

To the Public Utility Commission of Texas

ERCOT Wholesale Electricity Market Monthly Report

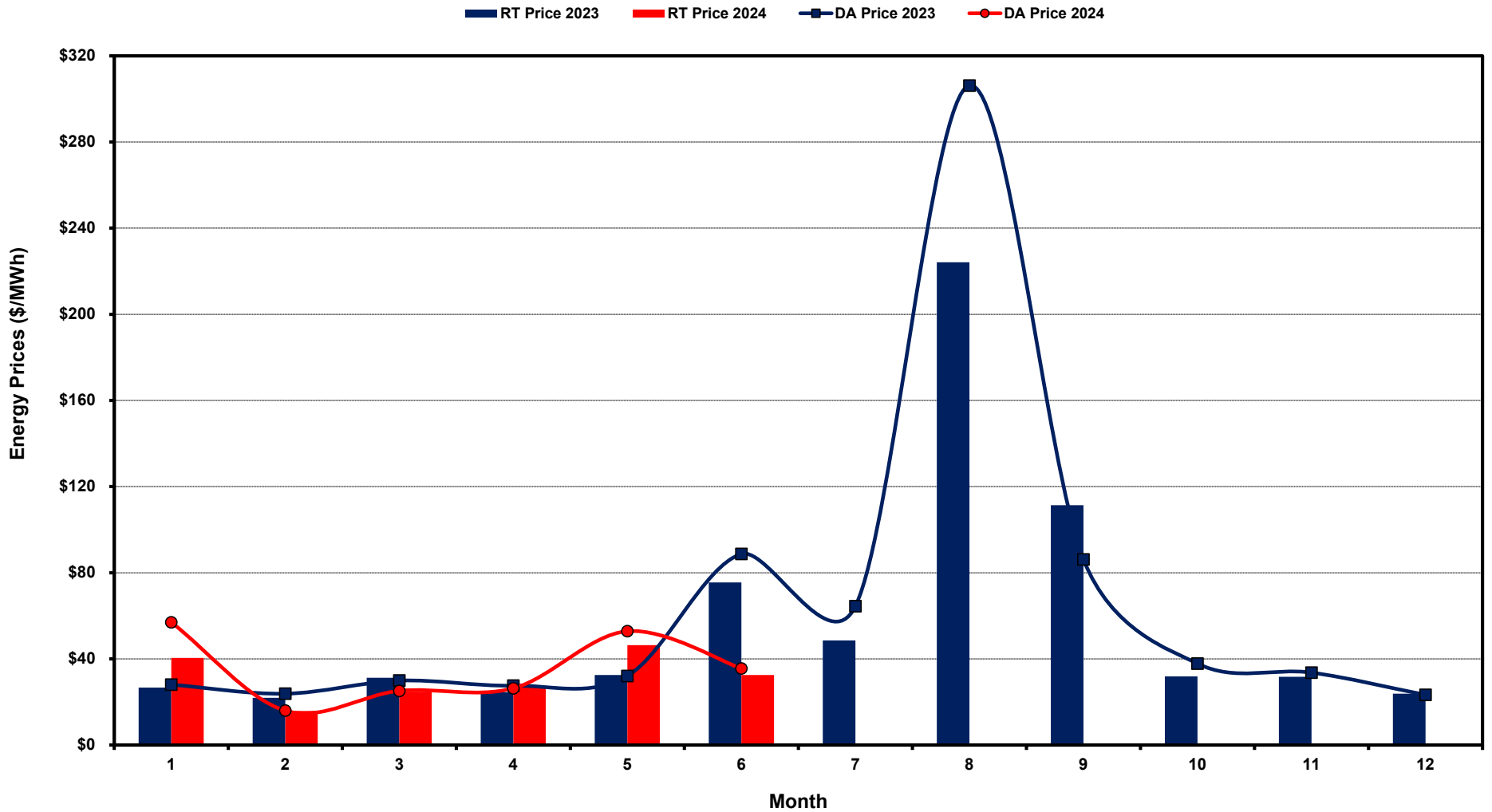
Wednesday, July 10, 2024

Potomac Economics, Ltd.
Independent Market Monitor

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

ERCOT-wide Average Energy Prices DA vs RT

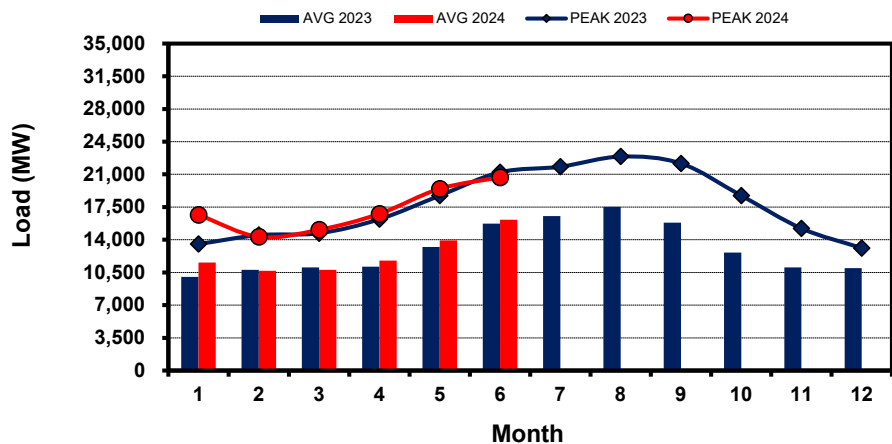
(avg. DA & RT SPPs weighted by Real Time Settlement Loads)



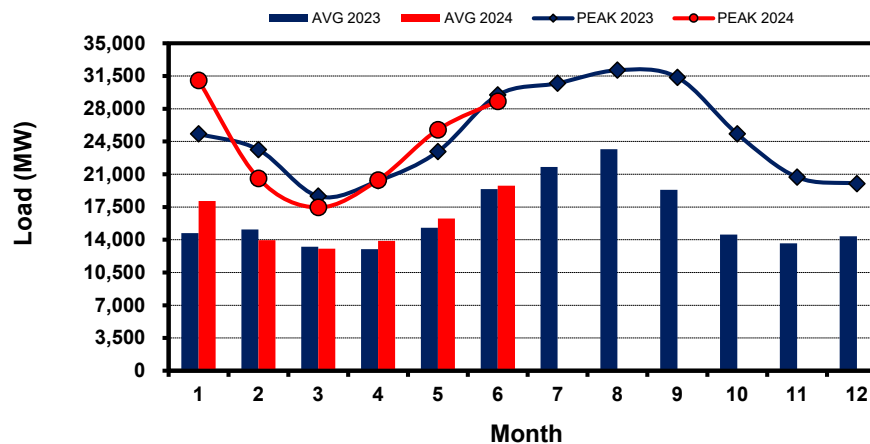
Load Zone Load Statistics

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

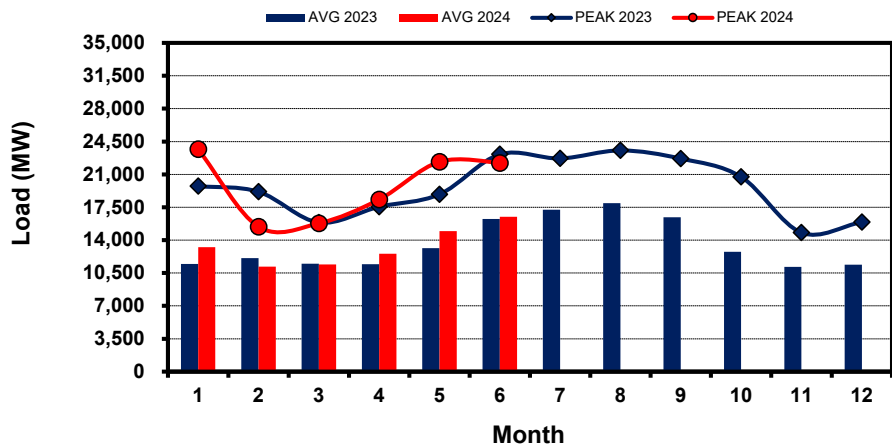
Houston Zone



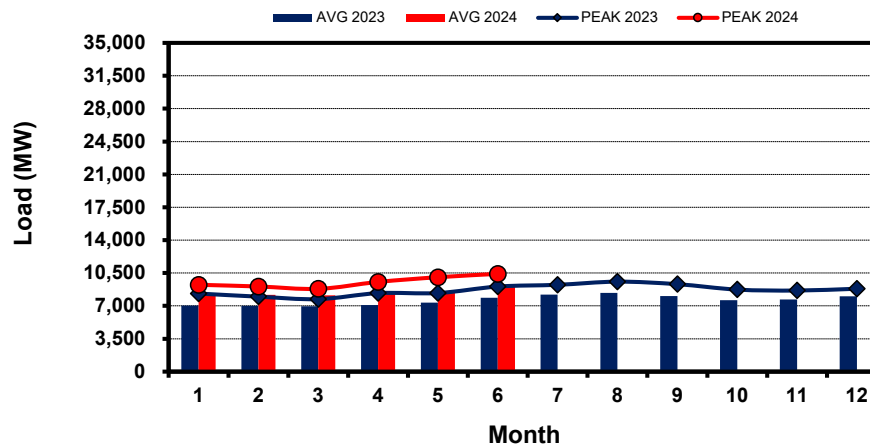
North Zone



South Zone



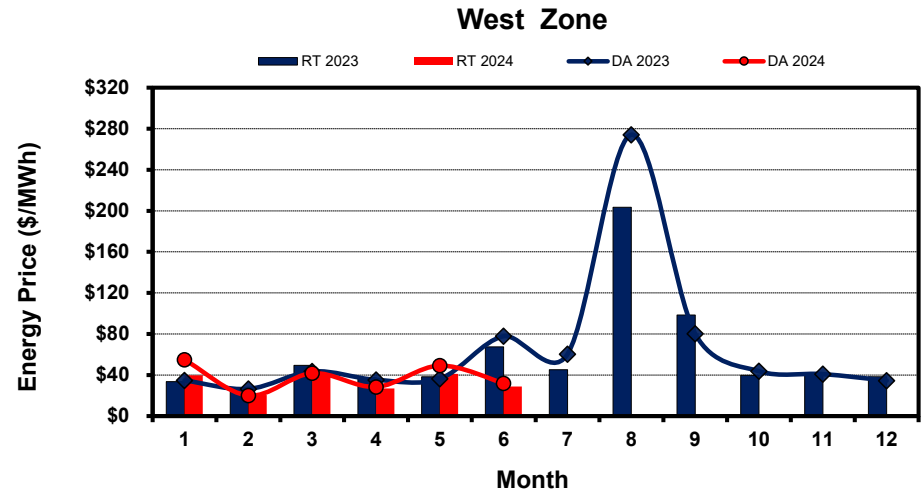
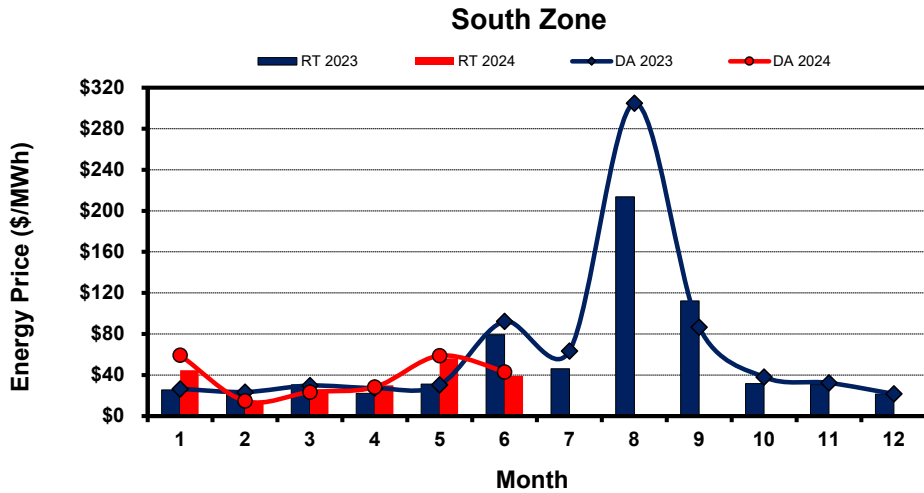
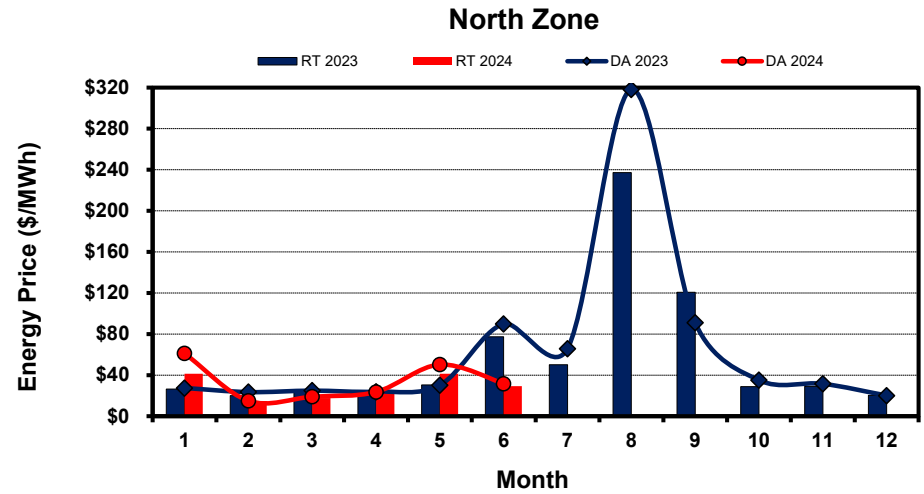
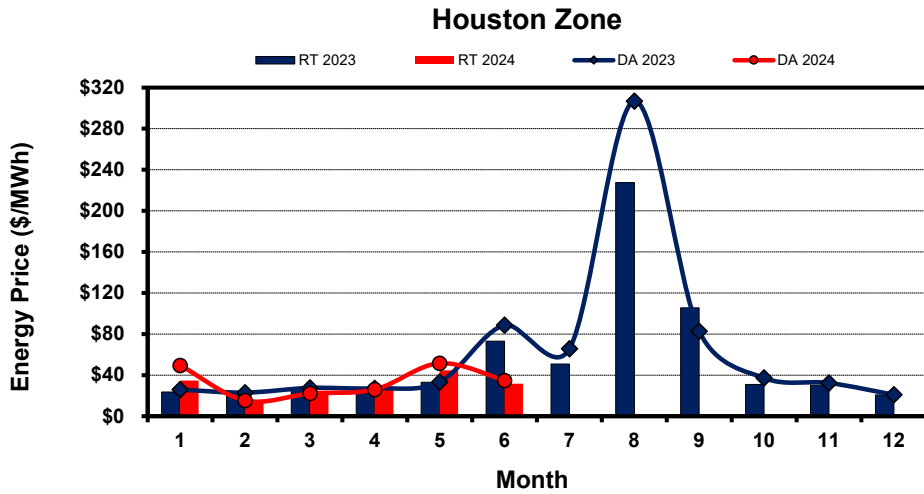
West Zone



