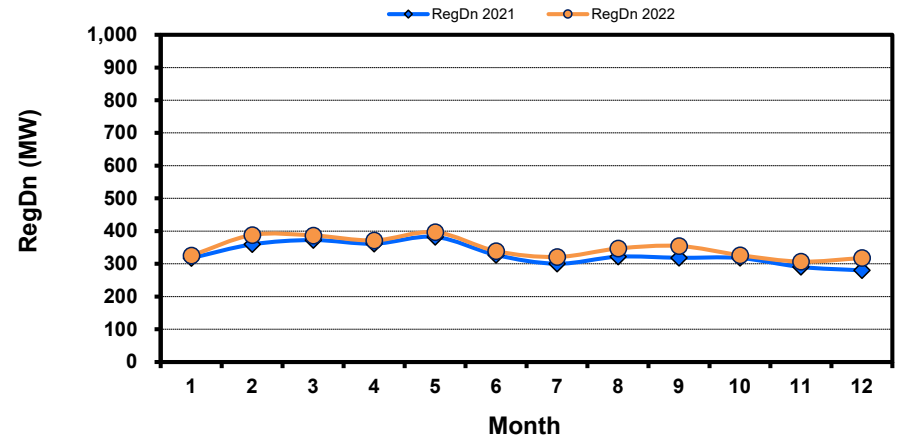


# Monthly Average of Ancillary Services Required MW

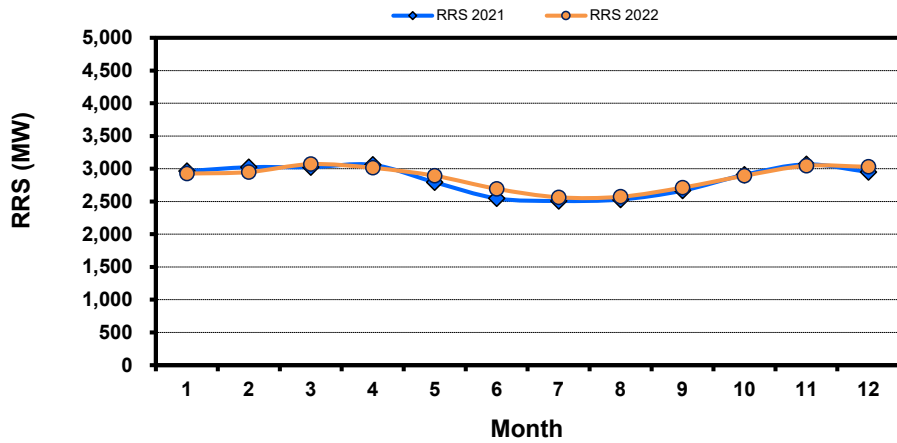
## Regulation Up



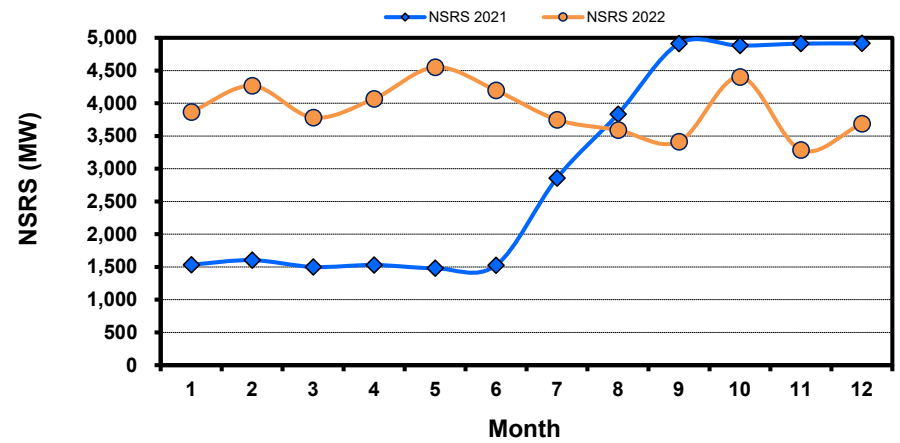
## Regulation Down



## Responsive Reserve



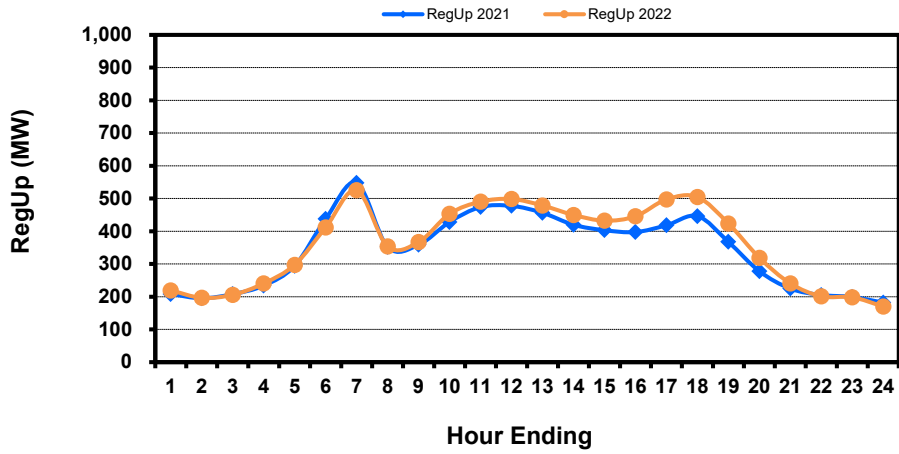
## Non-Spin Reserve



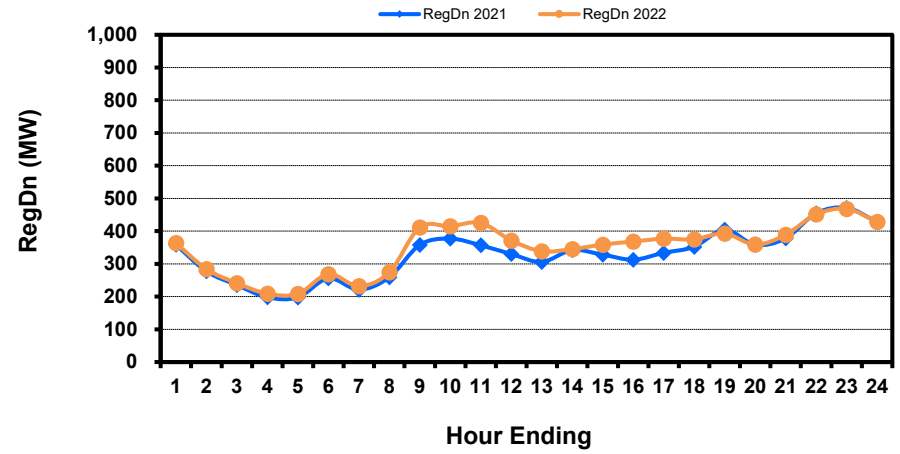


# Hourly Average of Ancillary Services Required MW

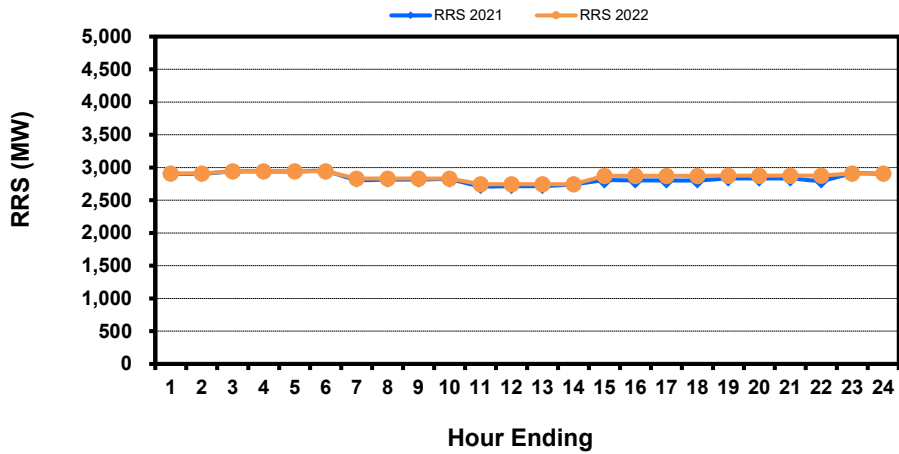
## Regulation Up



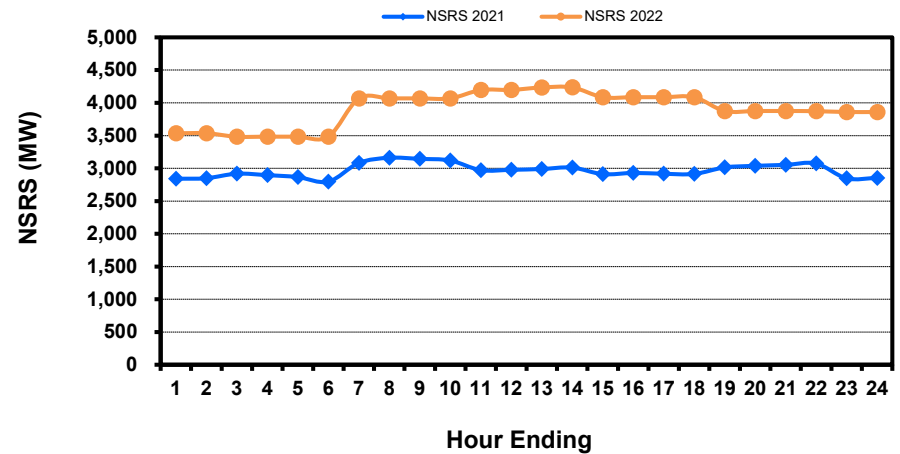
## Regulation Down



## Responsive Reserve



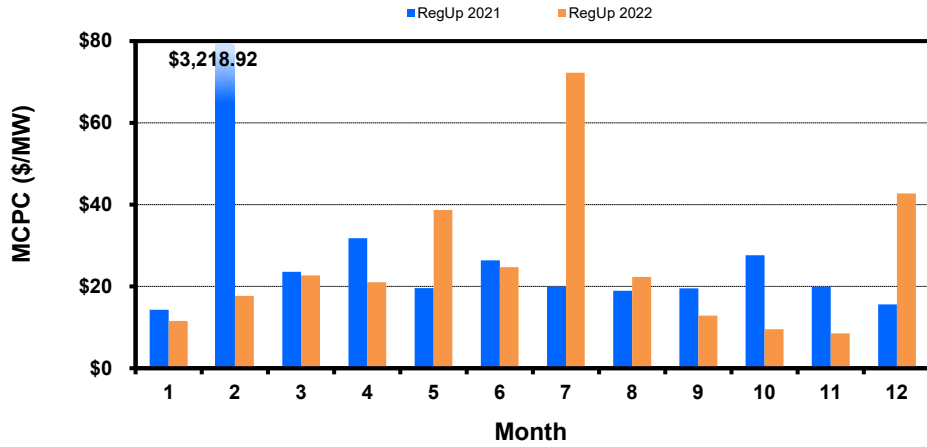
## Non-Spin Reserve



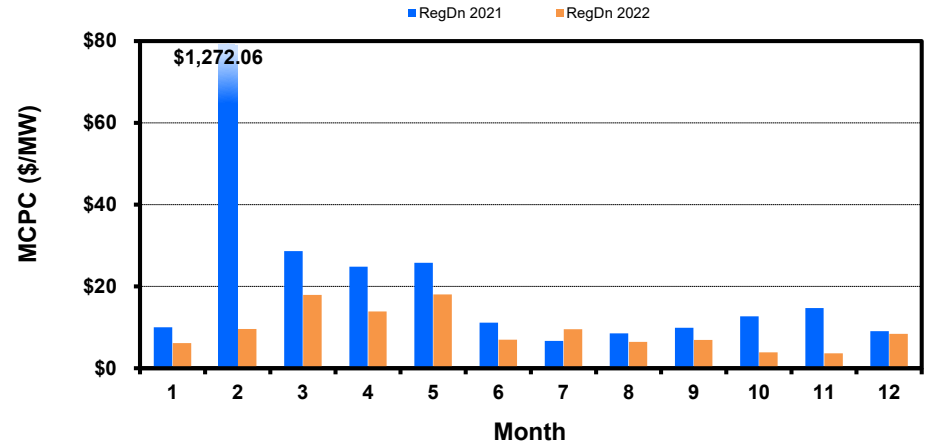
# Monthly Average Ancillary Services Price

(weighted by A/S Quantities Required)

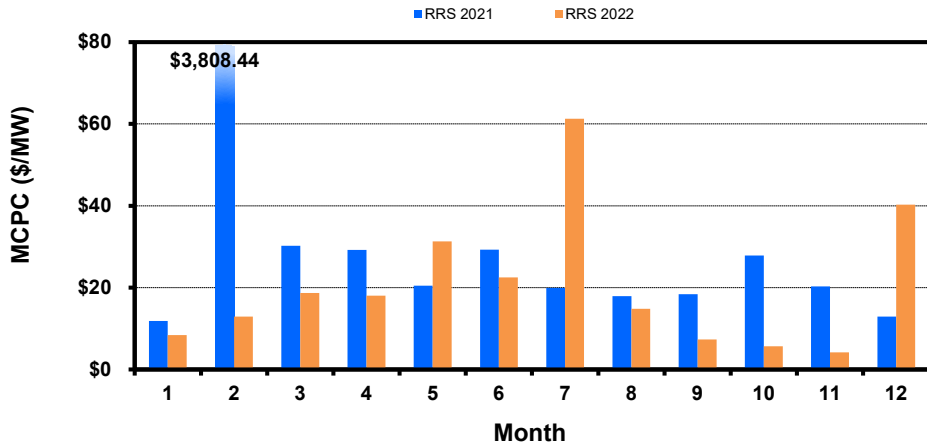
### Regulation Up



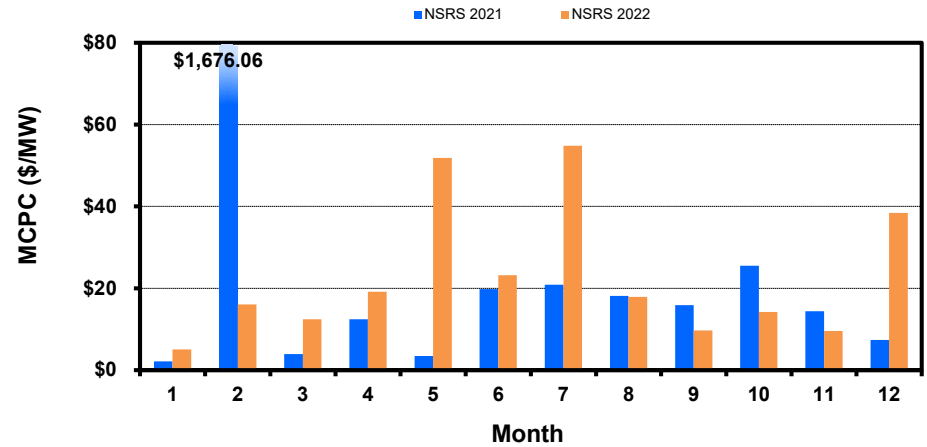
### Regulation Down



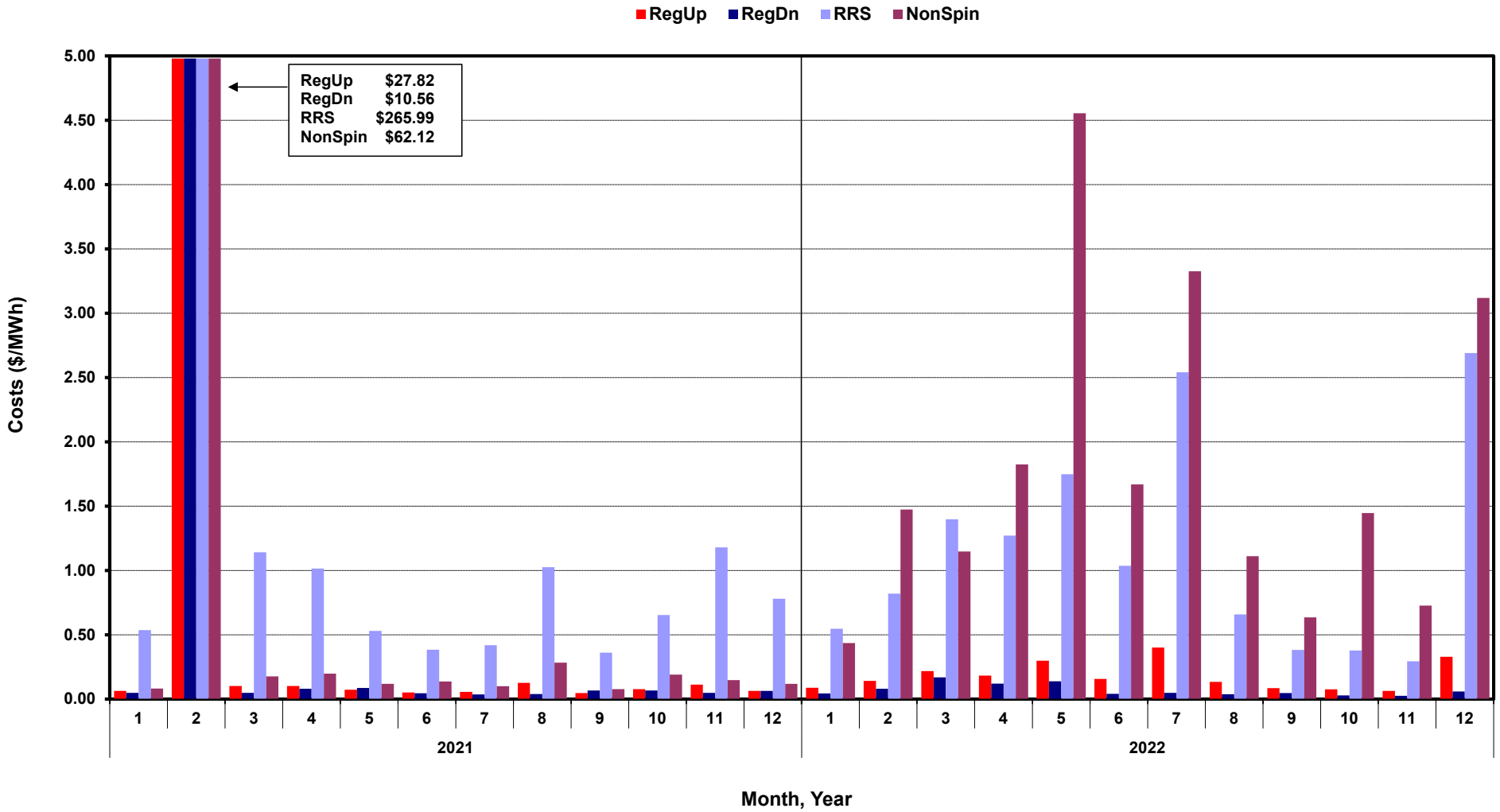
### Responsive Reserve



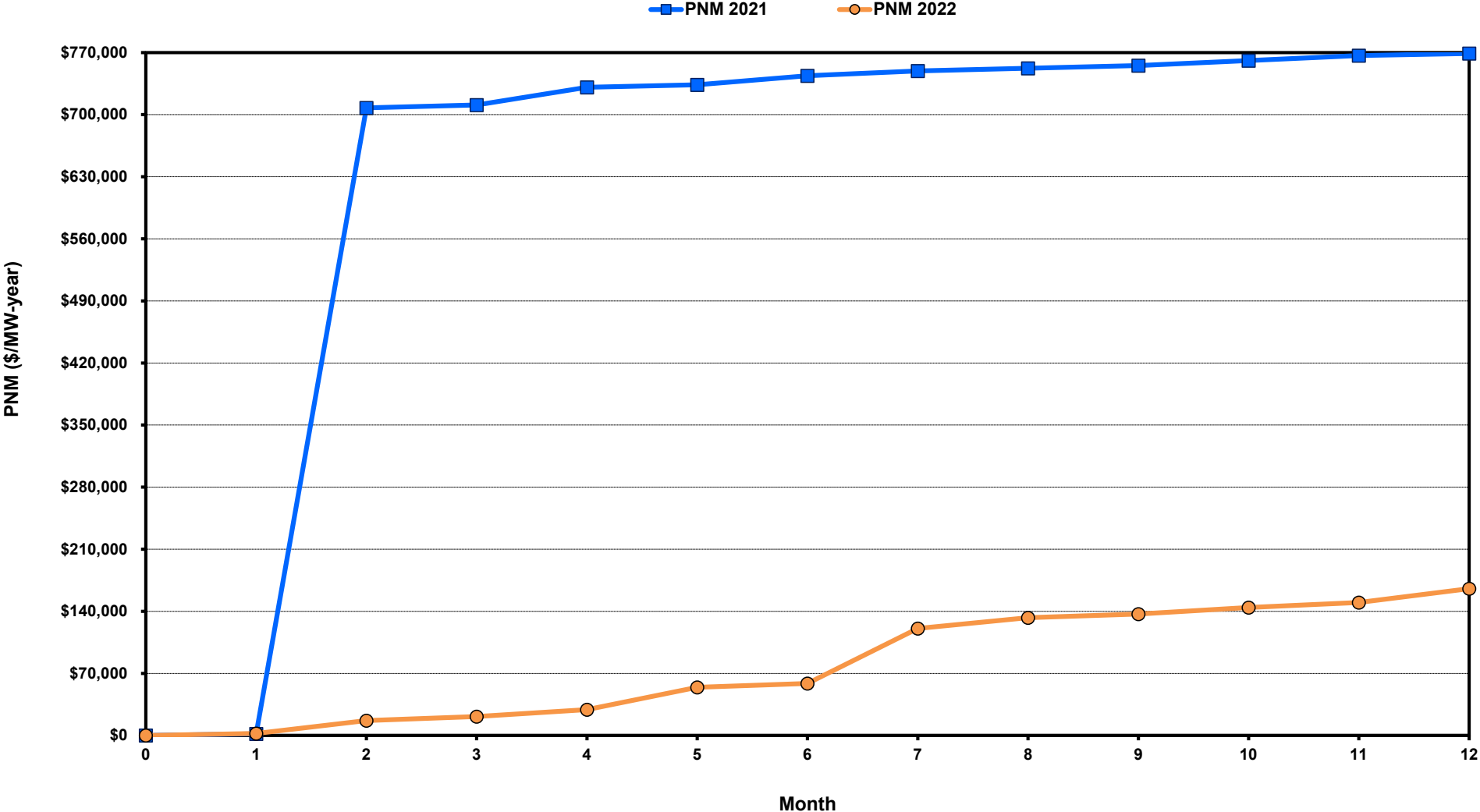
### Non-Spin Reserve



# Monthly Average A/S Cost per MWh