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

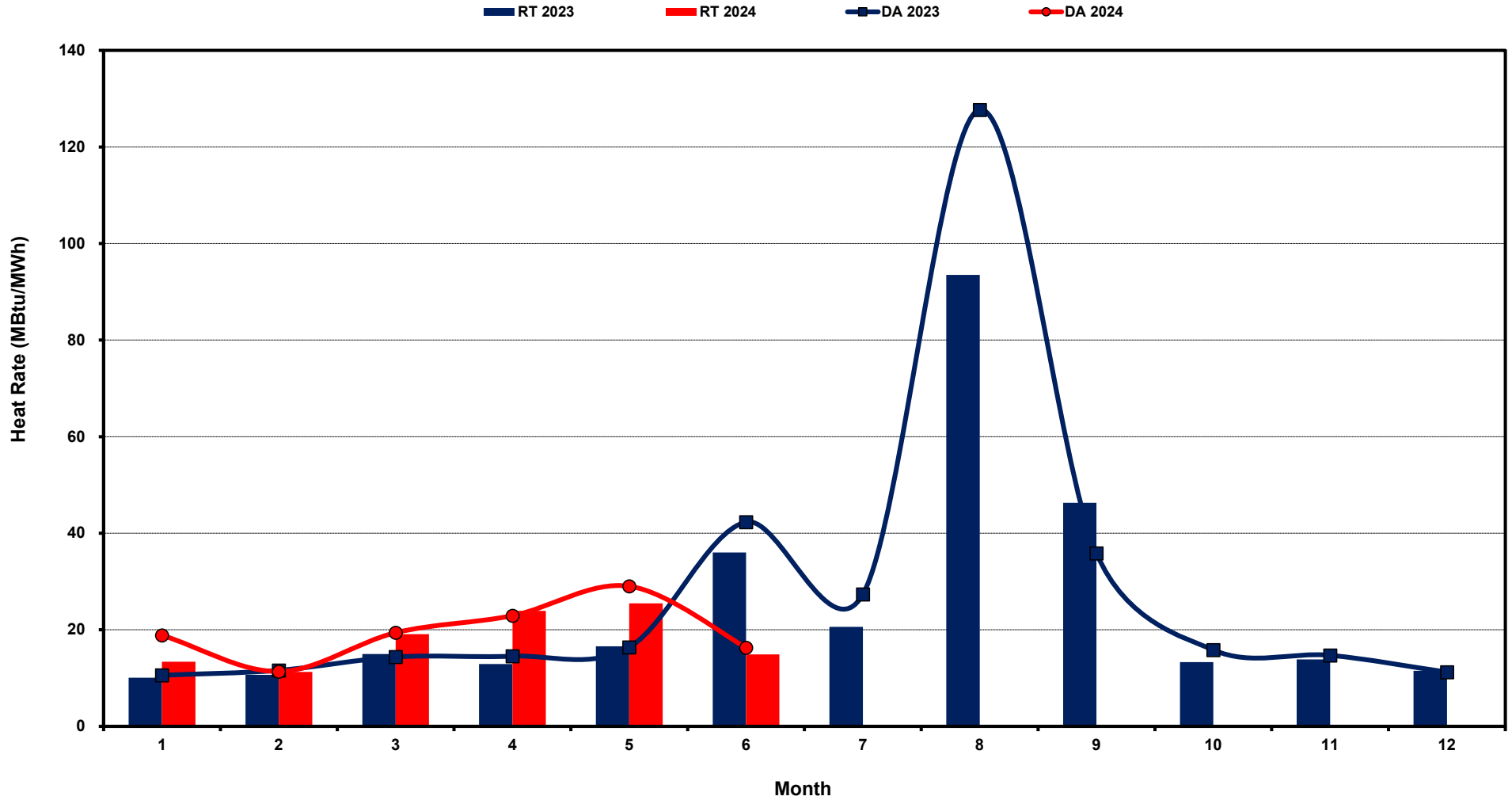
(avg. DA & RT SPPs weighted by Real Time Settlement Loads)
 (Nodal load zone made comparable to zonal sytem Load Zone definitions*)



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)

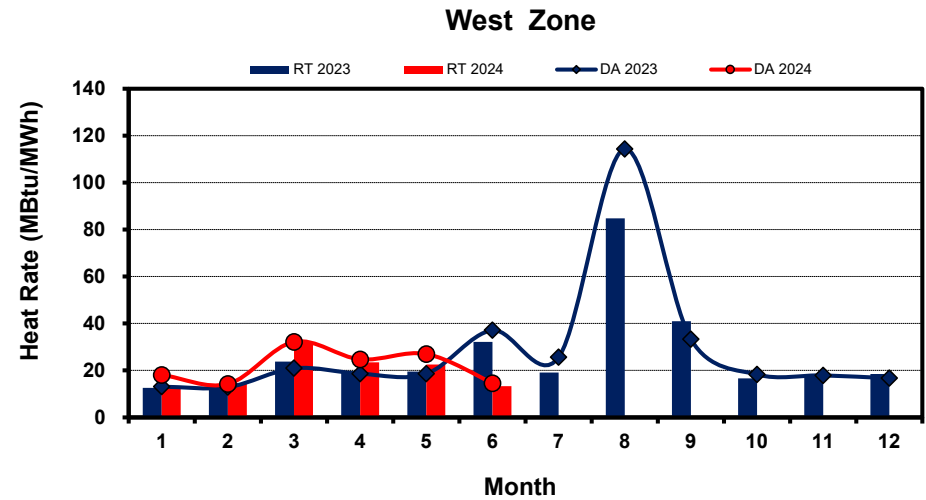
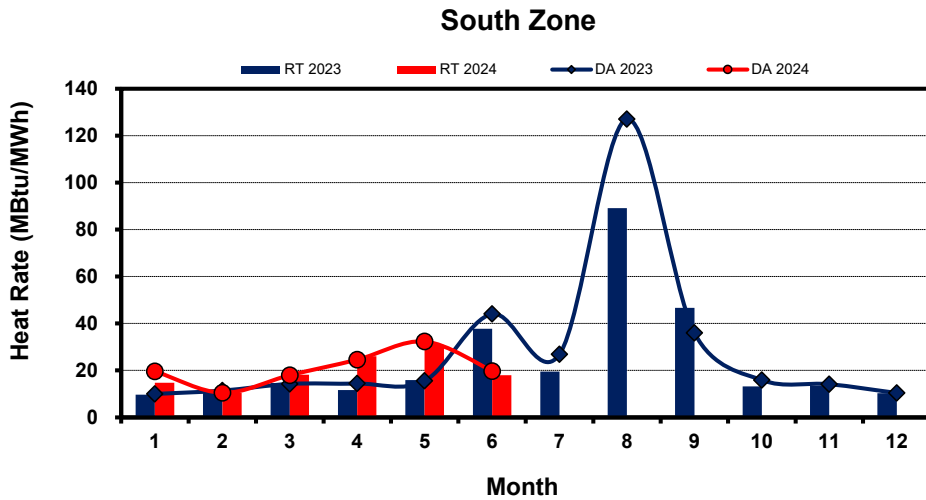
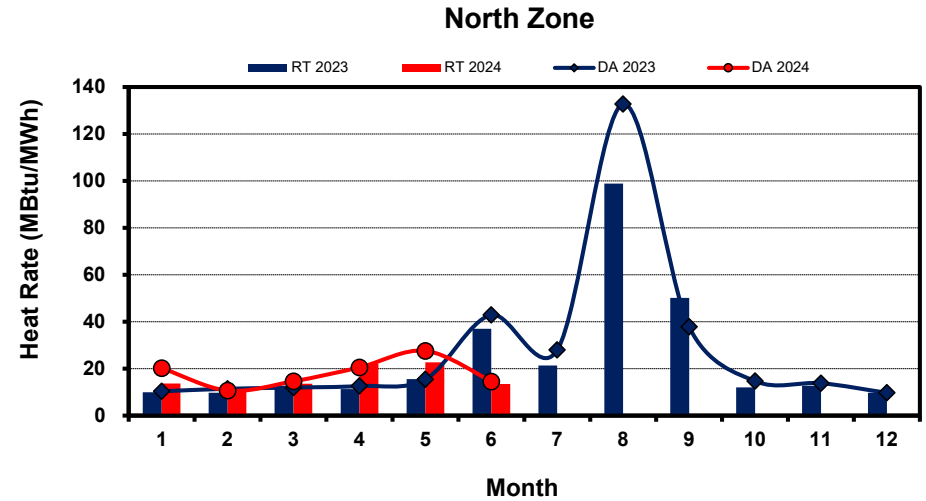
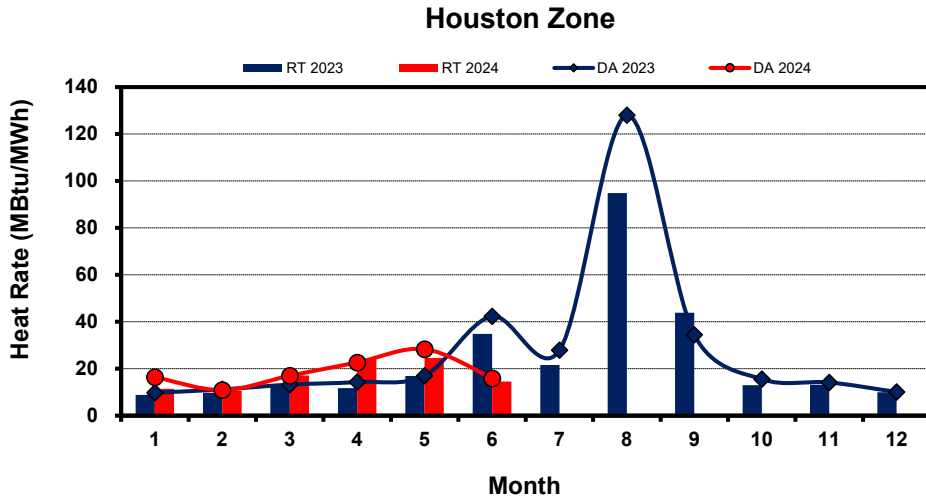
ERCOT-wide Monthly Implied Heat Rate DA vs RT

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



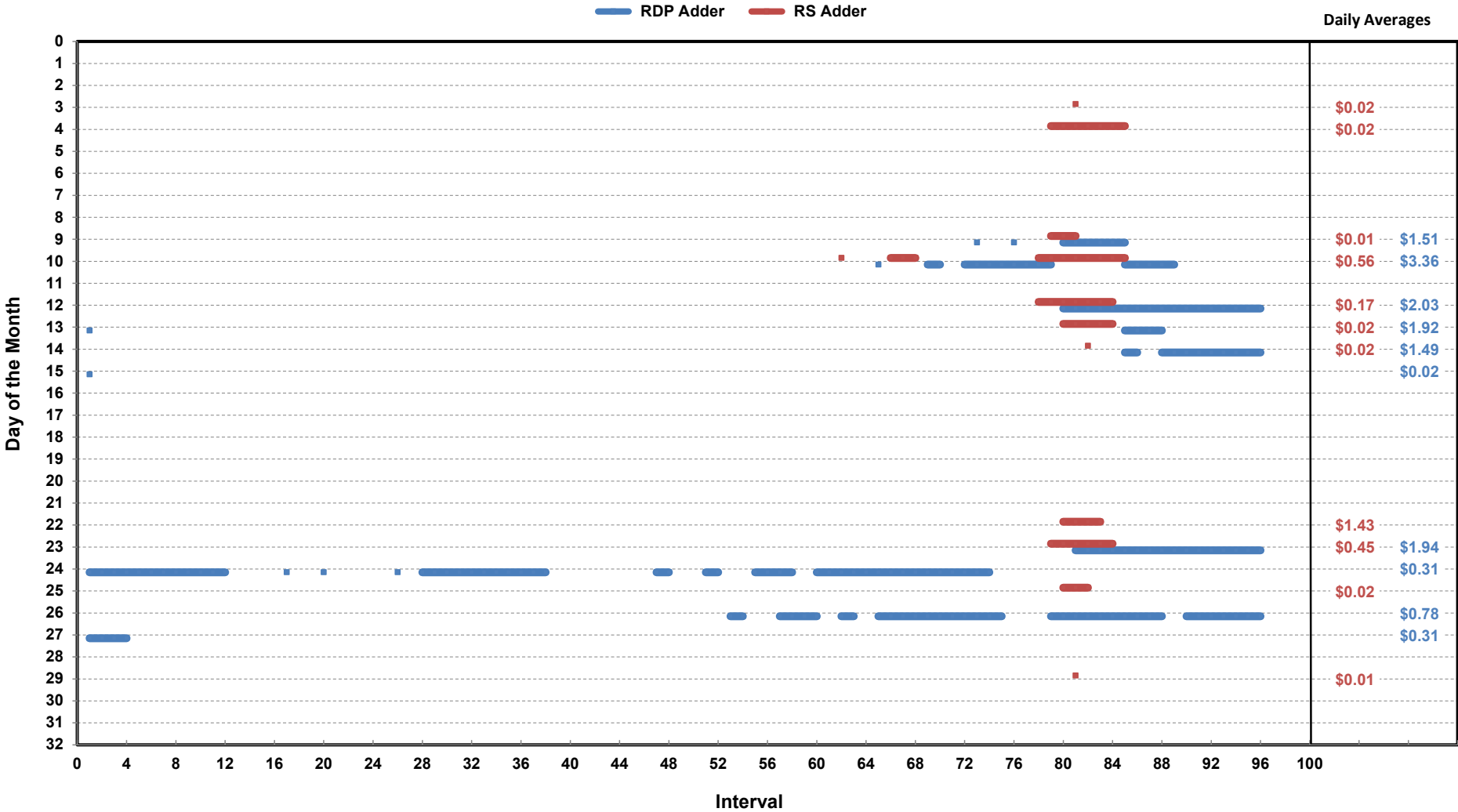
Load Zone Monthly Implied Heat Rate DA vs RT