Load

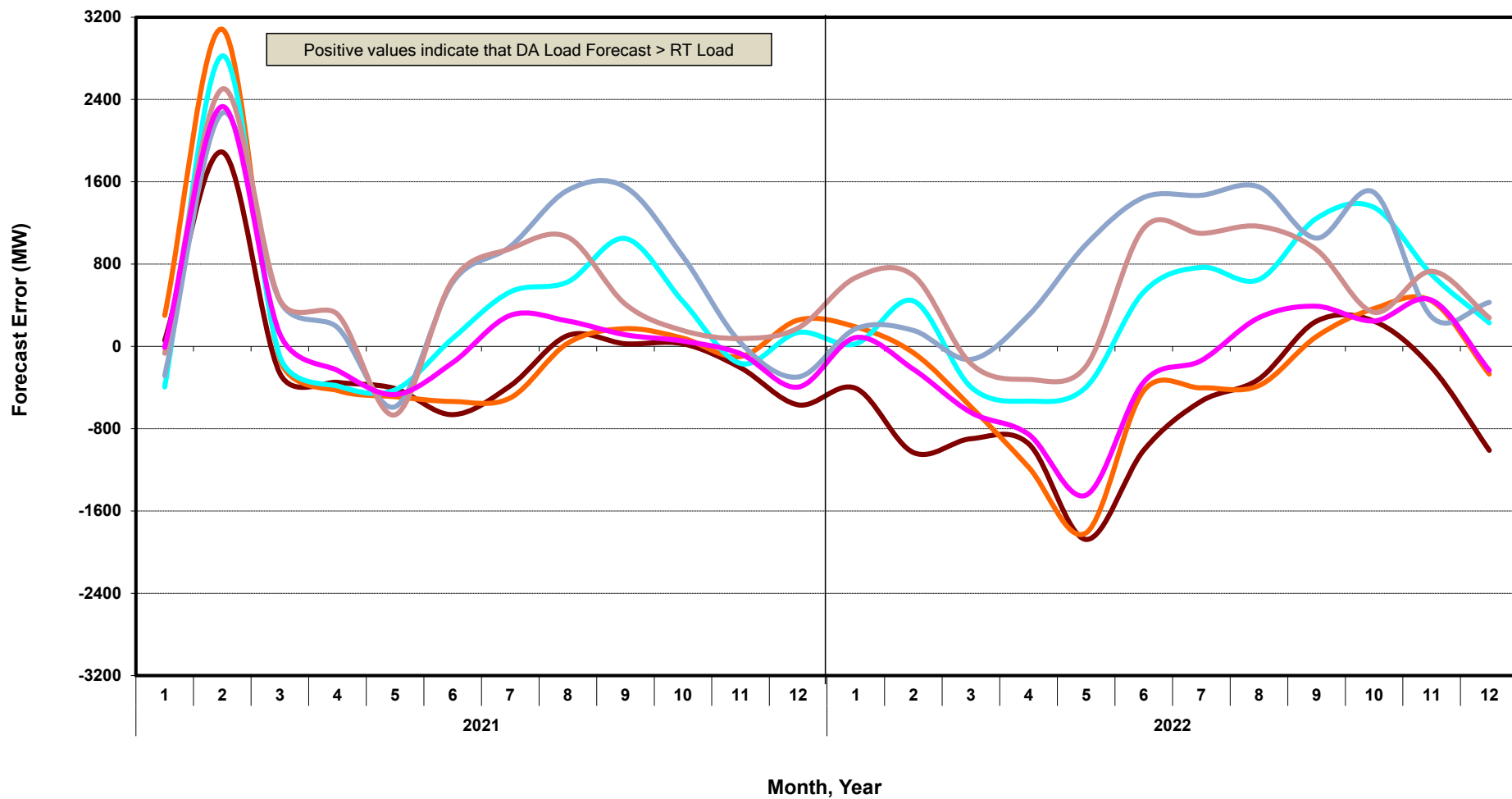


# ERCOT-wide Cumulative Peaker Net Margin

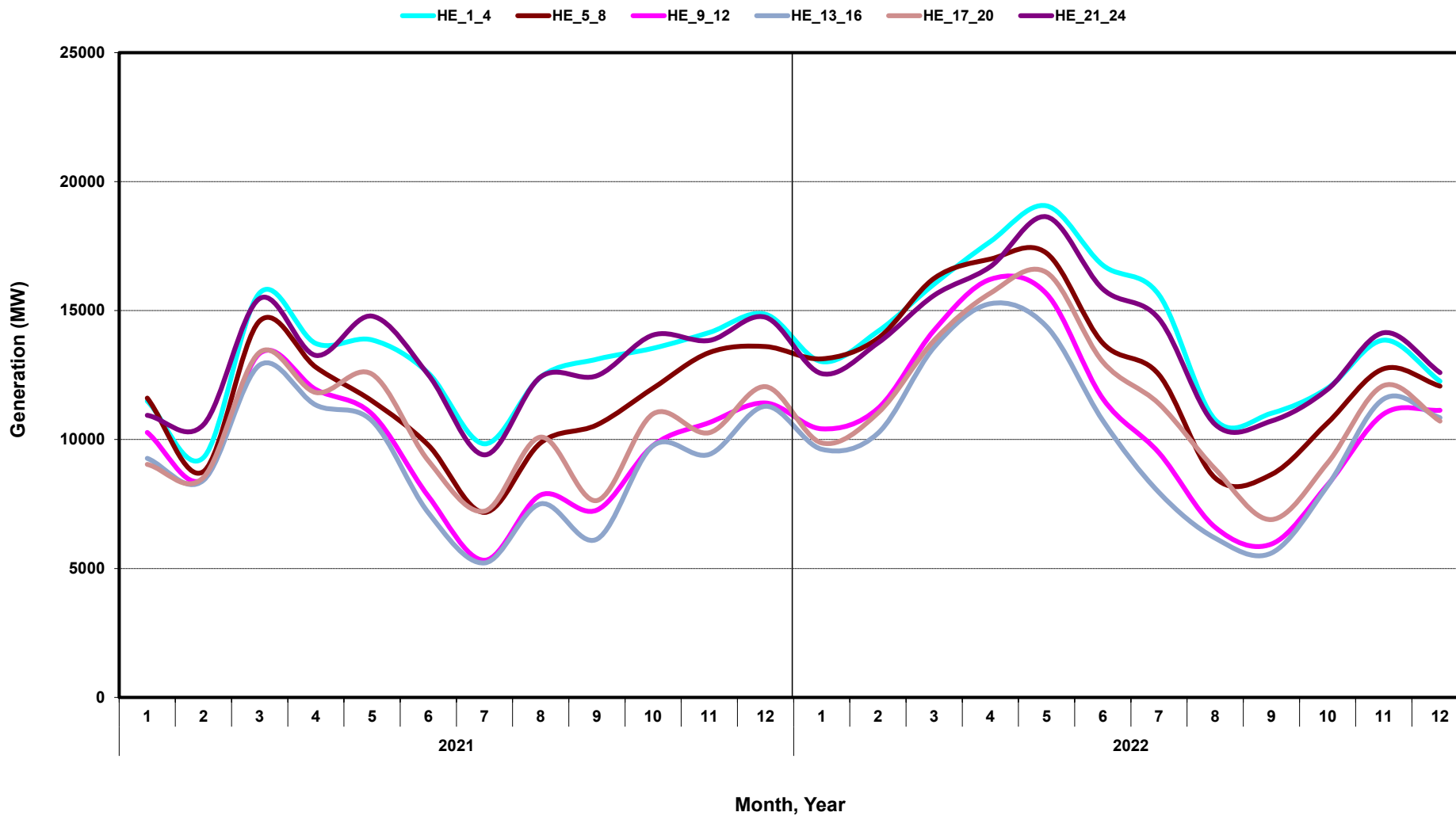


# DA vs. RT Load Forecast Error by Hour Ending

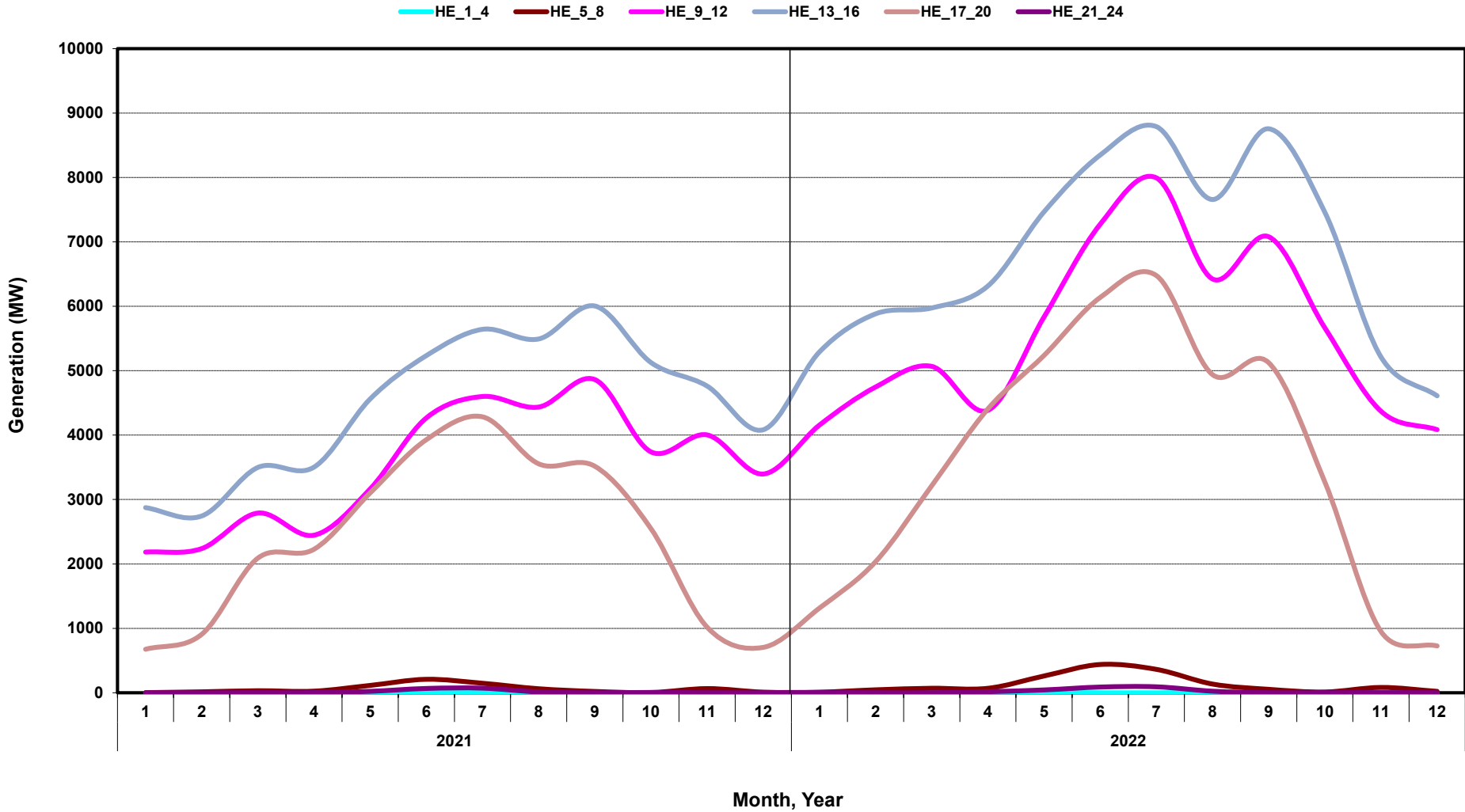
HE\_1\_4   HE\_5\_8   HE\_9\_12   HE\_13\_16   HE\_17\_20   HE\_21\_24



# Monthly Average of Wind Generation by Hour Ending

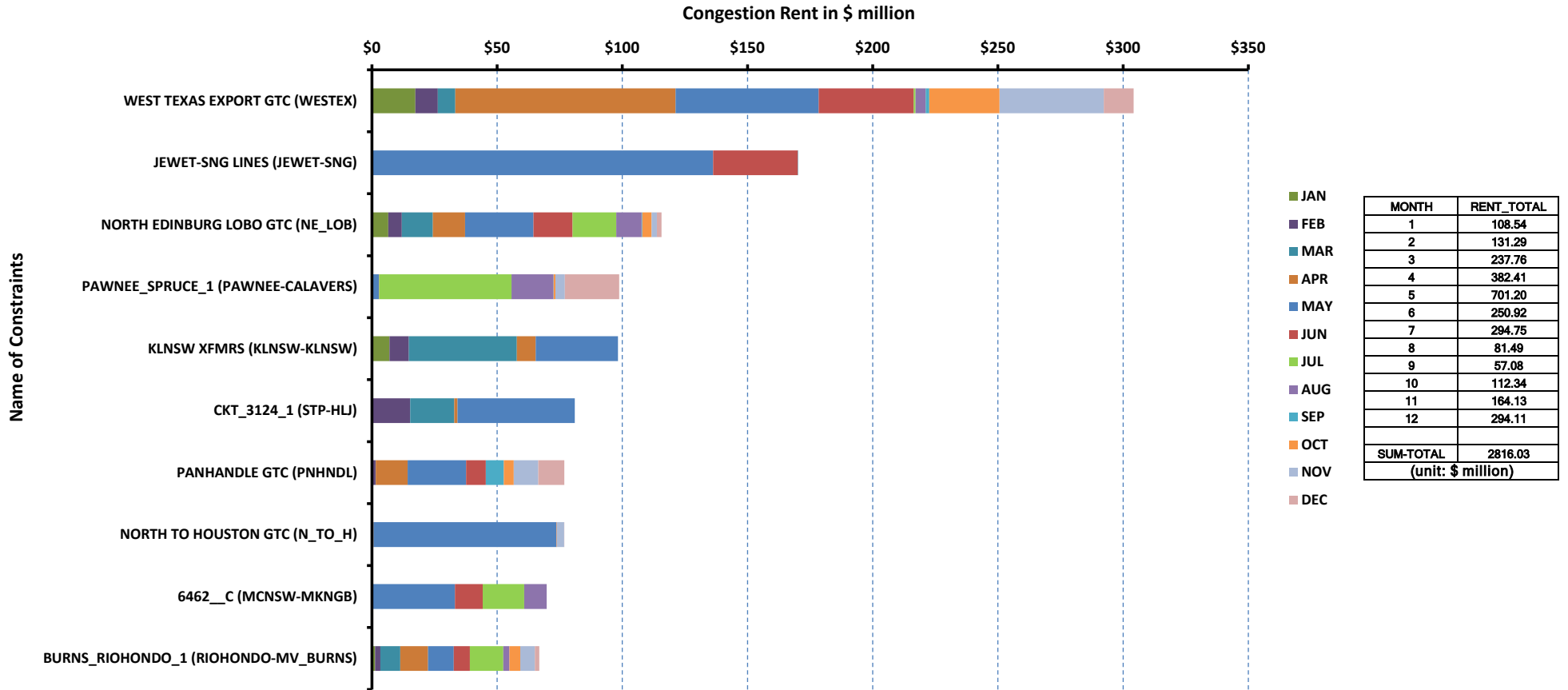


# Monthly Average of Solar Generation by Hour Ending



# RT Congestion Constraint Rankings - 1

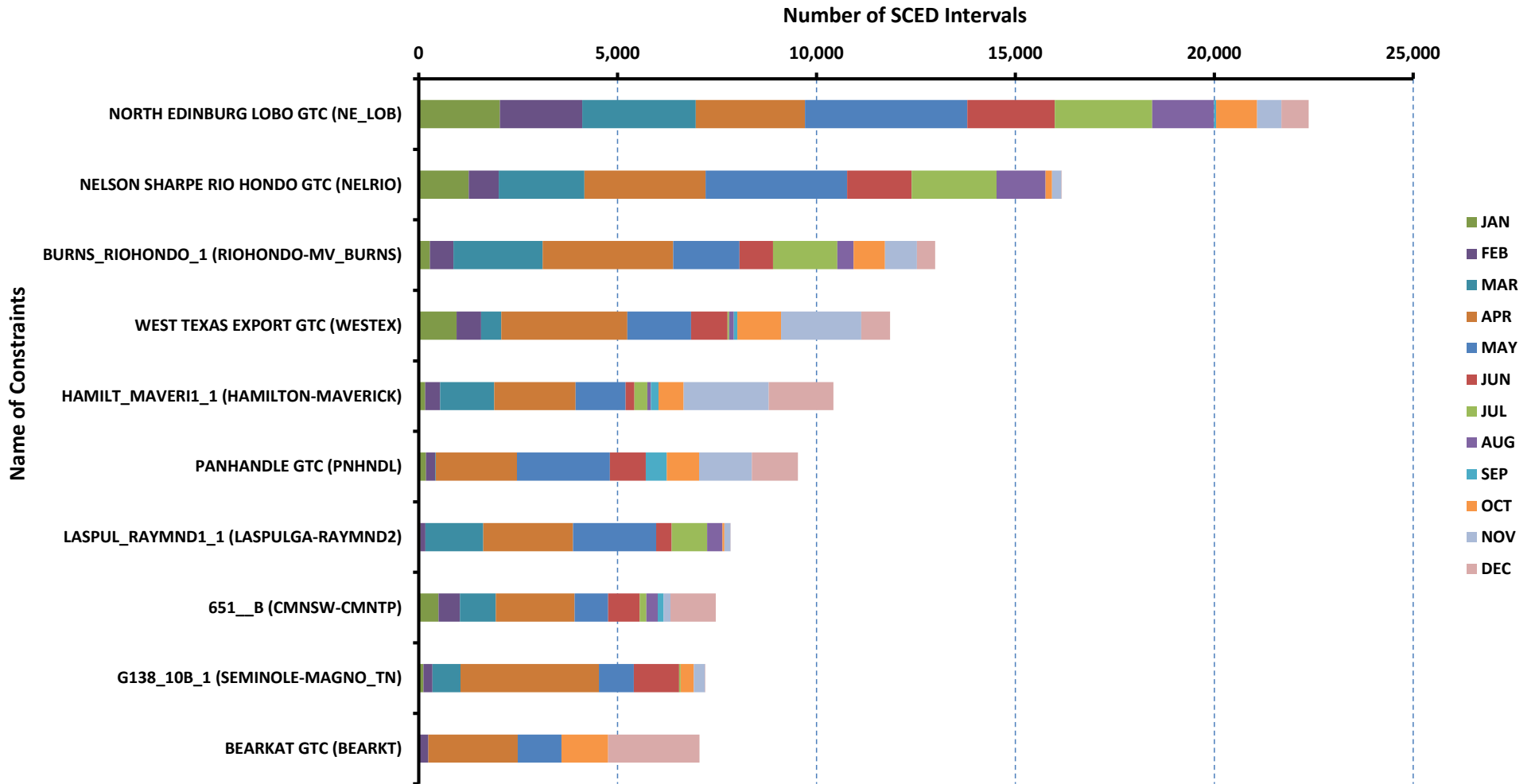
## Top 10 Constraints by Total Congestion Value - 2022