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

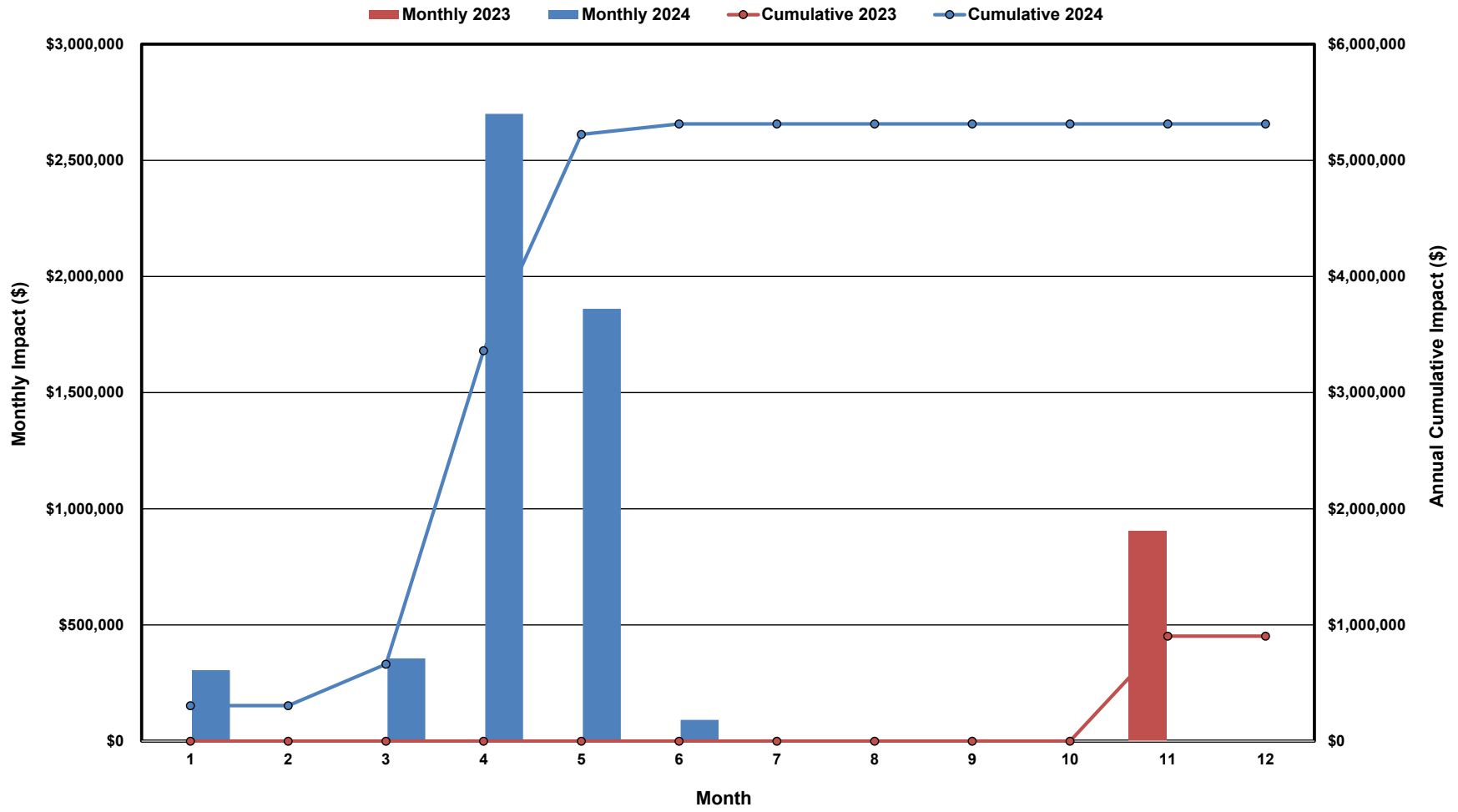


Note: * Zonal load zone definition vs. Nodal comparable load zone definition: LZ_Houston=LZ_Houston; LZ_West=LZ_West; LZ_North=(LZ_North,LZ_RAYBN); LZ_South=(LZ_South,LZ_CPS,LZ_AEN,LZ_LCRA)

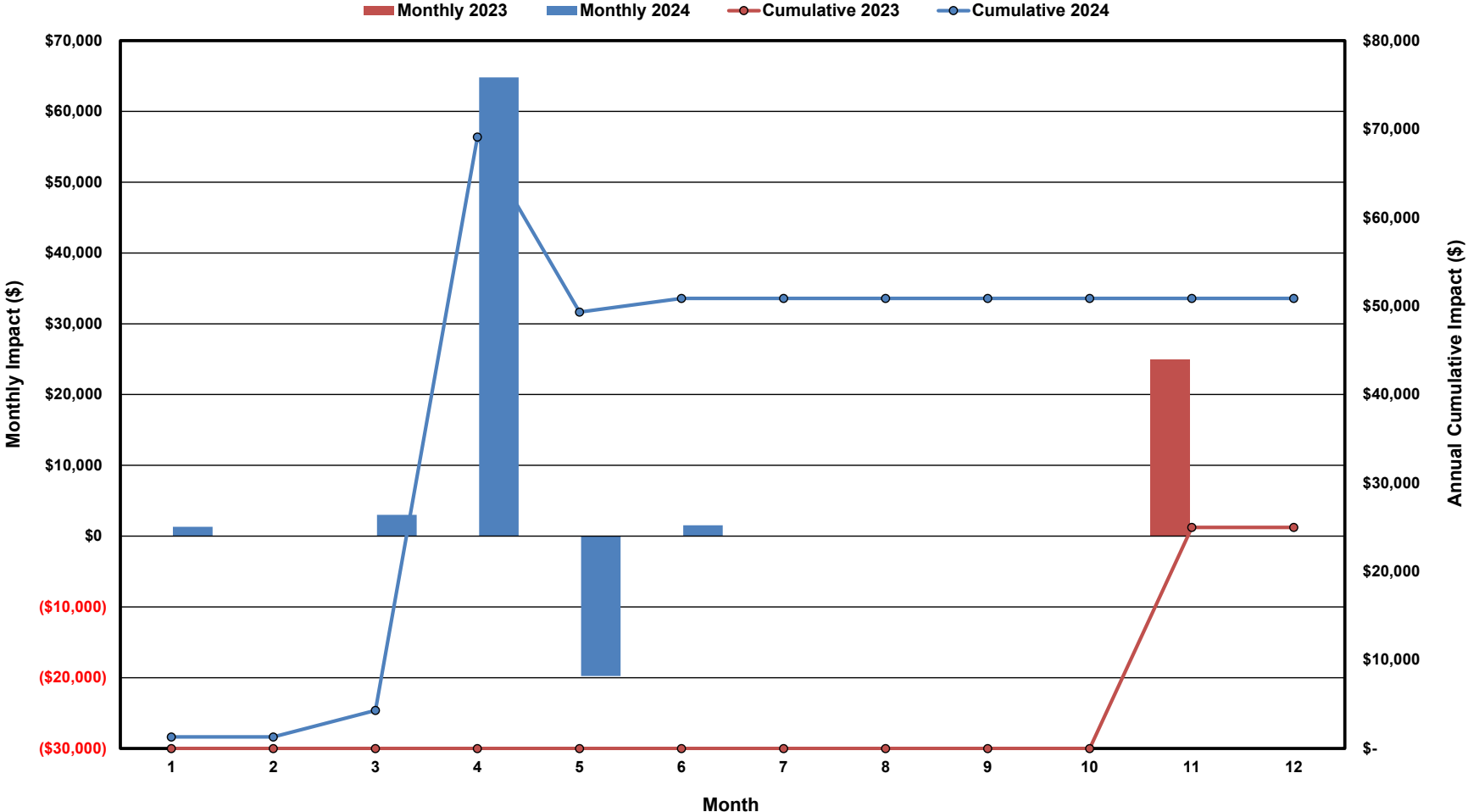
Daily ORDC Adders Average Values and Interval Duration Jun-2024



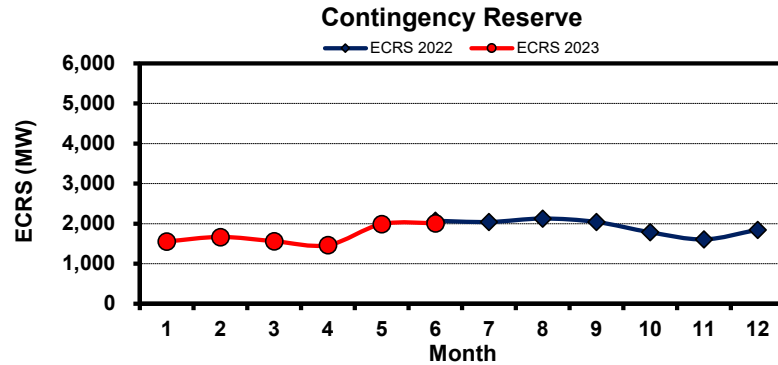
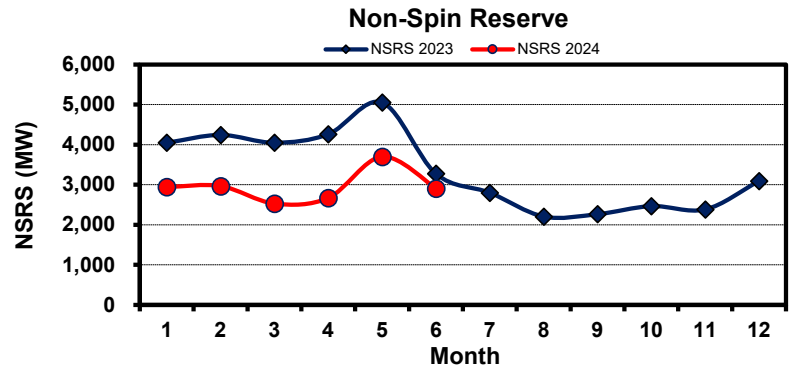
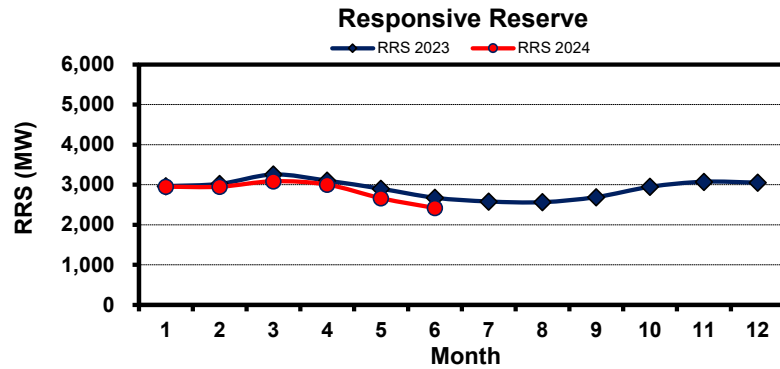
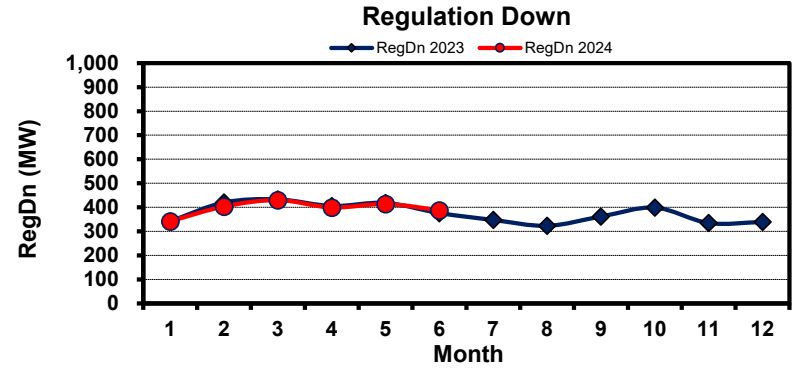
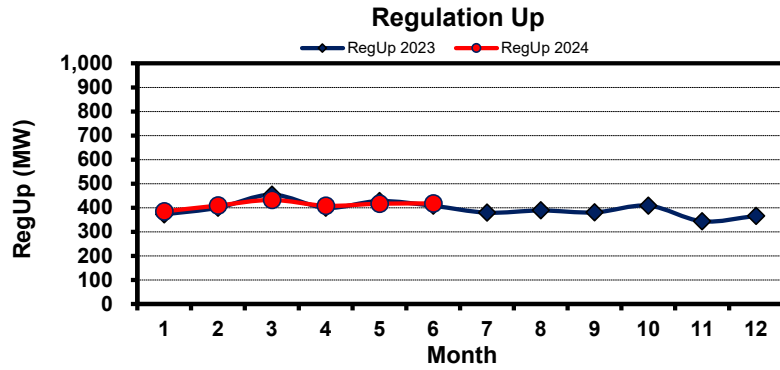
Monthly Total Impacts on Energy Cost from ORDC RS Adder Floors



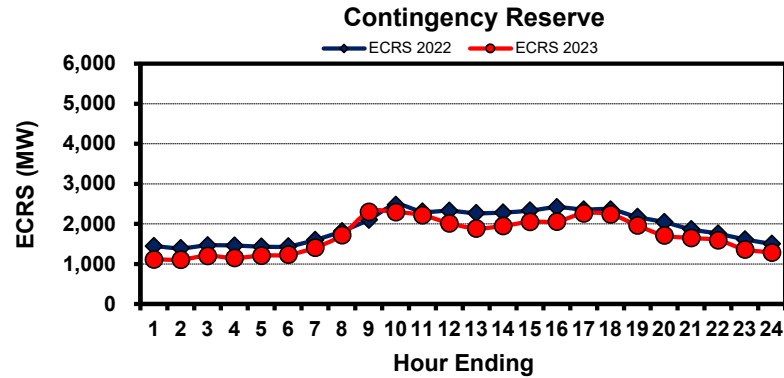
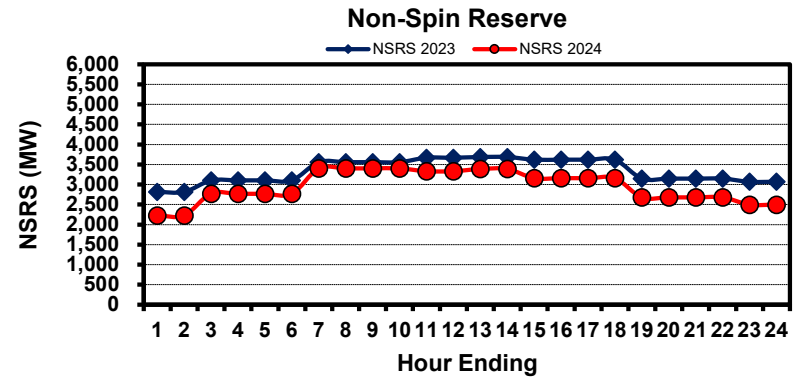
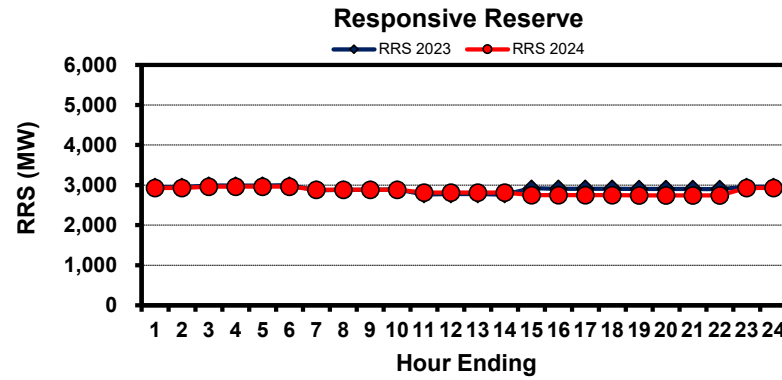
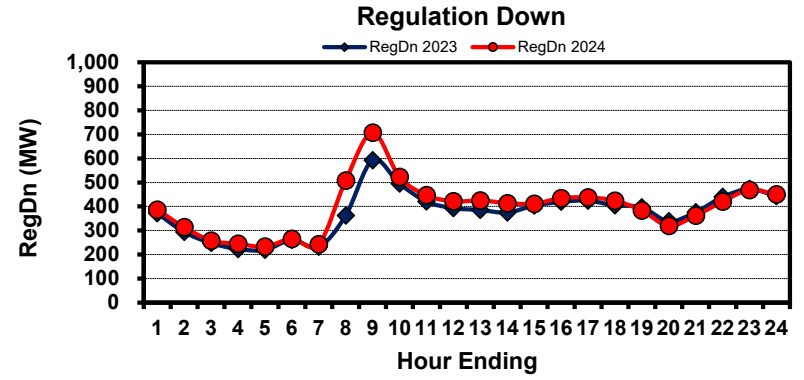
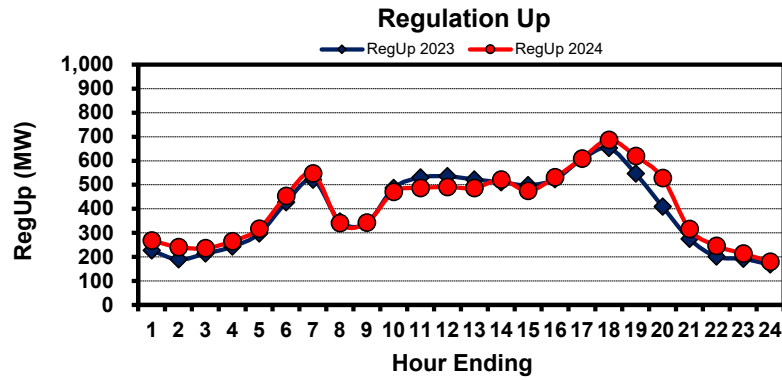
Monthly Total Impacts on A/S Imbalance from ORDC RS Adder Floors



Monthly Average of Ancillary Services Required MW

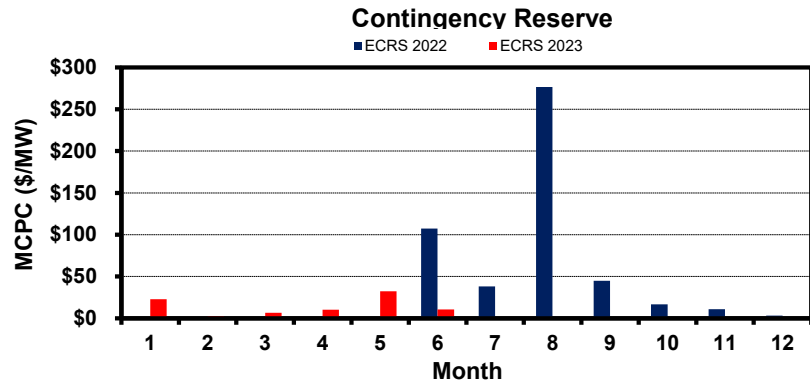
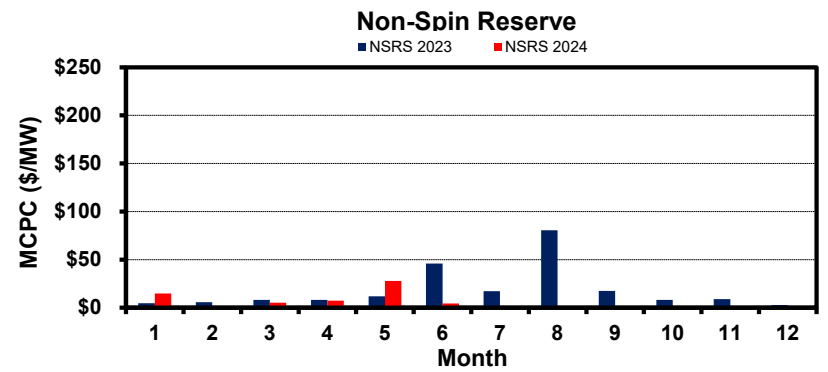
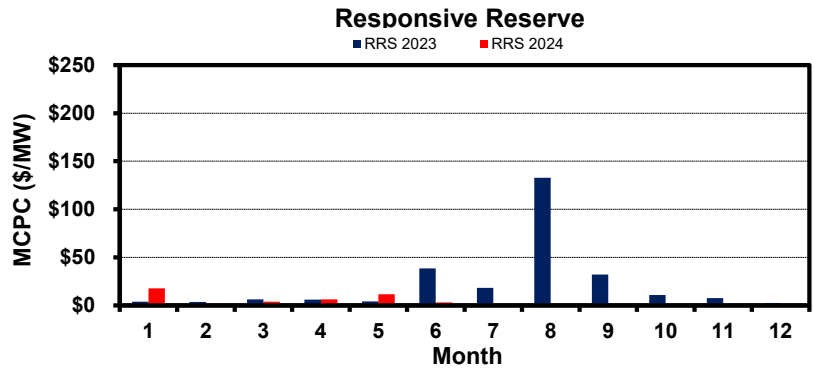
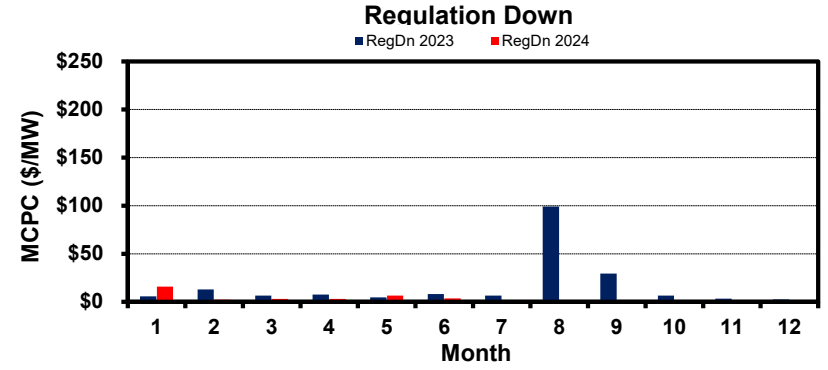
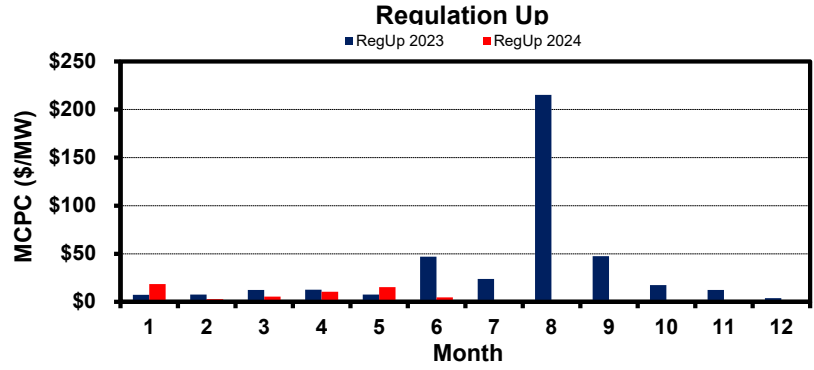