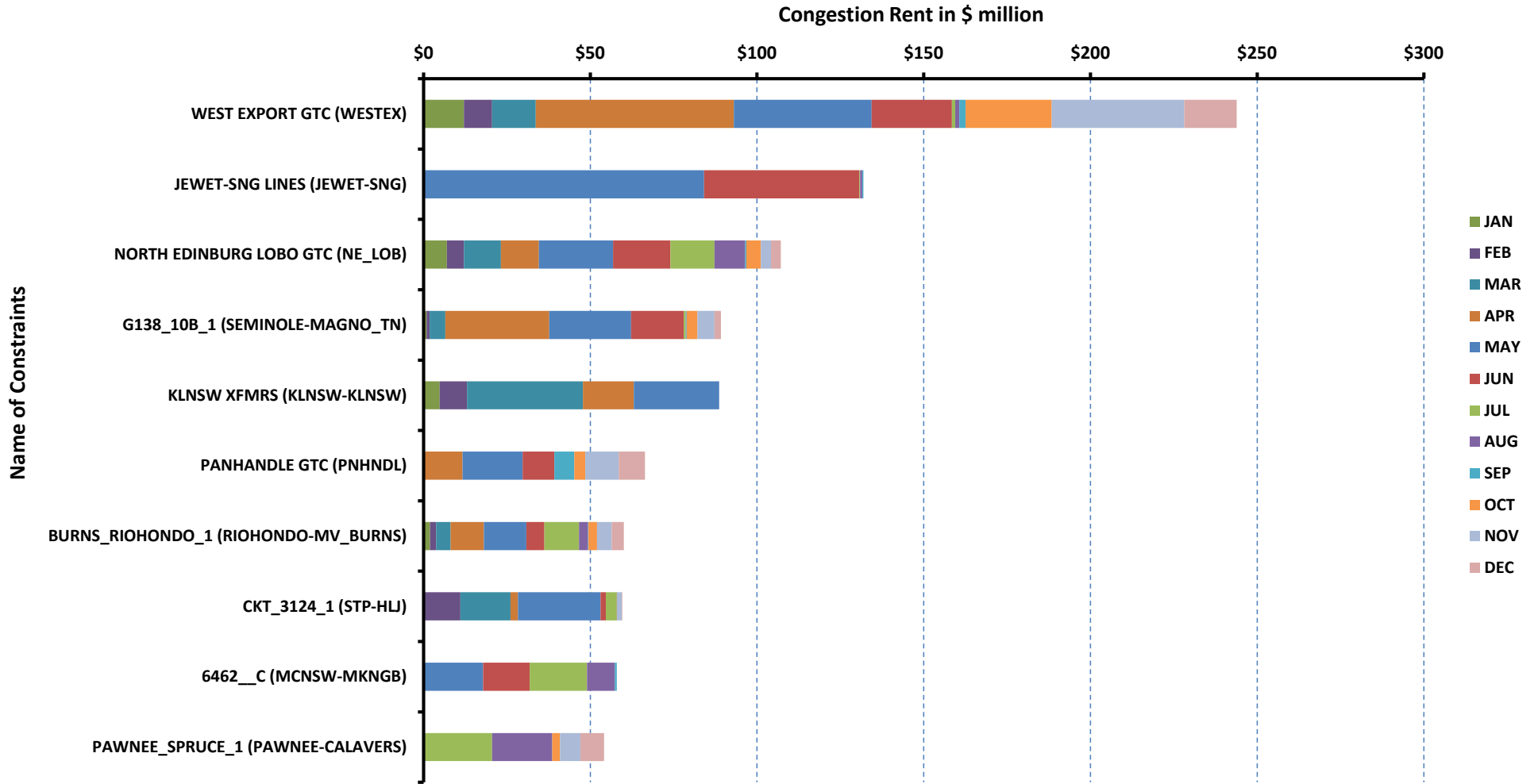
# RT Congestion Constraint Rankings - 2

## Top 10 Constraints by Binding Frequency - 2022



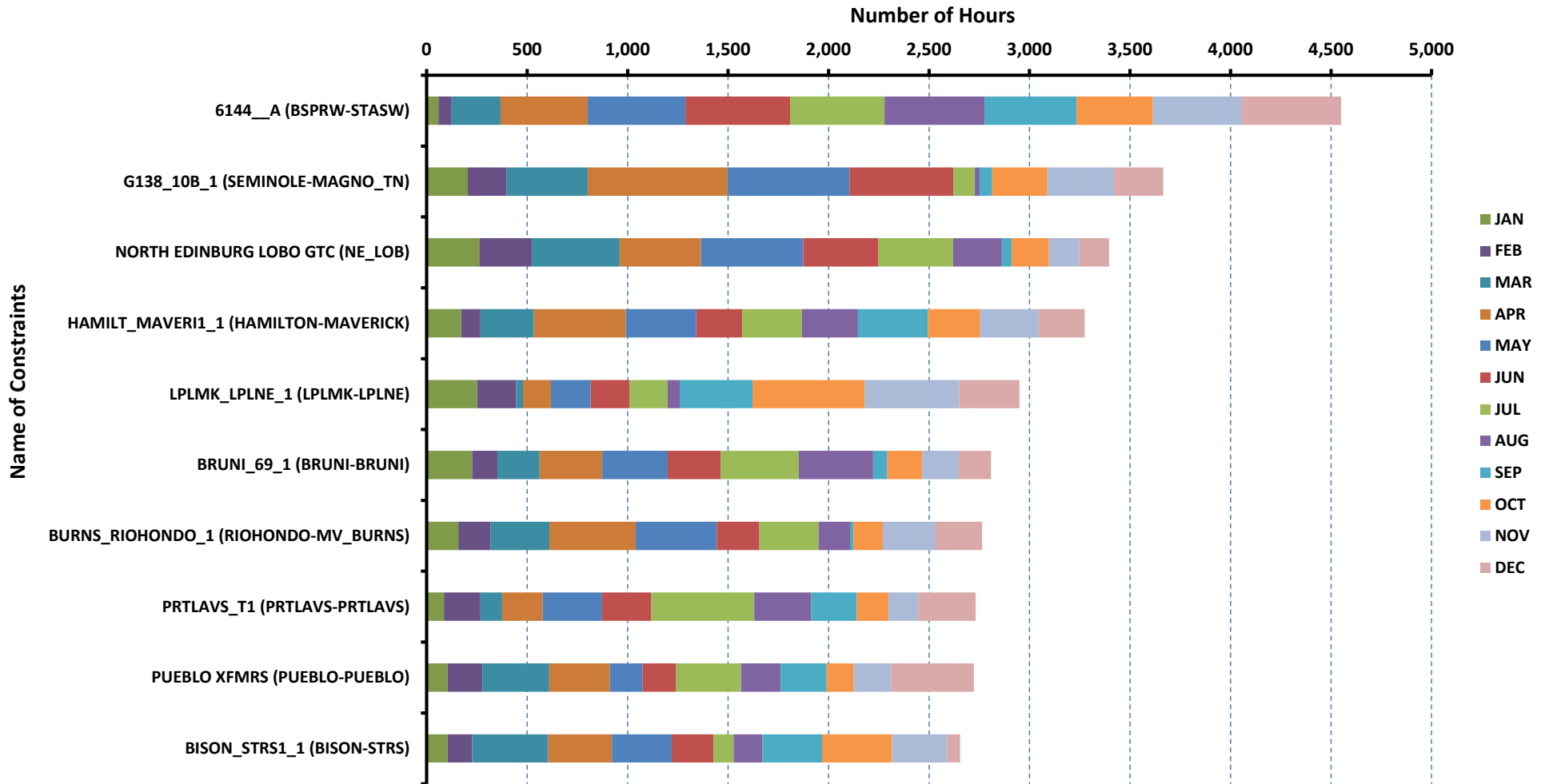
# DA Congestion Constraint Rankings - 1

## Top 10 Constraints by Total Congestion Value - 2022



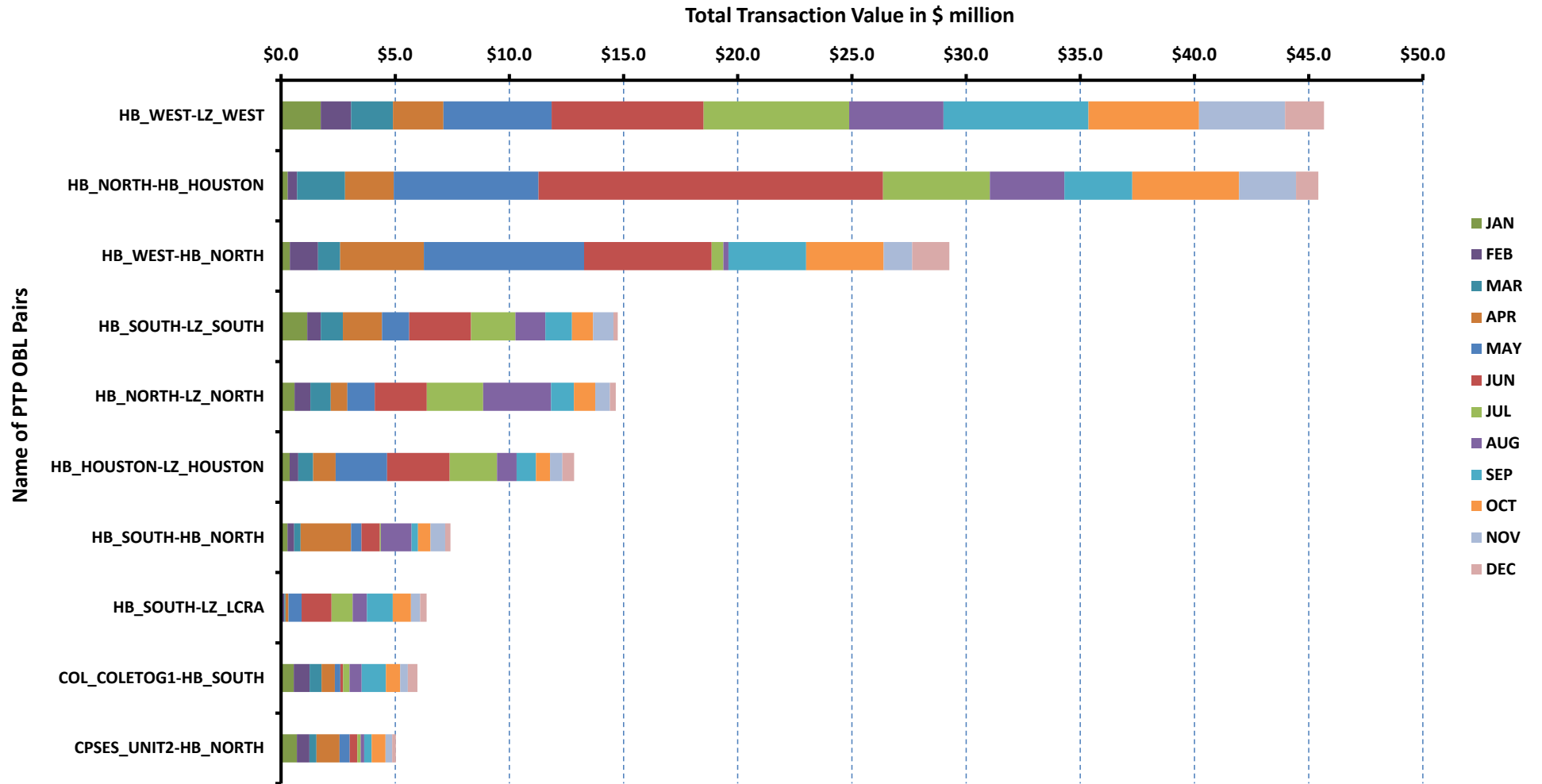
# DA Congestion Constraint Rankings - 2

## Top 10 Constraints by Binding Frequency - 2022



# Top 10 CRR Pairs Ranked by Monthly Auction Values - 1

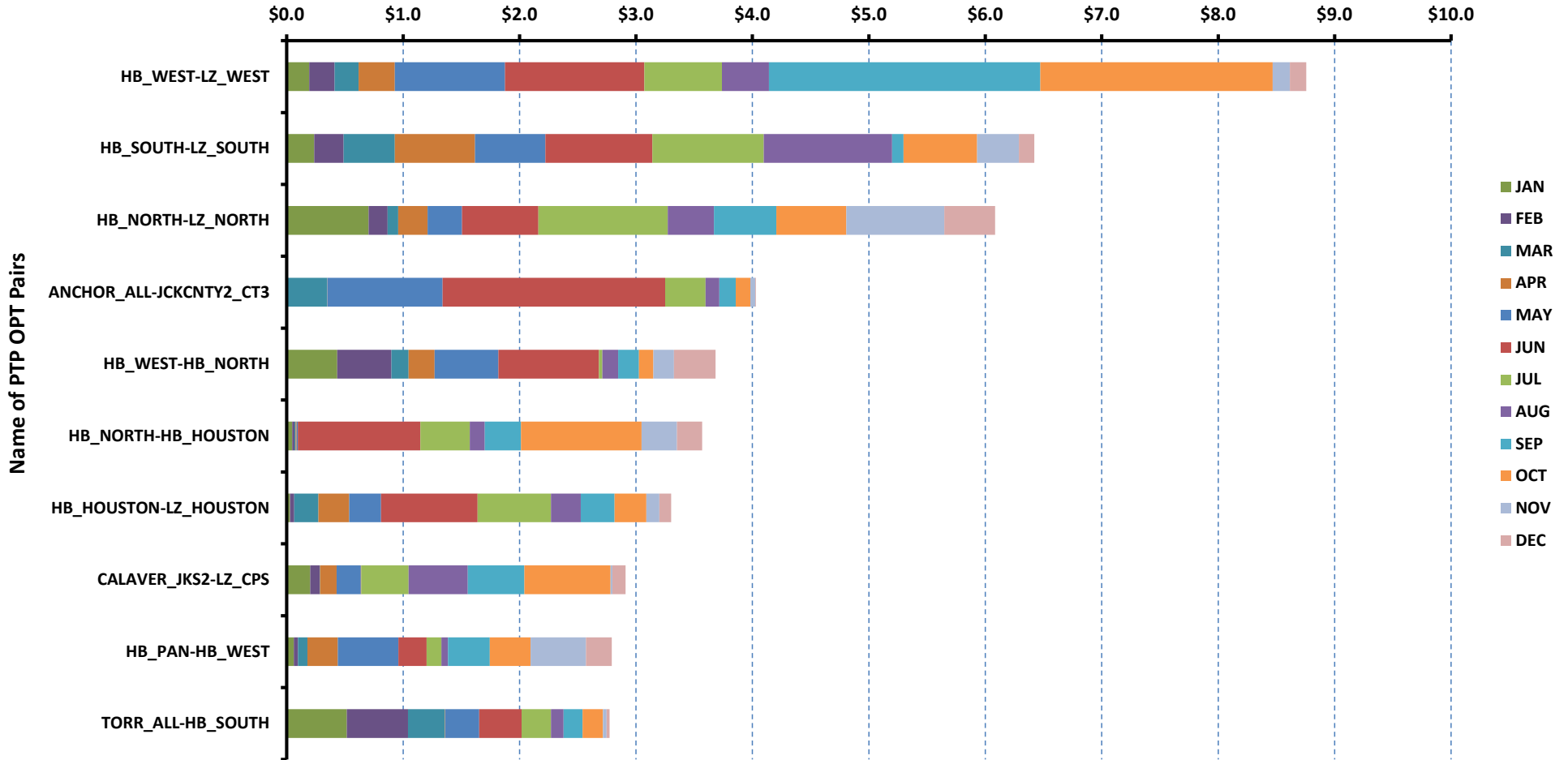
## Top 10 PTP Obligations by Total Transaction Value - 2022



# Top 10 CRR Pairs Ranked by Monthly Auction Values - 2

## Top 10 PTP Options by Total Transaction Value - 2022

Total Transaction Value in \$ million



ERCOT-wide Avg. Energy Price - DA vs. RT			
year	month	dam_spp	rtm_spp
2021	1	\$ 22.60	\$ 21.96
	2	\$ 1,723.84	\$ 1,784.27
	3	\$ 22.49	\$ 22.33
	4	\$ 33.56	\$ 56.73
	5	\$ 27.60	\$ 25.76
	6	\$ 48.37	\$ 44.49
	7	\$ 45.89	\$ 40.84
	8	\$ 44.50	\$ 38.22
	9	\$ 48.95	\$ 46.17
	10	\$ 57.97	\$ 52.94
	11	\$ 41.41	\$ 43.56
	12	\$ 29.94	\$ 27.69
2022	1	\$ 34.35	\$ 31.53
	2	\$ 43.07	\$ 56.44
	3	\$ 40.77	\$ 36.50
	4	\$ 59.57	\$ 56.75
	5	\$ 100.33	\$ 105.11
	6	\$ 90.49	\$ 70.68
	7	\$ 136.65	\$ 164.41
	8	\$ 107.33	\$ 93.70
	9	\$ 74.55	\$ 67.90
	10	\$ 51.60	\$ 53.24
	11	\$ 46.67	\$ 43.61
	12	\$ 77.89	\$ 68.55

Load Zone Load Statistics										
year	month	loadPEAK_Houston	loadPEAK_North	loadPEAK_South	loadPEAK_West	loadAVG_Houston	loadAVG_North	loadAVG_South	loadAVG_West	
2021	1	14,285	21,804	16,813	5,924	10,650	14,885	10,632	5,265	
	2	14,393	29,497	21,142	6,279	9,982	16,969	11,654	4,693	
	3	13,194	17,035	13,265	5,597	10,101	12,283	9,471	4,923	
	4	15,653	17,449	16,229	5,924	11,115	12,312	10,472	5,113	
	5	17,861	22,391	17,715	6,419	12,431	13,469	11,569	5,254	
	6	19,449	26,148	19,149	7,188	14,564	17,718	13,620	5,963	
	7	19,774	27,902	18,942	7,172	14,669	18,817	13,689	6,018	
	8	20,217	27,749	19,854	7,391	15,285	19,442	14,670	6,240	
	9	19,806	28,094	19,781	7,313	13,559	17,403	13,702	6,109	
	10	17,700	22,370	17,366	6,898	12,248	14,174	11,805	5,685	
	11	14,204	16,570	13,433	6,088	10,520	12,681	10,013	5,614	
	12	14,362	18,025	13,777	6,367	11,236	13,113	10,517	5,706	
2022	1	14,538	24,512	17,967	7,086	11,237	15,956	11,622	6,076	
	2	16,355	26,051	21,091	7,265	11,493	16,574	12,372	6,106	
	3	13,743	21,306	15,955	7,022	10,826	13,572	10,613	5,981	
	4	15,984	19,684	17,088	7,352	11,660	13,361	11,643	6,099	
	5	19,616	25,004	19,781	8,076	14,530	16,528	14,149	6,587	
	6	20,558	28,957	20,734	7,989	15,490	20,238	15,790	6,874	
	7	20,499	31,049	21,709	8,263	15,418	22,585	16,570	7,236	
	8	20,327	29,898	21,459	8,304	14,680	20,452	15,604	7,062	
	9	19,069	26,329	19,003	7,899	13,469	17,453	14,207	6,846	
	10	17,622	23,256	18,604	7,432	11,180	13,754	11,854	6,461	
	11	15,498	19,255	15,889	7,523	10,660	14,240	11,586	6,800	
	12	16,724	30,054	22,003	8,634	10,709	15,476	12,325	6,887	