Hourly Average of Ancillary Services Required MW

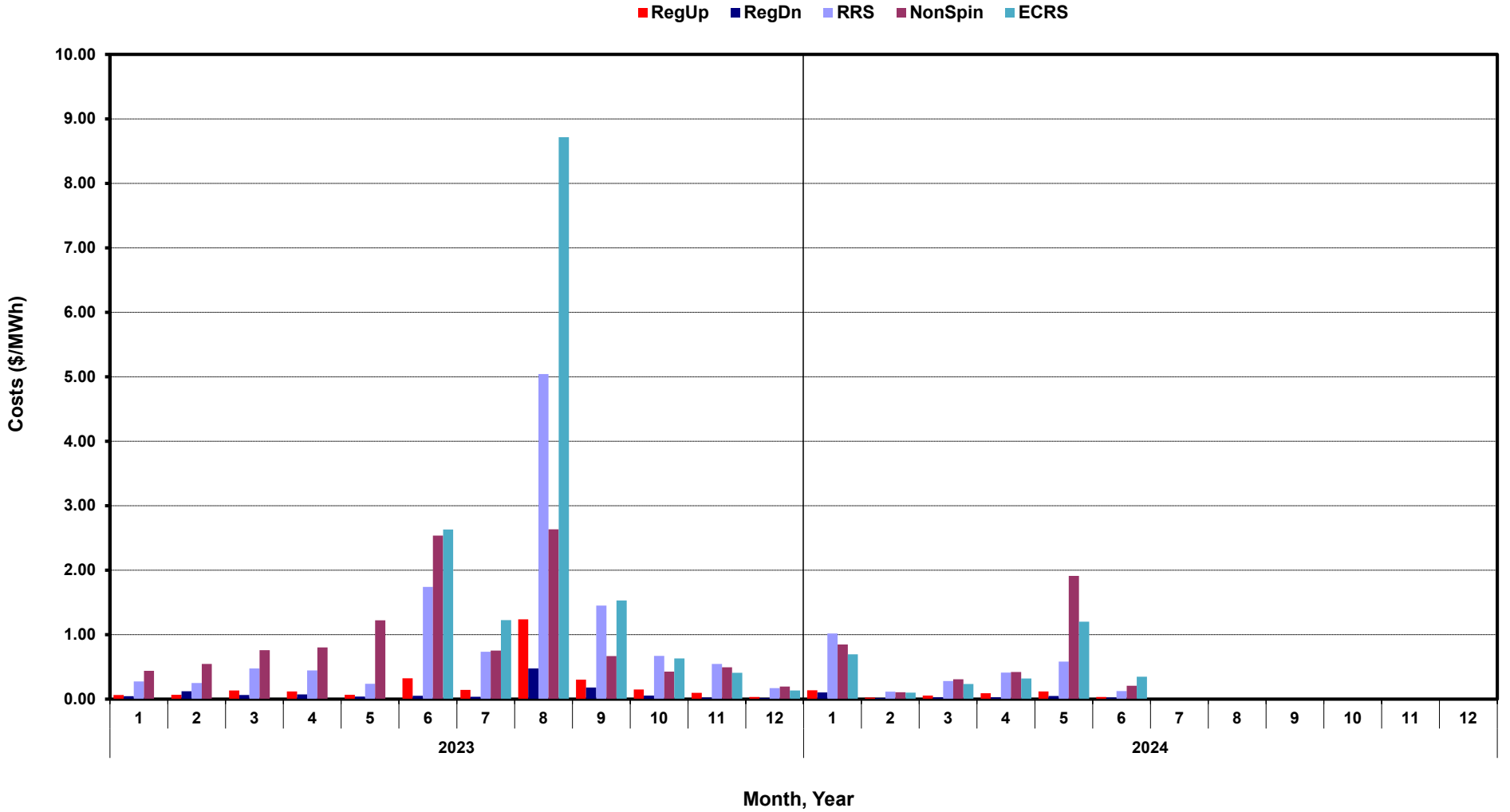


Monthly Average Ancillary Services Price

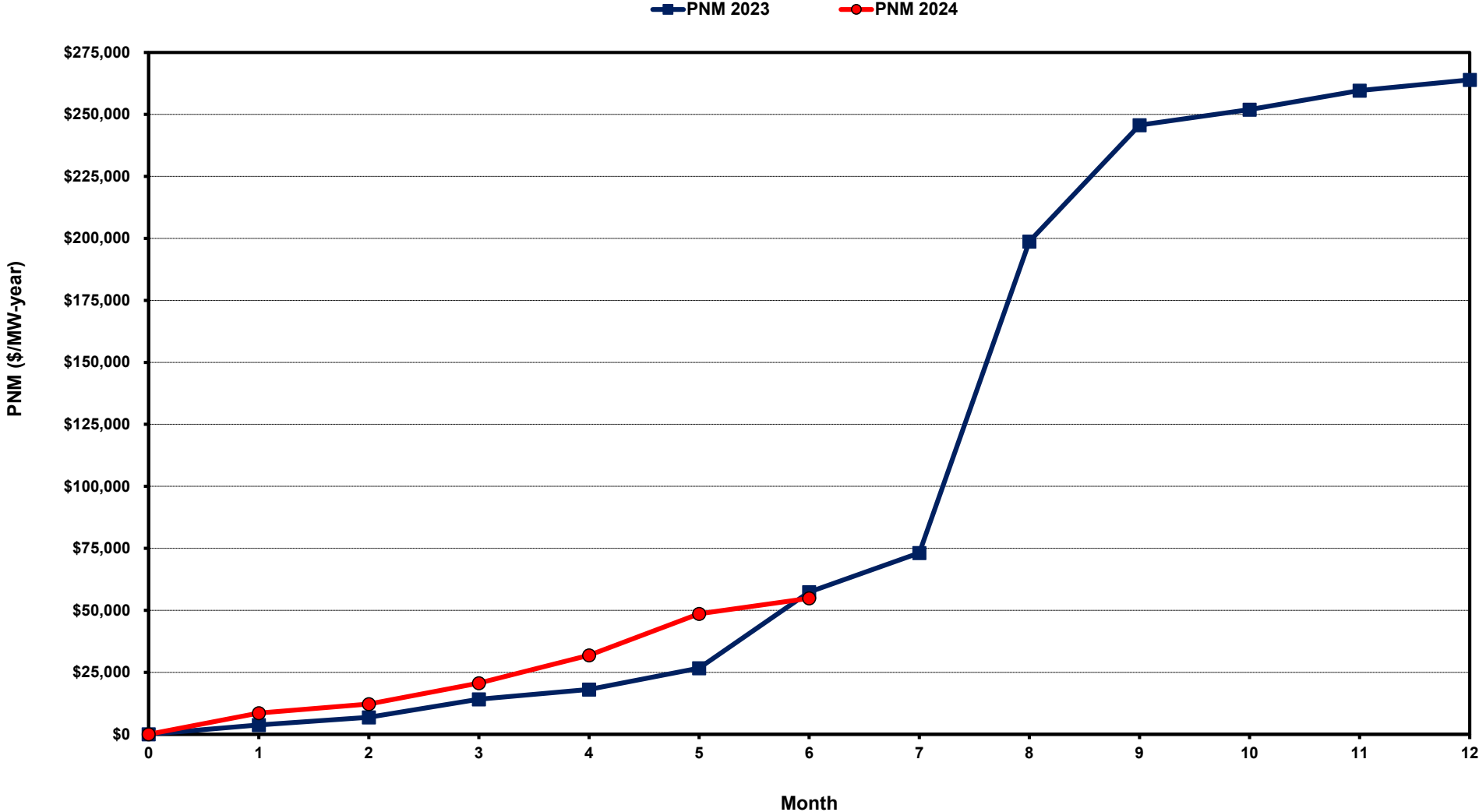
(weighted by A/S Quantities Required)