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
2021	1	\$ 21.23	\$ 21.92	\$ 23.45	\$ 20.58	\$ 21.92	\$ 22.57	\$ 23.90	\$ 21.47
	2	\$ 1,444.30	\$ 2,006.83	\$ 2,010.13	\$ 1,141.64	\$ 1,418.89	\$ 1,927.26	\$ 1,942.48	\$ 1,093.92
	3	\$ 27.22	\$ 20.85	\$ 22.09	\$ 16.44	\$ 27.64	\$ 21.77	\$ 20.15	\$ 18.25
	4	\$ 76.32	\$ 50.81	\$ 51.13	\$ 39.84	\$ 36.88	\$ 32.06	\$ 34.79	\$ 27.42
	5	\$ 26.40	\$ 26.73	\$ 26.13	\$ 20.95	\$ 32.20	\$ 26.20	\$ 26.74	\$ 22.18
	6	\$ 44.10	\$ 46.25	\$ 44.51	\$ 40.10	\$ 48.43	\$ 50.14	\$ 48.11	\$ 43.58
	7	\$ 39.37	\$ 43.29	\$ 39.31	\$ 40.20	\$ 45.37	\$ 47.26	\$ 45.40	\$ 43.99
	8	\$ 38.45	\$ 39.24	\$ 37.81	\$ 35.44	\$ 44.72	\$ 46.19	\$ 43.41	\$ 41.21
	9	\$ 47.88	\$ 46.32	\$ 44.96	\$ 44.69	\$ 49.28	\$ 49.69	\$ 48.72	\$ 46.65
	10	\$ 56.45	\$ 52.88	\$ 54.69	\$ 41.90	\$ 61.23	\$ 58.72	\$ 59.37	\$ 46.19
	11	\$ 46.62	\$ 43.13	\$ 42.51	\$ 40.65	\$ 43.70	\$ 41.01	\$ 40.52	\$ 39.64
	12	\$ 30.32	\$ 28.35	\$ 26.88	\$ 22.46	\$ 32.27	\$ 30.78	\$ 29.25	\$ 24.69
2022	1	\$ 31.41	\$ 33.20	\$ 31.75	\$ 26.95	\$ 34.60	\$ 35.62	\$ 34.65	\$ 29.95
	2	\$ 53.15	\$ 60.40	\$ 58.32	\$ 48.04	\$ 42.94	\$ 45.71	\$ 42.80	\$ 36.68
	3	\$ 41.71	\$ 35.15	\$ 34.34	\$ 33.97	\$ 45.63	\$ 41.70	\$ 38.79	\$ 33.36
	4	\$ 63.32	\$ 51.82	\$ 59.27	\$ 50.18	\$ 69.99	\$ 56.22	\$ 57.10	\$ 51.67
	5	\$ 147.58	\$ 87.96	\$ 95.04	\$ 76.06	\$ 120.53	\$ 91.33	\$ 97.95	\$ 83.42
	6	\$ 84.26	\$ 67.65	\$ 65.97	\$ 59.83	\$ 102.83	\$ 87.20	\$ 87.16	\$ 79.99
	7	\$ 163.80	\$ 174.37	\$ 155.53	\$ 154.98	\$ 135.97	\$ 141.34	\$ 133.50	\$ 130.71
	8	\$ 94.23	\$ 95.96	\$ 91.09	\$ 91.80	\$ 107.08	\$ 110.45	\$ 104.84	\$ 104.31
	9	\$ 68.24	\$ 67.75	\$ 68.88	\$ 65.60	\$ 75.10	\$ 75.11	\$ 74.70	\$ 71.71
	10	\$ 54.81	\$ 52.42	\$ 55.09	\$ 48.87	\$ 54.35	\$ 50.59	\$ 52.45	\$ 47.45
	11	\$ 46.04	\$ 42.99	\$ 43.64	\$ 41.03	\$ 49.27	\$ 46.55	\$ 46.68	\$ 42.84
	12	\$ 63.48	\$ 72.29	\$ 68.62	\$ 67.93	\$ 75.11	\$ 79.83	\$ 82.33	\$ 69.90



ERCOT-wide Monthly Implied Heat Rate - DA vs. RT						
year	month	gasprice	rtm_spp	HR_rtm	dam_spp	HR_dam
2021	1	\$ 2.57	\$ 21.96	8.53	\$ 22.60	8.78
	2	\$ 51.48	\$ 1,784.27	34.66	\$ 1,723.84	33.49
	3	\$ 2.44	\$ 22.33	9.14	\$ 22.49	9.21
	4	\$ 2.61	\$ 56.73	21.74	\$ 33.56	12.86
	5	\$ 2.87	\$ 25.76	8.96	\$ 27.60	9.60
	6	\$ 3.17	\$ 44.49	14.04	\$ 48.37	15.27
	7	\$ 3.71	\$ 40.84	11.00	\$ 45.89	12.36
	8	\$ 3.98	\$ 38.22	9.60	\$ 44.50	11.18
	9	\$ 4.92	\$ 46.17	9.38	\$ 48.95	9.95
	10	\$ 5.29	\$ 52.94	10.01	\$ 57.97	10.97
	11	\$ 4.81	\$ 43.56	9.06	\$ 41.41	8.62
	12	\$ 3.54	\$ 27.69	7.83	\$ 29.94	8.47
2022	1	\$ 4.01	\$ 31.53	7.86	\$ 34.35	8.56
	2	\$ 4.45	\$ 56.44	12.70	\$ 43.07	9.69
	3	\$ 4.53	\$ 36.50	8.06	\$ 40.77	9.00
	4	\$ 6.29	\$ 56.75	9.02	\$ 59.57	9.46
	5	\$ 7.83	\$ 105.11	13.43	\$ 100.33	12.81
	6	\$ 7.40	\$ 70.68	9.55	\$ 90.49	12.23
	7	\$ 6.78	\$ 164.41	24.24	\$ 136.65	20.15
	8	\$ 8.22	\$ 93.70	11.40	\$ 107.33	13.06
	9	\$ 7.03	\$ 67.90	9.66	\$ 74.55	10.61
	10	\$ 4.83	\$ 53.24	11.02	\$ 51.60	10.68
	11	\$ 4.16	\$ 43.61	10.49	\$ 46.67	11.23
	12	\$ 4.48	\$ 68.55	15.30	\$ 77.89	17.38

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
2021	1	8.52	9.29	8.77	8.34	8.25	9.11	8.52	8.00
	2	27.56	37.73	37.44	21.25	28.06	39.05	38.98	22.18
	3	11.32	8.25	8.91	7.47	11.14	9.04	8.53	6.73
	4	14.14	13.33	12.29	10.51	29.25	19.60	19.48	15.27
	5	11.21	9.30	9.12	7.72	9.19	9.09	9.30	7.29
	6	15.28	15.18	15.82	13.75	13.92	14.05	14.60	12.65
	7	12.22	12.23	12.73	11.85	10.61	10.59	11.66	10.83
	8	11.23	10.91	11.60	10.35	9.66	9.50	9.86	8.90
	9	10.01	9.90	10.10	9.48	9.73	9.14	9.41	9.08
	10	11.58	11.23	11.11	8.74	10.68	10.34	10.00	7.93
	11	9.09	8.43	8.53	8.25	9.70	8.85	8.98	8.46
	12	9.13	8.27	8.70	6.98	8.58	7.60	8.02	6.35
2022	1	8.62	8.64	8.88	7.46	7.83	7.91	8.27	6.72
	2	9.66	9.63	10.28	8.25	11.96	13.12	13.59	10.81
	3	10.08	8.56	9.21	7.37	9.21	7.58	7.76	7.50
	4	11.12	9.07	8.93	8.21	10.06	9.41	8.23	7.97
	5	15.40	12.51	11.67	10.66	18.85	12.14	11.24	9.72
	6	13.90	11.78	11.79	10.81	11.39	8.92	9.14	8.09
	7	20.04	19.68	20.84	19.27	24.15	22.93	25.71	22.85
	8	13.03	12.76	13.44	12.70	11.47	11.09	11.68	11.17
	9	10.68	10.63	10.69	10.20	9.71	9.80	9.64	9.33
	10	11.25	10.85	10.47	9.82	11.34	11.40	10.85	10.11
	11	11.86	11.23	11.20	10.31	11.08	10.50	10.34	9.87
	12	16.76	18.37	17.82	15.60	14.17	15.31	16.13	15.16

Daily ORDC Adders Average Values and Interval Duration								
YEAR	MONTH	DAY	PRICE_RS	PRICE_RDP	RS_CNT	RDP_CNT	RS_POS	RDP_POS
2022	12	1	\$ 1.72	\$ 0.10	31	1	80	90
2022	12	2	\$ 1.86	\$ -	37	0	80	90
2022	12	3	\$ 0.07	\$ -	17	0	80	90
2022	12	4	\$ 0.12	\$ -	11	0	80	90
2022	12	5	\$ -	\$ -	0	0	80	90
2022	12	6	\$ 0.42	\$ 4.59	37	10	80	90
2022	12	7	\$ 2.05	\$ -	51	0	80	90
2022	12	8	\$ 0.21	\$ 2.90	19	17	80	90
2022	12	9	\$ 0.40	\$ -	61	0	80	90
2022	12	10	\$ 0.98	\$ -	65	0	80	90
2022	12	11	\$ 0.26	\$ 1.31	55	12	80	90
2022	12	12	\$ -	\$ -	0	0	80	90
2022	12	13	\$ 1.93	\$ 1.10	20	4	80	90
2022	12	14	\$ -	\$ -	0	0	80	90
2022	12	15	\$ 1.69	\$ -	9	0	80	90
2022	12	16	\$ 1.23	\$ 1.58	16	18	80	90
2022	12	17	\$ 6.77	\$ 4.69	32	26	80	90
2022	12	18	\$ -	\$ 0.22	0	3	80	90
2022	12	19	\$ 0.38	\$ 1.63	7	22	80	90
2022	12	20	\$ 0.08	\$ -	15	0	80	90
2022	12	21	\$ 1.16	\$ -	9	0	80	90
2022	12	22	\$ -	\$ 1.46	0	57	80	90
2022	12	23	\$ 119.72	\$ 3.63	41	9	80	90
2022	12	24	\$ 0.01	\$ 3.48	7	87	80	90
2022	12	25	\$ 0.06	\$ 4.64	4	49	80	90
2022	12	26	\$ -	\$ -	0	0	80	90
2022	12	27	\$ -	\$ -	0	0	80	90
2022	12	28	\$ -	\$ -	0	0	80	90
2022	12	29	\$ -	\$ -	0	0	80	90
2022	12	30	\$ 0.01	\$ -	3	0	80	90
2022	12	31	\$ 0.26	\$ -	5	0	80	90

Monthly Average of Ancillary Services Required MW					
year	month	ASMW_REGDN	ASMW_NSPIN	ASMW_RRS	ASMW_REGUP
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	382	1,481	2,794	403
	6	327	1,527	2,548	343
	7	300	2,858	2,508	306
	8	322	3,835	2,530	328
	9	318	4,910	2,665	321
	10	318	4,880	2,908	330
	11	290	4,911	3,067	299
	12	280	4,914	2,951	296
2022	1	325	3,867	2,926	346
	2	388	4,267	2,950	372
	3	387	3,782	3,070	395
	4	372	4,069	3,014	373
	5	397	4,551	2,893	399
	6	339	4,197	2,694	372
	7	321	3,750	2,564	343
	8	347	3,592	2,572	348
	9	355	3,414	2,712	343
	10	327	4,404	2,893	343
	11	307	3,287	3,045	327
	12	318	3,687	3,030	351

**Hourly Average of Ancillary Services Required MW**

year	DELIVERY_HOUR	ASMW_REGDN	ASMW_NSPIN	ASMW_RRS	ASMW_REGUP
2021	1	359	2,840	2,905	208
	2	277	2,849	2,905	195
	3	235	2,918	2,939	208
	4	198	2,896	2,940	234
	5	198	2,866	2,940	294
	6	256	2,797	2,940	438
	7	221	3,082	2,816	548
	8	259	3,161	2,816	352
	9	358	3,144	2,816	359
	10	377	3,119	2,816	428
	11	357	2,972	2,716	474
	12	330	2,977	2,716	478
	13	306	2,989	2,716	456
	14	342	3,012	2,745	420
	15	328	2,911	2,803	403
	16	313	2,929	2,803	397
	17	334	2,917	2,803	418
	18	352	2,914	2,803	446
	19	404	3,013	2,832	368
	20	358	3,038	2,832	278
	21	378	3,052	2,832	225
	22	455	3,073	2,803	205
	23	471	2,847	2,905	199
	24	428	2,853	2,905	182
2022	1	364	3,535	2,910	219
	2	284	3,535	2,910	197
	3	241	3,483	2,942	206
	4	209	3,483	2,943	241
	5	208	3,483	2,943	297
	6	269	3,483	2,943	412
	7	232	4,067	2,832	526
	8	274	4,068	2,832	354
	9	411	4,068	2,832	367
	10	415	4,068	2,832	453
	11	425	4,195	2,745	490
	12	372	4,198	2,745	499
	13	339	4,235	2,745	479
	14	345	4,236	2,745	450
	15	359	4,086	2,872	432
	16	368	4,086	2,872	446
	17	377	4,086	2,872	497
	18	375	4,086	2,872	505
	19	393	3,875	2,876	424
	20	359	3,875	2,876	319
	21	389	3,875	2,876	241
	22	451	3,873	2,876	201
	23	468	3,860	2,910	198
	24	429	3,860	2,910	170