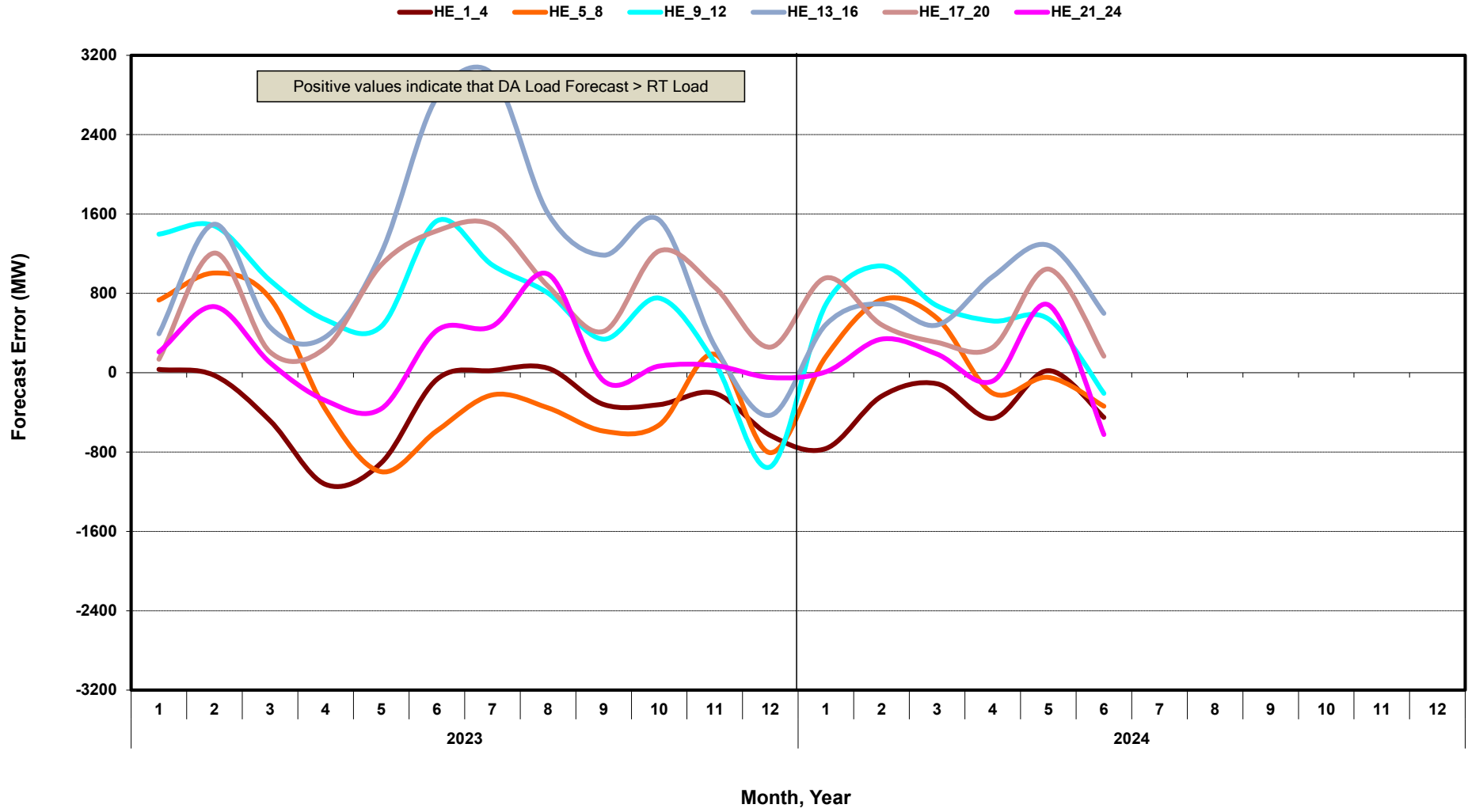
Monthly Average A/S Cost per MWh Load



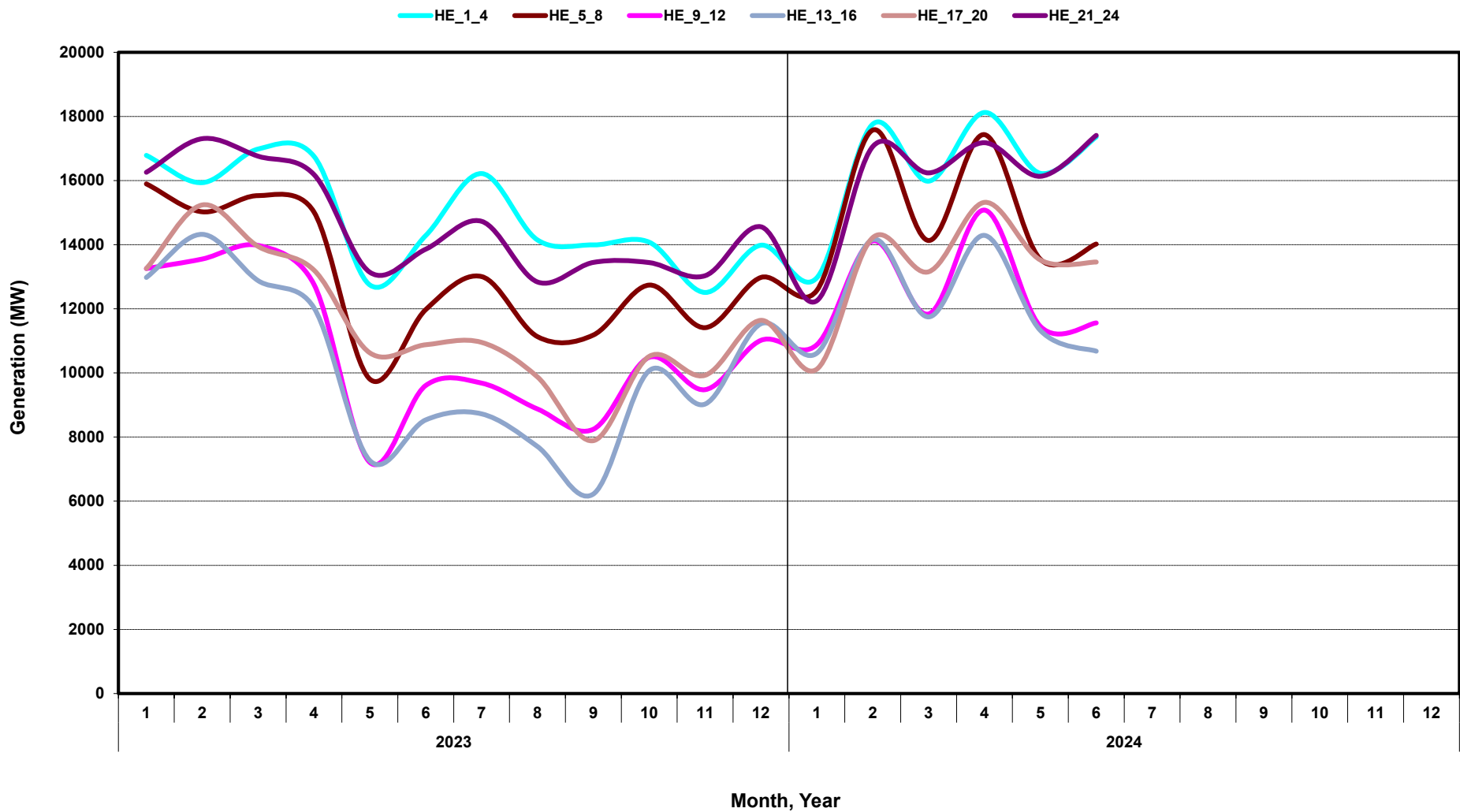
ERCOT-wide Cumulative Peaker Net Margin



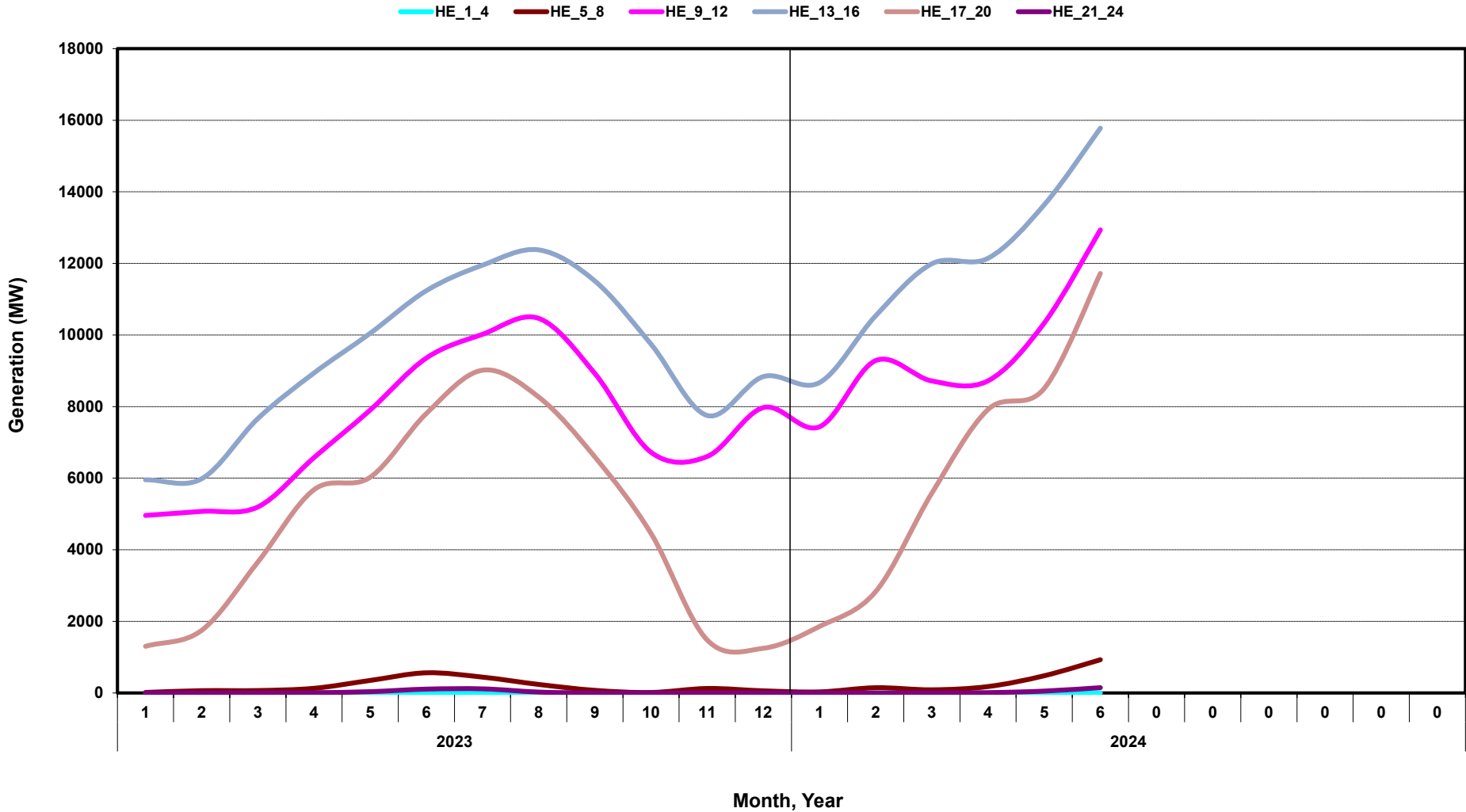
DA vs. RT Load Forecast Error by Hour Ending



Monthly Average of Wind Generation by Hour Ending

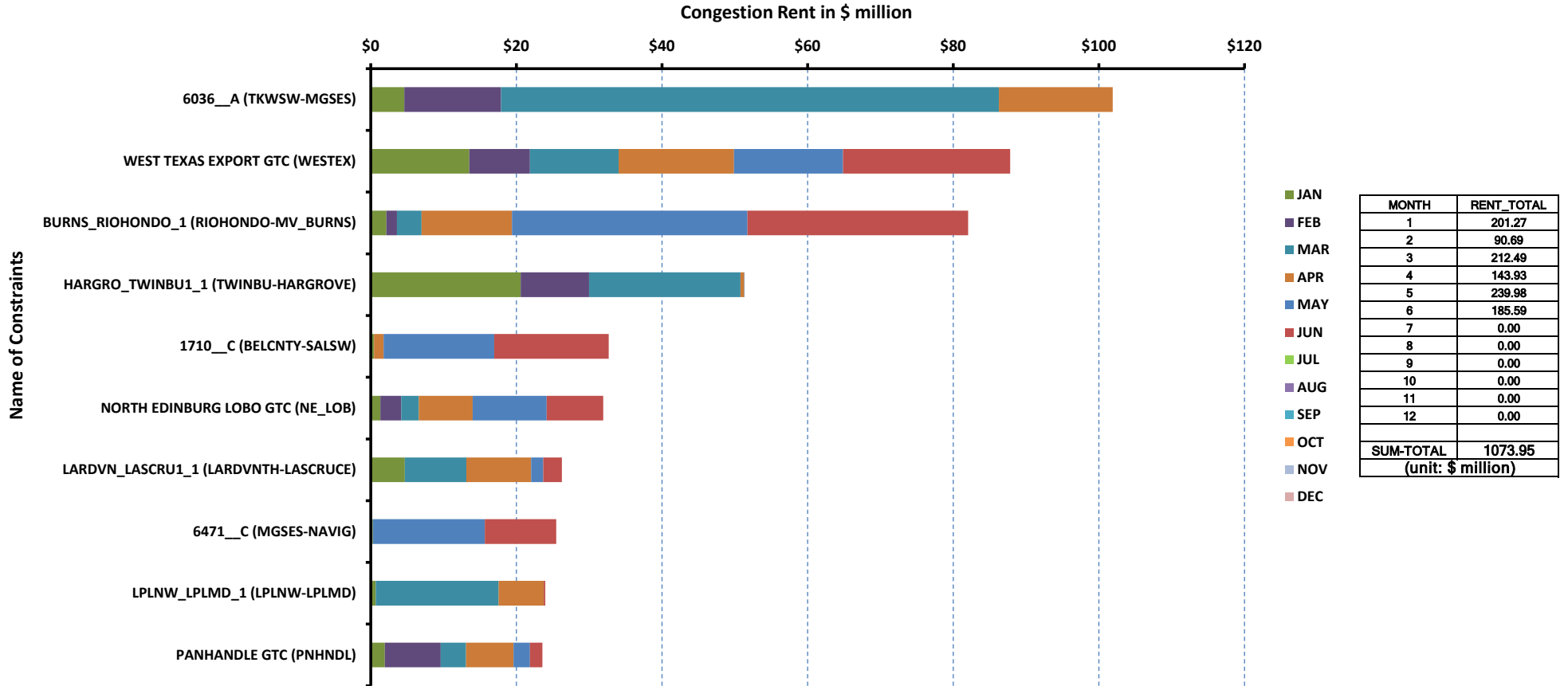


Monthly Average of Solar Generation by Hour Ending



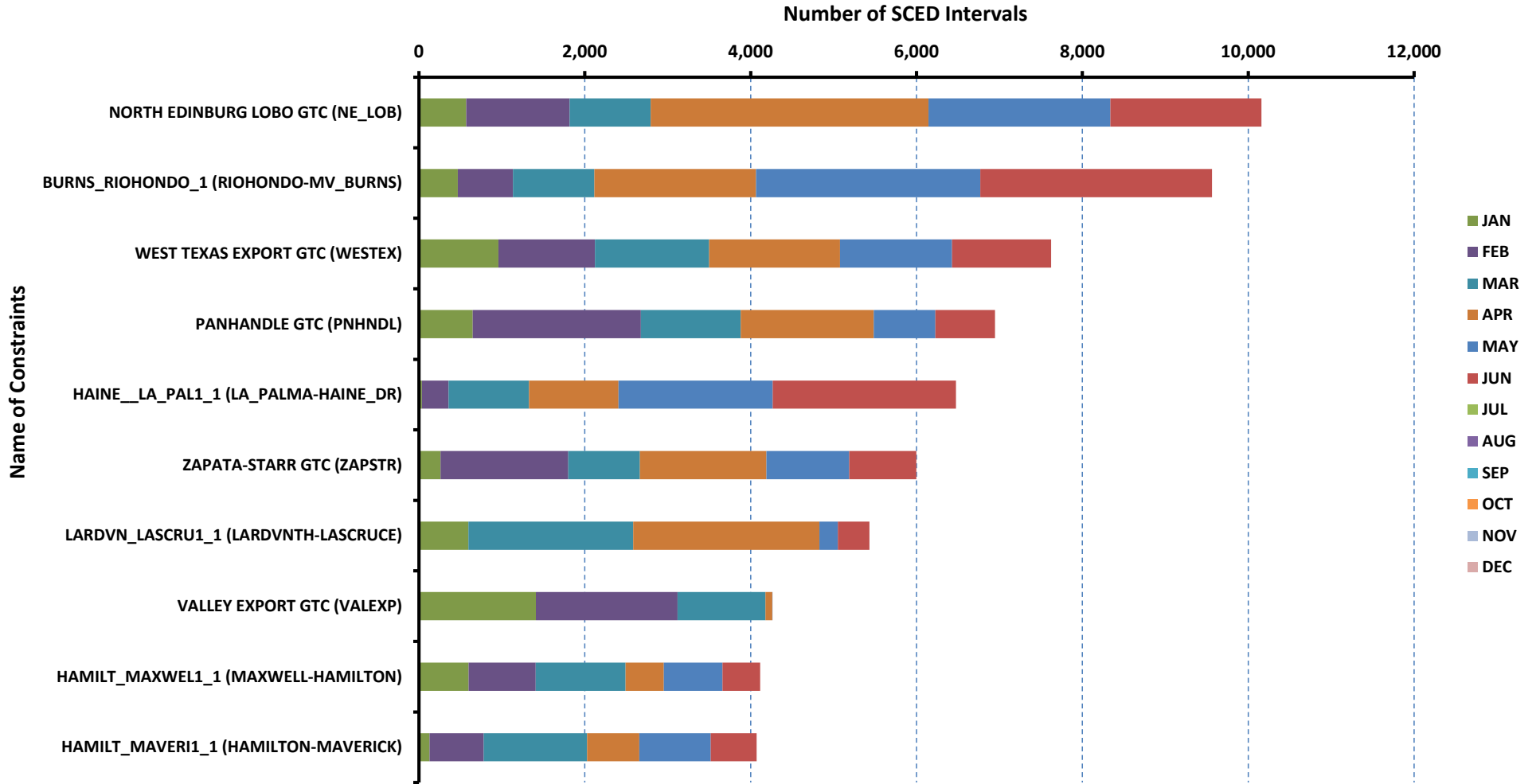
RT Congestion Constraint Rankings - 1

Top 10 Constraints by Total Congestion Value - 2024



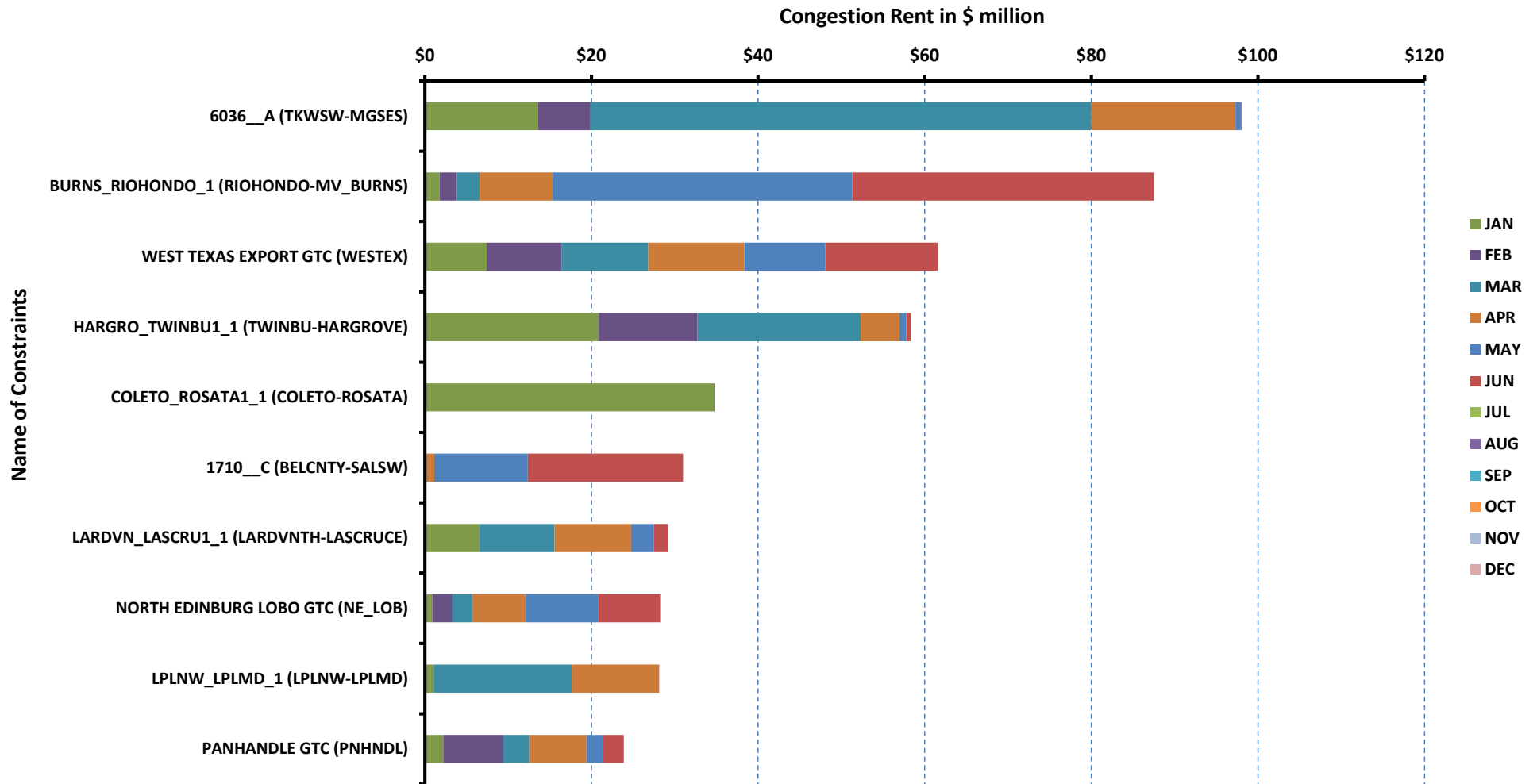
RT Congestion Constraint Rankings - 2

Top 10 Constraints by Binding Frequency - 2024



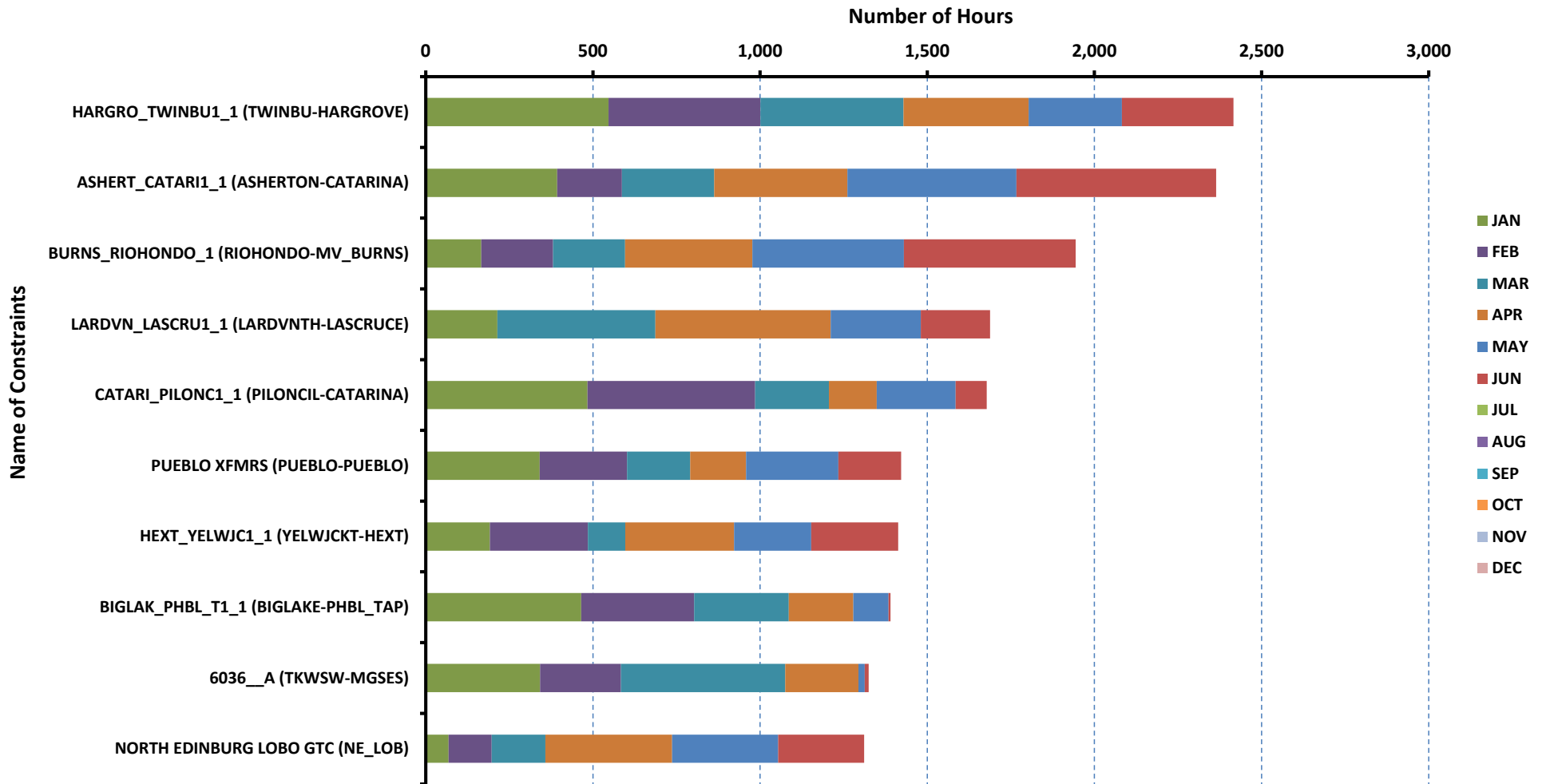
DA Congestion Constraint Rankings - 1

Top 10 Constraints by Total Congestion Value - 2024



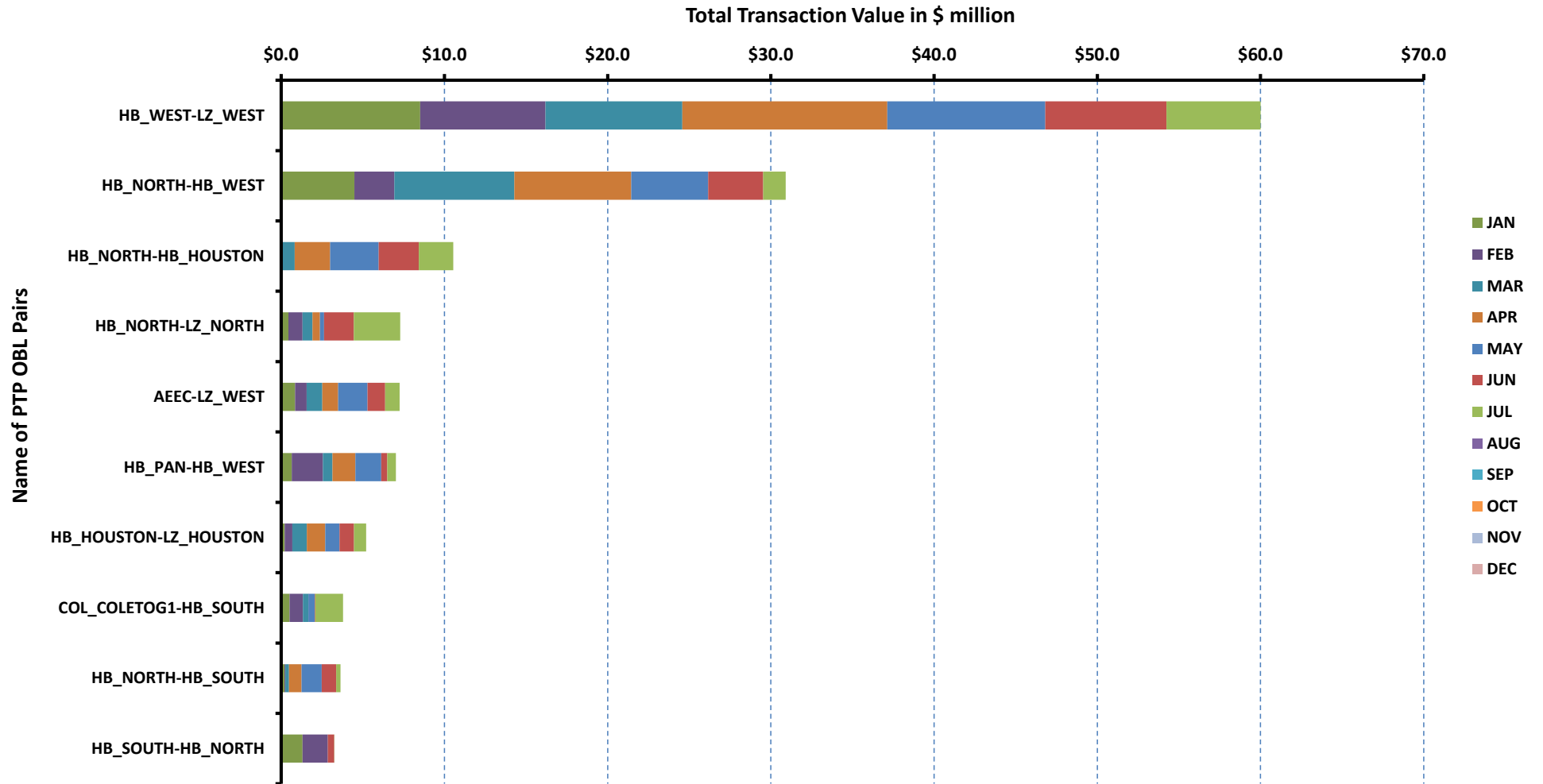
DA Congestion Constraint Rankings - 2

Top 10 Constraints by Binding Frequency - 2024



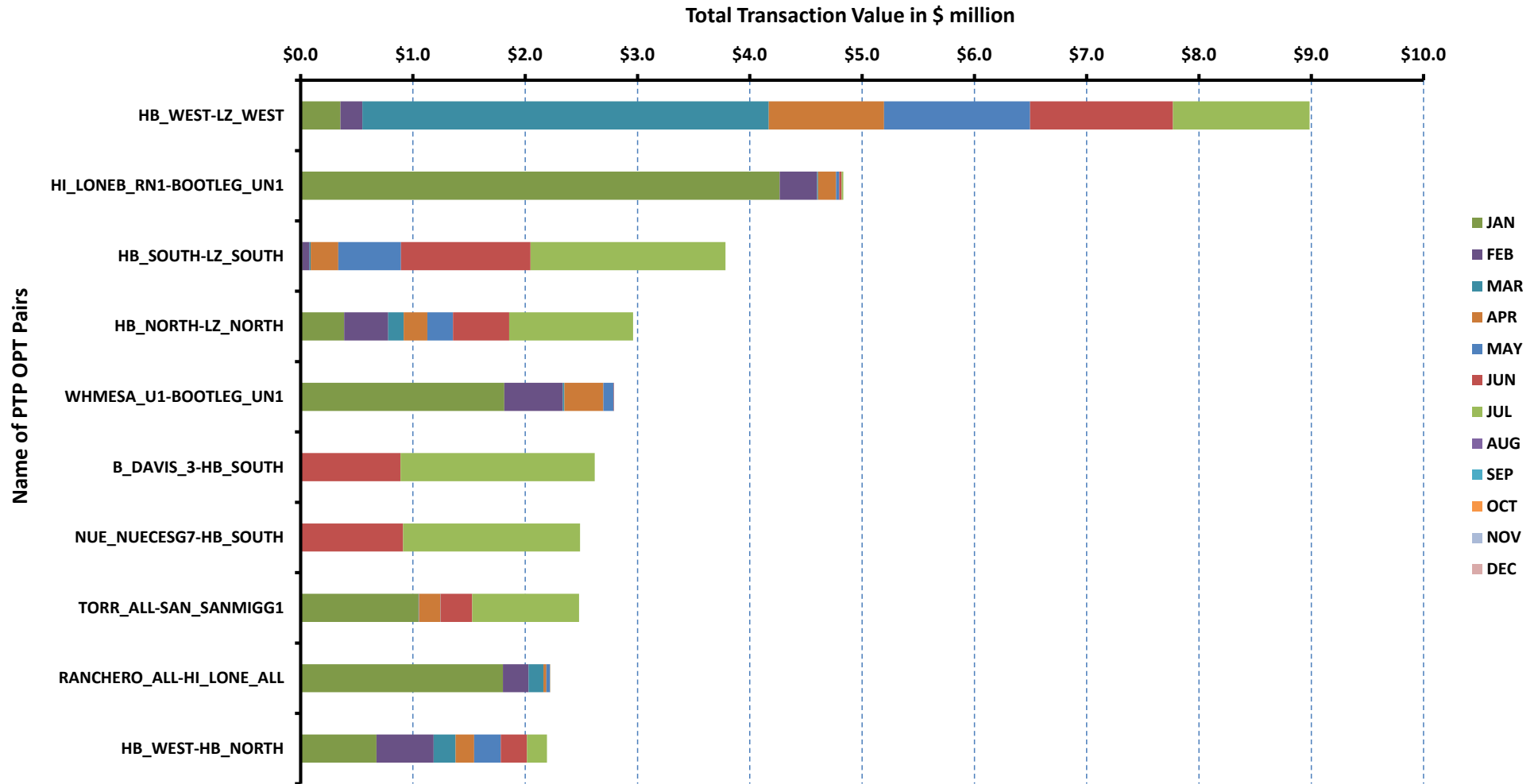
Top 10 CRR Pairs Ranked by Monthly Auction Values - 1

Top 10 PTP Obligations by Total Transaction Value - 2024



Top 10 CRR Pairs Ranked by Monthly Auction Values - 2

Top 10 PTP Options by Total Transaction Value - 2024



ERCOT-wide Avg. Energy Price - DA vs. RT			
year	month	dam_spp	rtm_spp
2023	1	\$ 28.02	\$ 26.68
	2	\$ 23.83	\$ 21.95
	3	\$ 29.90	\$ 31.20
	4	\$ 27.58	\$ 24.45
	5	\$ 32.08	\$ 32.48
	6	\$ 88.69	\$ 75.44
	7	\$ 64.45	\$ 48.58
	8	\$ 306.22	\$ 224.18
	9	\$ 86.20	\$ 111.36
	10	\$ 37.83	\$ 31.84
	11	\$ 33.62	\$ 31.71
	12	\$ 23.30	\$ 23.87
2024	1	\$ 57.00	\$ 40.43
	2	\$ 15.96	\$ 15.83
	3	\$ 25.15	\$ 24.75
	4	\$ 26.34	\$ 27.50
	5	\$ 52.84	\$ 46.34
	6	\$ 35.49	\$ 32.49
	7	\$ -	\$ -
	8	\$ -	\$ -
	9	\$ -	\$ -
	10	\$ -	\$ -
	11	\$ -	\$ -
	12	\$ -	\$ -