Monthly Average Ancillary Services Price					
year	month	MCPC_REGDN	MCPC_NSPIN	MCPC_RRS	MCPC_REGUP
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	\$ 25.78	\$ 3.45	\$ 20.49	\$ 19.60
	6	\$ 11.14	\$ 19.82	\$ 29.28	\$ 26.37
	7	\$ 6.66	\$ 20.88	\$ 19.92	\$ 19.94
	8	\$ 8.53	\$ 18.12	\$ 17.90	\$ 18.91
	9	\$ 9.89	\$ 15.91	\$ 18.39	\$ 19.54
	10	\$ 12.69	\$ 25.49	\$ 27.86	\$ 27.63
	11	\$ 14.74	\$ 14.39	\$ 20.28	\$ 19.93
	12	\$ 9.08	\$ 7.35	\$ 12.94	\$ 15.62
2022	1	\$ 6.15	\$ 5.07	\$ 8.39	\$ 11.56
	2	\$ 9.60	\$ 16.07	\$ 12.93	\$ 17.69
	3	\$ 17.94	\$ 12.43	\$ 18.67	\$ 22.69
	4	\$ 13.88	\$ 19.17	\$ 18.04	\$ 20.99
	5	\$ 18.03	\$ 51.85	\$ 31.29	\$ 38.71
	6	\$ 7.01	\$ 23.22	\$ 22.48	\$ 24.71
	7	\$ 9.52	\$ 54.81	\$ 61.26	\$ 72.27
	8	\$ 6.45	\$ 17.89	\$ 14.80	\$ 22.36
	9	\$ 6.93	\$ 9.67	\$ 7.32	\$ 12.85
	10	\$ 3.89	\$ 14.20	\$ 5.65	\$ 9.55
	11	\$ 3.63	\$ 9.58	\$ 4.19	\$ 8.53
	12	\$ 8.42	\$ 38.40	\$ 40.31	\$ 42.73

Monthly Average A/S Cost per MWh Load					
year	month	AScost_REGDN	AScost_NSPIN	AScost_RRS	AScost_REGUP
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	\$ 0.23	\$ 0.12	\$ 1.34	\$ 0.18
	6	\$ 0.07	\$ 0.58	\$ 1.44	\$ 0.17
	7	\$ 0.04	\$ 1.12	\$ 0.94	\$ 0.11
	8	\$ 0.05	\$ 1.25	\$ 0.81	\$ 0.11
	9	\$ 0.06	\$ 1.54	\$ 0.97	\$ 0.12
	10	\$ 0.09	\$ 2.83	\$ 1.85	\$ 0.21
	11	\$ 0.11	\$ 1.82	\$ 1.60	\$ 0.15
	12	\$ 0.06	\$ 0.89	\$ 0.94	\$ 0.11
2022	1	\$ 0.04	\$ 0.44	\$ 0.55	\$ 0.09
	2	\$ 0.08	\$ 1.47	\$ 0.82	\$ 0.14
	3	\$ 0.17	\$ 1.15	\$ 1.40	\$ 0.22
	4	\$ 0.12	\$ 1.82	\$ 1.27	\$ 0.18
	5	\$ 0.14	\$ 4.56	\$ 1.75	\$ 0.30
	6	\$ 0.04	\$ 1.67	\$ 1.04	\$ 0.16
	7	\$ 0.05	\$ 3.33	\$ 2.54	\$ 0.40
	8	\$ 0.04	\$ 1.11	\$ 0.66	\$ 0.13
	9	\$ 0.05	\$ 0.64	\$ 0.38	\$ 0.08
	10	\$ 0.03	\$ 1.45	\$ 0.38	\$ 0.08
	11	\$ 0.03	\$ 0.73	\$ 0.29	\$ 0.06
	12	\$ 0.06	\$ 3.12	\$ 2.69	\$ 0.33

ERCOT-wide Cumulative PNM			
year	month	pnm	pnm_accum
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	\$ 2,917.28	\$ 733,793.18
	6	\$ 10,048.24	\$ 743,841.42
	7	\$ 5,447.42	\$ 749,288.84
	8	\$ 3,062.97	\$ 752,351.81
	9	\$ 3,075.26	\$ 755,427.07
	10	\$ 5,596.65	\$ 761,023.72
	11	\$ 5,656.41	\$ 766,680.13
	12	\$ 2,293.71	\$ 768,973.84
2022	0	\$ -	\$ -
	1	\$ 2,245.58	\$ 2,245.58
	2	\$ 14,589.18	\$ 16,834.76
	3	\$ 4,492.68	\$ 21,327.44
	4	\$ 7,843.68	\$ 29,171.12
	5	\$ 25,120.79	\$ 54,291.91
	6	\$ 4,444.47	\$ 58,736.38
	7	\$ 61,835.52	\$ 120,571.90
	8	\$ 12,243.51	\$ 132,815.41
	9	\$ 4,218.01	\$ 137,033.42
	10	\$ 7,195.67	\$ 144,229.09
	11	\$ 5,637.30	\$ 149,866.39
	12	\$ 15,653.63	\$ 165,520.02



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
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	(410)	(586)	(665)	(468)	(489)	(422)
	6	(663)	622	645	(158)	(535)	78
	7	(383)	971	950	302	(501)	530
	8	106	1,519	1,062	247	32	627
	9	26	1,548	410	113	172	1,049
	10	25	872	154	52	80	435
	11	(208)	36	77	(72)	(98)	(166)
	12	(568)	(297)	180	(395)	256	135
2022	1	(408)	171	670	86	190	25
	2	(1,031)	155	689	(222)	(62)	442
	3	(897)	(126)	(168)	(643)	(588)	(395)
	4	(946)	302	(321)	(854)	(1,173)	(532)
	5	(1,877)	992	(191)	(1,445)	(1,812)	(395)
	6	(1,009)	1,448	1,149	(347)	(431)	530
	7	(532)	1,469	1,099	(137)	(403)	769
	8	(318)	1,551	1,167	279	(381)	650
	9	245	1,053	940	390	96	1,245
	10	245	1,496	331	247	368	1,351
	11	(204)	286	730	449	441	698
	12	(1,011)	428	278	(233)	(269)	229

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
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	13,861	10,718	12,533	14,784	11,494	10,984
	6	12,577	7,161	9,179	12,511	9,782	7,803
	7	9,833	5,215	7,223	9,405	7,174	5,318
	8	12,425	7,508	10,092	12,428	9,872	7,849
	9	13,114	6,136	7,634	12,472	10,567	7,265
	10	13,538	9,761	10,995	14,051	11,991	9,768
	11	14,149	9,423	10,265	13,841	13,372	10,657
	12	14,855	11,289	12,050	14,740	13,604	11,416
2022	1	13,020	9,623	9,868	12,555	13,127	10,415
	2	14,195	10,245	11,028	13,744	13,920	11,206
	3	16,027	13,581	13,844	15,591	16,250	14,236
	4	17,675	15,266	15,674	16,702	16,996	16,211
	5	19,060	14,380	16,476	18,635	17,225	15,650
	6	16,762	10,737	13,012	15,837	13,740	11,588
	7	15,609	7,947	11,386	14,680	12,513	9,484
	8	10,766	6,175	8,856	10,584	8,506	6,596
	9	11,017	5,597	6,896	10,717	8,643	5,946
	10	11,993	8,206	9,091	11,943	10,646	8,245
	11	13,853	11,574	12,093	14,140	12,744	10,994
	12	12,260	10,846	10,713	12,593	12,069	11,133

Monthly Average of Solar Generation by Hour Ending							
year	month	HE_1_4	HE_13_16	HE_17_20	HE_21_24	HE_5_8	HE_9_12
2021	1	0.1	2,874.3	675.2	0.1	1.9	2,183.9
	2	0.0	2,744.3	907.2	0.0	14.4	2,238.2
	3	0.1	3,498.4	2,090.3	1.0	31.5	2,789.9
	4	0.1	3,503.1	2,227.9	2.9	25.0	2,446.2
	5	0.2	4,561.7	3,102.7	22.2	114.1	3,164.8
	6	0.8	5,234.2	3,928.8	66.7	208.8	4,266.6
	7	1.2	5,642.7	4,283.9	71.3	147.5	4,599.8
	8	0.3	5,492.5	3,554.1	12.0	62.2	4,435.3
	9	0.1	6,004.6	3,516.7	0.1	20.4	4,862.2
	10	4.5	5,126.9	2,547.7	4.5	3.3	3,739.5
	11	0.2	4,761.4	1,018.1	0.3	64.7	4,003.0
	12	0.2	4,083.3	704.9	0.2	9.6	3,396.1
2022	1	3.3	5,290.8	1,314.4	3.4	9.3	4,155.3
	2	0.5	5,882.4	2,034.5	0.6	45.8	4,746.8
	3	0.2	5,974.1	3,214.2	0.2	69.8	5,067.0
	4	3.3	6,315.0	4,406.9	16.0	69.2	4,384.8
	5	2.0	7,466.6	5,237.1	43.8	260.4	5,834.7
	6	0.6	8,347.9	6,137.0	88.6	438.8	7,273.4
	7	0.1	8,789.3	6,477.1	92.3	363.2	7,994.0
	8	1.3	7,657.8	4,939.1	24.1	135.2	6,424.0
	9	0.1	8,755.9	5,124.3	1.0	53.3	7,079.6
	10	0.2	7,459.7	3,272.7	1.4	11.9	5,665.5
	11	0.2	5,213.3	951.1	2.1	82.4	4,370.7
	12	0.3	4,609.4	726.6	0.4	21.8	4,084.6

RT Congestion Constraint Rankings - Top 10 Constraints by Binding Frequency and Top 10 Constraints by Total Congestion Rent																
CATEGORY	YEAR	CONSTRAINT	RANKVAR	RANK	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
FREQ_EXIST	2022	NORTH EDINBURG LOBO GTC (NE_LOB)	22371	1	2040	2071	2855	2745	4082	2197	2447	1556	51	1031	612	684
FREQ_EXIST	2022	NELSON SHARPE RIO HONDO GTC (NELRIO)	16166	2	1256	755	2156	3044	3560	1619	2136	1230	0	163	240	7
FREQ_EXIST	2022	BURNS RIOHONDO 1 (RIOHONDO-MV_BURNS)	12985	3	280	592	2245	3279	1667	841	1619	410	0	787	804	461
FREQ_EXIST	2022	WEST TEXAS EXPORT GTC (WESTEX)	11848	4	950	618	507	3167	1603	917	40	119	87	1101	2017	722
FREQ_EXIST	2022	HAMILT MAVERI1 1 (HAMILTON-MAVERICK)	10427	5	162	376	1359	2048	1254	224	323	88	193	633	2139	1628
FREQ_EXIST	2022	PANHANDLE GTC (PNHNDL)	9530	6	182	230	18	2040	2334	906	0	0	524	815	1323	1158
FREQ_EXIST	2022	LASPUL_RAYMND1 1 (LASPULGA-RAYMND2)	7838	7	40	125	1454	2258	2092	388	893	387	0	48	150	3
FREQ_EXIST	2022	651_B (CMNSW-CMNTF)	7468	8	500	537	898	1982	844	793	170	282	149	0	176	1137
FREQ_EXIST	2022	G138_10B_1 (SEMINOLE-MAGNO_TN)	7204	9	120	226	703	3481	879	1135	41	0	0	332	277	10
FREQ_EXIST	2022	BEARKAT GTC (BEARKT)	7059	10	0	240	0	2249	1098	0	0	0	0	1174	0	2298
TOP10_RENT	2022	WEST TEXAS EXPORT GTC (WESTEX)	\$ 304.18	1	\$ 17.32	\$ 8.97	\$ 6.98	\$ 88.01	\$ 57.18	\$ 37.91	\$ 0.73	\$ 4.03	\$ 1.47	\$ 28.05	\$ 41.61	#####
TOP10_RENT	2022	JEWET-SNG LINES (JEWET-SNG)	\$ 170.17	2	\$ -	\$ -	\$ -	\$ 0.04	\$ 136.25	\$ 33.70	\$ 0.00	\$ 0.15	\$ 0.03	\$ -	\$ -	\$ -
TOP10_RENT	2022	NORTH EDINBURG LOBO GTC (NE_LOB)	\$ 115.61	3	\$ 6.50	\$ 5.42	\$ 12.38	\$ 12.92	\$ 27.32	\$ 15.61	\$ 17.46	\$ 10.08	\$ 0.32	\$ 3.66	\$ 2.15	\$1.80
TOP10_RENT	2022	PAWNEE SPRUCE 1 (PAWNEE-CALAVERS)	\$ 98.77	4	\$ 0.07	\$ -	\$ -	\$ -	\$ 2.71	\$ 0.10	\$ 52.84	\$ 16.77	\$ 0.11	\$ 0.69	\$ 3.76	#####
TOP10_RENT	2022	KLNSW_XFMRS (KLNSW-KLNSW)	\$ 98.24	5	\$ 7.00	\$ 7.77	\$ 43.13	\$ 7.47	\$ 32.88	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2022	CKT_3124_1 (STP-HLJ)	\$ 80.97	6	\$ -	\$ 15.25	\$ 17.63	\$ 1.28	\$ 46.80	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2022	PANHANDLE GTC (PNHNDL)	\$ 76.80	7	\$ 0.52	\$ 0.94	\$ 0.08	\$ 12.75	\$ 23.31	\$ 7.88	\$ -	\$ -	\$ 7.16	\$ 3.99	\$ 9.81	#####
TOP10_RENT	2022	NORTH TO HOUSTON GTC (N_TO_H)	\$ 76.78	8	\$ -	\$ -	\$ -	\$ 0.61	\$ 73.04	\$ 0.07	\$ -	\$ -	\$ -	\$ 0.15	\$ 2.86	\$0.04
TOP10_RENT	2022	6462_C (MCNSW-MKNGB)	\$ 69.75	9	\$ -	\$ -	\$ -	\$ 0.49	\$ 32.66	\$ 11.11	\$ 16.54	\$ 8.96	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2022	BURNS RIOHONDO 1 (RIOHONDO-MV_BURNS)	\$ 66.81	10	\$ 1.26	\$ 2.09	\$ 7.94	\$ 11.13	\$ 10.28	\$ 6.42	\$ 13.31	\$ 2.50	\$ -	\$ 4.32	\$ 5.83	\$1.74

MONTH	RENT TOTAL
1	108.54
2	131.29
3	237.76
4	382.41
5	701.20
6	250.92
7	294.75
8	81.49
9	57.08
10	112.34
11	164.13
12	294.11
Sum-Total	2816.03

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	2022	6144_A (BSPRW-STASW)	4,550	1	59	66	243	433	487	521	470	497	458	380	443	493
FREQ_EXIST	2022	G138_10B_1 (SEMINOLE-MAGNO_TN)	3,665	2	205	192	404	697	606	517	107	23	63	275	331	245
FREQ_EXIST	2022	NORTH EDINBURG LOBO GTC (NE_LOB)	3,396	3	262	262	436	405	509	374	372	242	49	186	150	149
FREQ_EXIST	2022	HAMILT_MAVERI1_1 (HAMILTON-MAVERICK)	3,274	4	172	96	266	458	350	229	297	278	348	260	291	229
FREQ_EXIST	2022	LPLMK_LPLNE_1 (LPLMK-LPLNE)	2,950	5	251	194	35	139	197	193	191	59	362	559	470	300
FREQ_EXIST	2022	BRUNI_69_1 (BRUNI-BRUNI)	2,808	6	227	125	210	312	326	263	389	370	70	174	182	160
FREQ_EXIST	2022	BURNS RIOHONDO_1 (RIOHONDO-MV_BURNS)	2,764	7	158	160	293	430	403	212	295	156	17	146	263	231
FREQ_EXIST	2022	PRTLAVS_T1 (PRTLAVS-PRTLAVS)	2,732	8	86	182	108	202	295	245	512	284	226	158	148	286
FREQ_EXIST	2022	PUEBLO_XFMRS (PUEBLO-PUEBLO)	2,723	9	105	173	332	302	163	167	322	198	228	136	186	411
FREQ_EXIST	2022	BISON_STRS1_1 (BISON-STRS)	2,654	10	104	123	378	317	297	208	100	143	298	348	275	63
TOP10_RENT	2022	WEST EXPORT GTC (WESTEX)	\$ 243.88	1	\$ 12.11	\$ 8.42	\$ 13.08	\$ 59.40	\$ 41.34	\$ 24.11	\$ 0.94	\$ 1.27	\$ 1.85	\$ 25.87	\$ 39.74	#####
TOP10_RENT	2022	JEWET-SNG LINES (JEWET-SNG)	\$ 131.90	2	\$ -	\$ -	\$ 0.08	\$ 0.04	\$ 84.02	\$ 46.56	\$ 0.25	\$ 0.62	\$ 0.34	\$ -	\$ -	\$ -
TOP10_RENT	2022	NORTH EDINBURG LOBO GTC (NE_LOB)	\$ 107.11	3	\$ 6.96	\$ 5.11	\$ 11.10	\$ 11.39	\$ 22.27	\$ 17.21	\$ 13.17	\$ 9.25	\$ 0.33	\$ 4.33	\$ 3.06	\$ 2.93
TOP10_RENT	2022	G138_10B_1 (SEMINOLE-MAGNO_TN)	\$ 89.17	4	\$ 0.85	\$ 0.98	\$ 4.66	\$ 31.20	\$ 24.53	\$ 15.83	\$ 0.53	\$ 0.06	\$ 0.27	\$ 3.22	\$ 5.14	\$ 1.91
TOP10_RENT	2022	KLNSW_XFMRS (KLNSW-KLNSW)	\$ 88.64	5	\$ 4.79	\$ 8.24	\$ 34.77	\$ 15.27	\$ 25.58	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2022	PANHANDLE GTC (PNHNDL)	\$ 66.40	6	\$ 0.07	\$ -	\$ 0.27	\$ 11.37	\$ 18.02	\$ 9.50	\$ -	\$ -	\$ 5.96	\$ 3.28	\$ 10.05	\$ 7.88
TOP10_RENT	2022	BURNS RIOHONDO_1 (RIOHONDO-MV_BURNS)	\$ 60.06	7	\$ 1.95	\$ 1.81	\$ 4.33	\$ 9.99	\$ 12.75	\$ 5.40	\$ 10.38	\$ 2.66	\$ 0.15	\$ 2.57	\$ 4.39	\$ 3.67
TOP10_RENT	2022	CKT_3124_1 (STP-HLJ)	\$ 59.60	8	\$ 0.04	\$ 11.02	\$ 14.99	\$ 2.26	\$ 24.75	\$ 1.57	\$ 3.34	\$ 0.00	\$ -	\$ 0.02	\$ 1.40	\$ 0.21
TOP10_RENT	2022	6462_C (MCNSW-MKNGB)	\$ 57.93	9	\$ -	\$ -	\$ 0.09	\$ 0.03	\$ 17.73	\$ 13.96	\$ 17.17	\$ 8.34	\$ 0.59	\$ -	\$ -	\$ -
TOP10_RENT	2022	PAWNEE_SPRUCE_1 (PAWNEE-CALAVERS)	\$ 54.11	10	\$ -	\$ -	\$ -	\$ -	\$ 0.12	\$ 0.18	\$ 20.27	\$ 18.00	\$ 0.00	\$ 2.34	\$ 6.12	\$ 7.07

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	2022	HB WEST-LZ WEST	\$ 45.67	1	\$ 1.74	\$ 1.33	\$ 1.83	\$ 2.21	\$ 4.74	\$ 6.66	\$ 6.37	\$ 4.13	\$ 6.35	\$ 4.84	\$ 3.77	\$ 1.71		
N	2022	HB NORTH-HB HOUSTON	\$ 45.42	2	\$ 0.29	\$ 0.41	\$ 2.10	\$ 2.13	\$ 6.34	\$ 15.09	\$ 4.67	\$ 3.27	\$ 2.97	\$ 4.68	\$ 2.49	\$ 0.97		
N	2022	HB WEST-HB NORTH	\$ 29.27	3	\$ 0.39	\$ 1.23	\$ 0.97	\$ 3.67	\$ 7.02	\$ 5.58	\$ 0.51	\$ 0.22	\$ 3.41	\$ 3.39	\$ 1.25	\$ 1.63		
N	2022	HB SOUTH-LZ SOUTH	\$ 14.75	4	\$ 1.15	\$ 0.60	\$ 0.97	\$ 1.71	\$ 1.20	\$ 2.70	\$ 1.94	\$ 1.31	\$ 1.16	\$ 0.93	\$ 0.89	\$ 0.19		
N	2022	HB NORTH-LZ NORTH	\$ 14.66	5	\$ 0.59	\$ 0.69	\$ 0.89	\$ 0.73	\$ 1.20	\$ 2.28	\$ 2.46	\$ 2.98	\$ 1.00	\$ 0.94	\$ 0.64	\$ 0.26		
N	2022	HB HOUSTON-LZ HOUSTON	\$ 12.84	6	\$ 0.37	\$ 0.38	\$ 0.65	\$ 0.99	\$ 2.25	\$ 2.74	\$ 2.08	\$ 0.85	\$ 0.85	\$ 0.61	\$ 0.54	\$ 0.52		
N	2022	HB SOUTH-HB NORTH	\$ 7.41	7	\$ 0.28	\$ 0.29	\$ 0.29	\$ 2.21	\$ 0.45	\$ 0.81	\$ 0.05	\$ 1.34	\$ 0.28	\$ 0.55	\$ 0.64	\$ 0.22		
N	2022	HB SOUTH-LZ LCRA	\$ 6.37	8	\$ 0.03	\$ 0.12	\$ 0.06	\$ 0.13	\$ 0.58	\$ 1.31	\$ 0.92	\$ 0.63	\$ 1.13	\$ 0.80	\$ 0.41	\$ 0.28		
N	2022	COL COLETG1-HB SOUTH	\$ 5.97	9	\$ 0.55	\$ 0.70	\$ 0.52	\$ 0.58	\$ 0.24	\$ 0.11	\$ 0.29	\$ 0.53	\$ 1.06	\$ 0.62	\$ 0.33	\$ 0.42		
N	2022	CPSSES_UNIT2-HB NORTH	\$ 5.03	10	\$ 0.69	\$ 0.55	\$ 0.31	\$ 1.01	\$ 0.45	\$ 0.33	\$ 0.15	\$ 0.16	\$ 0.32	\$ 0.61	\$ 0.29	\$ 0.17		
Y	2022	HB WEST-LZ WEST	\$ 8.76	1	\$ 0.19	\$ 0.22	\$ 0.21	\$ 0.31	\$ 0.95	\$ 1.20	\$ 0.67	\$ 0.40	\$ 2.33	\$ 2.00	\$ 0.15	\$ 0.14		
Y	2022	HB SOUTH-LZ SOUTH	\$ 6.42	2	\$ 0.24	\$ 0.25	\$ 0.44	\$ 0.69	\$ 0.61	\$ 0.92	\$ 0.96	\$ 1.10	\$ 0.10	\$ 0.63	\$ 0.36	\$ 0.13		
Y	2022	HB NORTH-LZ NORTH	\$ 6.06	3	\$ 0.70	\$ 0.16	\$ 0.09	\$ 0.25	\$ 0.29	\$ 0.66	\$ 1.11	\$ 0.40	\$ 0.54	\$ 0.60	\$ 0.84	\$ 0.44		
Y	2022	ANCHOR ALL-JCKCNTY2 CT3	\$ 4.03	4	\$ -	\$ -	\$ 0.35	\$ 0.00	\$ 0.99	\$ 1.91	\$ 0.35	\$ 0.12	\$ 0.14	\$ 0.13	\$ 0.04	\$ 0.01		
Y	2022	HB WEST-HB NORTH	\$ 3.68	5	\$ 0.43	\$ 0.47	\$ 0.15	\$ 0.22	\$ 0.55	\$ 0.86	\$ 0.03	\$ 0.14	\$ 0.18	\$ 0.12	\$ 0.18	\$ 0.36		
Y	2022	HB NORTH-HB HOUSTON	\$ 3.57	6	\$ 0.05	\$ 0.02	\$ 0.01	\$ 0.01	\$ 0.01	\$ 1.05	\$ 0.42	\$ 0.13	\$ 0.31	\$ 1.04	\$ 0.30	\$ 0.22		
Y	2022	HB HOUSTON-LZ HOUSTON	\$ 3.30	7	\$ 0.03	\$ 0.04	\$ 0.21	\$ 0.26	\$ 0.27	\$ 0.83	\$ 0.63	\$ 0.26	\$ 0.29	\$ 0.27	\$ 0.11	\$ 0.10		
Y	2022	CALAVER_JKS2-LZ CPS	\$ 2.91	8	\$ 0.20	\$ 0.08	\$ 0.00	\$ 0.14	\$ 0.21	\$ 0.00	\$ 0.41	\$ 0.51	\$ 0.49	\$ 0.74	\$ 0.02	\$ 0.11		
Y	2022	HB PAN-HB WEST	\$ 2.79	9	\$ 0.06	\$ 0.04	\$ 0.08	\$ 0.26	\$ 0.52	\$ 0.24	\$ 0.13	\$ 0.06	\$ 0.36	\$ 0.35	\$ 0.48	\$ 0.22		
Y	2022	TORR_ALL-HB SOUTH	\$ 2.77	10	\$ 0.52	\$ 0.53	\$ 0.32	\$ 0.00	\$ 0.29	\$ 0.37	\$ 0.25	\$ 0.11	\$ 0.16	\$ 0.18	\$ 0.03	\$ 0.02		