ERCOT-wide Monthly Implied Heat Rate - DA vs. RT						
year	month	gasprice	rtn_spp	HR_rtn	dam_spp	HR_dam
2023	1	\$ 2.65	\$ 26.68	10.07	\$ 28.02	10.58
	2	\$ 2.05	\$ 21.95	10.69	\$ 23.83	11.60
	3	\$ 2.08	\$ 31.20	15.00	\$ 29.90	14.37
	4	\$ 1.90	\$ 24.45	12.89	\$ 27.58	14.54
	5	\$ 1.96	\$ 32.48	16.59	\$ 32.08	16.39
	6	\$ 2.10	\$ 75.44	36.00	\$ 88.69	42.32
	7	\$ 2.36	\$ 48.58	20.62	\$ 64.45	27.35
	8	\$ 2.40	\$ 224.18	93.49	\$ 306.22	127.70
	9	\$ 2.41	\$ 111.36	46.30	\$ 86.20	35.84
	10	\$ 2.39	\$ 31.84	13.32	\$ 37.83	15.83
	11	\$ 2.29	\$ 31.71	13.88	\$ 33.62	14.71
	12	\$ 2.07	\$ 23.87	11.51	\$ 23.30	11.23
2024	1	\$ 3.02	\$ 40.43	13.37	\$ 57.00	18.85
	2	\$ 1.41	\$ 15.83	11.26	\$ 15.96	11.36
	3	\$ 1.30	\$ 24.75	19.09	\$ 25.15	19.40
	4	\$ 1.15	\$ 27.50	23.93	\$ 26.34	22.92
	5	\$ 1.82	\$ 46.34	25.46	\$ 52.84	29.03
	6	\$ 2.18	\$ 32.49	14.92	\$ 35.49	16.30
	7	\$ -	\$ -	-	\$ -	-
	8	\$ -	\$ -	-	\$ -	-
	9	\$ -	\$ -	-	\$ -	-
	10	\$ -	\$ -	-	\$ -	-
	11	\$ -	\$ -	-	\$ -	-
	12	\$ -	\$ -	-	\$ -	-

Daily ORDC Adders Average Values and Interval Duration								
YEAR	MONTH	DAY	PRICE_RS	PRICE_RDP	RS_CNT	RDP_CNT	RS_POS	RDP_POS
2024	6	1	\$ -	\$ -	0	0	80	90
2024	6	2	\$ -	\$ -	0	0	80	90
2024	6	3	\$ 0.02	\$ -	1	0	80	90
2024	6	4	\$ 0.02	\$ -	7	0	80	90
2024	6	5	\$ -	\$ -	0	0	80	90
2024	6	6	\$ -	\$ -	0	0	80	90
2024	6	7	\$ -	\$ -	0	0	80	90
2024	6	8	\$ -	\$ -	0	0	80	90
2024	6	9	\$ 0.01	\$ 1.51	3	8	80	90
2024	6	10	\$ 0.56	\$ 3.36	12	16	80	90
2024	6	11	\$ -	\$ -	0	0	80	90
2024	6	12	\$ 0.17	\$ 2.03	7	17	80	90
2024	6	13	\$ 0.02	\$ 1.92	5	5	80	90
2024	6	14	\$ 0.02	\$ 1.49	1	11	80	90
2024	6	15	\$ -	\$ 0.02	0	1	80	90
2024	6	16	\$ -	\$ -	0	0	80	90
2024	6	17	\$ -	\$ -	0	0	80	90
2024	6	18	\$ -	\$ -	0	0	80	90
2024	6	19	\$ -	\$ -	0	0	80	90
2024	6	20	\$ -	\$ -	0	0	80	90
2024	6	21	\$ -	\$ -	0	0	80	90
2024	6	22	\$ 1.43	\$ -	4	0	80	90
2024	6	23	\$ 0.45	\$ 1.94	6	16	80	90
2024	6	24	\$ -	\$ 0.31	0	49	80	90
2024	6	25	\$ 0.02	\$ -	3	0	80	90
2024	6	26	\$ -	\$ 0.78	0	36	80	90
2024	6	27	\$ -	\$ 0.31	0	4	80	90
2024	6	28	\$ -	\$ -	0	0	80	90
2024	6	29	\$ 0.01	\$ -	1	0	80	90
2024	6	30	\$ -	\$ -	0	0	80	90
0	0	0	\$ -	\$ -	0	0	0	0

Monthly Average of Ancillary Services Required MW						
year	month	ASMW_REGDN	ASMW_NSPIN	ASMW_RRS	ASMW_REGUP	ASMW_ECRS
2023	1	342	4,048	2,965	372	-
	2	420	4,243	3,022	400	-
	3	433	4,049	3,256	454	-
	4	405	4,262	3,102	400	-
	5	418	5,052	2,901	428	-
	6	376	3,275	2,676	408	2,073
	7	347	2,801	2,583	379	2,041
	8	323	2,207	2,566	389	2,127
	9	362	2,265	2,693	381	2,041
	10	399	2,467	2,950	409	1,784
	11	335	2,385	3,076	344	1,607
	12	339	3,092	3,053	366	1,847
2024	1	342	2,945	2,951	385	1,554
	2	403	2,968	2,951	409	1,668
	3	430	2,530	3,088	432	1,562
	4	399	2,672	3,003	408	1,464
	5	414	3,702	2,664	417	1,988
	6	388	2,906	2,420	418	2,009
	7	-	-	-	-	-
	8	-	-	-	-	-
	9	-	-	-	-	-
	10	-	-	-	-	-
	11	-	-	-	-	-
	12	-	-	-	-	-

Hourly Average of Ancillary Services Required MW						
year	DELIVERY_HOUR	ASMW_REGDN	ASMW_NSPIN	ASMW_RRS	ASMW_REGUP	ASMW_ECRS
2023	1	372	2,816	2,954	227	1,447
	2	294	2,816	2,954	189	1,393
	3	248	3,101	2,987	214	1,462
	4	223	3,103	2,988	242	1,460
	5	219	3,103	2,988	297	1,431
	6	261	3,103	2,988	426	1,440
	7	233	3,558	2,883	521	1,598
	8	362	3,558	2,883	347	1,815
	9	592	3,558	2,883	340	2,104
	10	495	3,558	2,883	486	2,474
	11	421	3,668	2,778	530	2,305
	12	393	3,668	2,778	535	2,325
	13	385	3,687	2,778	522	2,267
	14	375	3,687	2,778	510	2,283
	15	404	3,620	2,908	499	2,331
	16	419	3,620	2,908	523	2,413
	17	424	3,620	2,908	606	2,359
	18	405	3,620	2,908	652	2,359
	19	397	3,147	2,905	546	2,172
	20	338	3,147	2,905	409	2,042
	21	376	3,147	2,905	275	1,864
	22	439	3,147	2,905	201	1,756
	23	472	3,068	2,954	192	1,612
	24	443	3,068	2,954	168	1,501
2024	1	387	2,228	2,927	268	1,114
	2	314	2,228	2,927	241	1,108
	3	258	2,773	2,963	236	1,203
	4	245	2,768	2,964	265	1,148
	5	233	2,768	2,964	317	1,209
	6	265	2,768	2,964	454	1,230
	7	242	3,403	2,882	547	1,407
	8	508	3,403	2,882	340	1,719
	9	707	3,403	2,882	343	2,299
	10	523	3,403	2,882	471	2,296
	11	447	3,332	2,811	487	2,217
	12	421	3,332	2,811	491	2,016
	13	425	3,387	2,811	487	1,888
	14	414	3,387	2,811	521	1,948
	15	412	3,159	2,750	475	2,052
	16	435	3,159	2,750	531	2,061
	17	438	3,159	2,750	609	2,261
	18	424	3,159	2,750	686	2,237
	19	383	2,679	2,744	620	1,961
	20	320	2,679	2,744	529	1,710
	21	362	2,679	2,744	316	1,648
	22	421	2,679	2,744	246	1,593
	23	469	2,499	2,927	214	1,364
	24	450	2,499	2,927	180	1,285

Monthly Average Ancillary Services Price						
year	month	MCPC_REGDN	MCPC_NSPIN	MCPC_RRS	MCPC_REGUP	MCPC_ECRS
2023	1	\$ 5.69	\$ 4.69	\$ 4.00	\$ 7.27	\$ -
	2	\$ 12.99	\$ 5.79	\$ 3.72	\$ 7.58	\$ -
	3	\$ 6.42	\$ 8.01	\$ 6.24	\$ 12.47	\$ -
	4	\$ 7.65	\$ 8.03	\$ 6.12	\$ 12.52	\$ -
	5	\$ 4.74	\$ 11.87	\$ 4.03	\$ 7.66	\$ -
	6	\$ 8.20	\$ 45.87	\$ 38.57	\$ 47.00	\$ 107.44
	7	\$ 6.53	\$ 17.12	\$ 18.14	\$ 23.85	\$ 38.30
	8	\$ 99.16	\$ 80.61	\$ 132.73	\$ 215.17	\$ 276.73
	9	\$ 29.48	\$ 17.56	\$ 32.12	\$ 47.44	\$ 44.76
	10	\$ 6.59	\$ 8.23	\$ 10.82	\$ 17.38	\$ 16.78
	11	\$ 3.19	\$ 8.98	\$ 7.73	\$ 12.42	\$ 11.06
	12	\$ 2.60	\$ 2.81	\$ 2.50	\$ 3.91	\$ 3.28
2024	1	\$ 15.69	\$ 14.74	\$ 17.72	\$ 18.47	\$ 22.98
	2	\$ 2.15	\$ 1.58	\$ 1.74	\$ 2.65	\$ 2.64
	3	\$ 2.90	\$ 5.29	\$ 3.95	\$ 5.52	\$ 6.54
	4	\$ 3.01	\$ 7.30	\$ 6.37	\$ 10.41	\$ 10.16
	5	\$ 6.40	\$ 27.75	\$ 11.74	\$ 15.37	\$ 32.49
	6	\$ 3.62	\$ 4.39	\$ 3.20	\$ 4.71	\$ 10.62
	7	\$ -	\$ -	\$ -	\$ -	\$ -
	8	\$ -	\$ -	\$ -	\$ -	\$ -
	9	\$ -	\$ -	\$ -	\$ -	\$ -
	10	\$ -	\$ -	\$ -	\$ -	\$ -
	11	\$ -	\$ -	\$ -	\$ -	\$ -
	12	\$ -	\$ -	\$ -	\$ -	\$ -

Monthly Average A/S Cost per MWh Load						
year	month	AScost_REGDN	AScost_NSPIN	AScost_RRS	AScost_REGUP	AScost_ECRS
2023	1	\$ 0.04	\$ 0.44	\$ 0.27	\$ 0.06	\$ -
	2	\$ 0.12	\$ 0.55	\$ 0.25	\$ 0.07	\$ -
	3	\$ 0.06	\$ 0.76	\$ 0.48	\$ 0.13	\$ -
	4	\$ 0.07	\$ 0.80	\$ 0.45	\$ 0.12	\$ -
	5	\$ 0.04	\$ 1.22	\$ 0.24	\$ 0.07	\$ -
	6	\$ 0.05	\$ 2.53	\$ 1.74	\$ 0.32	\$ 2.63
	7	\$ 0.04	\$ 0.75	\$ 0.73	\$ 0.14	\$ 1.23
	8	\$ 0.47	\$ 2.63	\$ 5.04	\$ 1.24	\$ 8.72
	9	\$ 0.18	\$ 0.67	\$ 1.45	\$ 0.30	\$ 1.53
	10	\$ 0.06	\$ 0.43	\$ 0.67	\$ 0.15	\$ 0.63
	11	\$ 0.02	\$ 0.49	\$ 0.55	\$ 0.10	\$ 0.41
	12	\$ 0.02	\$ 0.19	\$ 0.17	\$ 0.03	\$ 0.14
2024	1	\$ 0.10	\$ 0.85	\$ 1.02	\$ 0.14	\$ 0.70
	2	\$ 0.02	\$ 0.11	\$ 0.12	\$ 0.02	\$ 0.10
	3	\$ 0.03	\$ 0.31	\$ 0.28	\$ 0.06	\$ 0.24
	4	\$ 0.03	\$ 0.42	\$ 0.41	\$ 0.09	\$ 0.32
	5	\$ 0.05	\$ 1.91	\$ 0.58	\$ 0.12	\$ 1.20
	6	\$ 0.02	\$ 0.21	\$ 0.13	\$ 0.03	\$ 0.35
	7	\$ -	\$ -	\$ -	\$ -	\$ -
	8	\$ -	\$ -	\$ -	\$ -	\$ -
	9	\$ -	\$ -	\$ -	\$ -	\$ -
	10	\$ -	\$ -	\$ -	\$ -	\$ -
	11	\$ -	\$ -	\$ -	\$ -	\$ -
	12	\$ -	\$ -	\$ -	\$ -	\$ -

ERCOT-wide Cumulative PNM			
year	month	pnm	pnm_accum
2023	0	\$ -	\$ -
	1	\$ 3,758.67	\$ 3,758.67
	2	\$ 3,066.65	\$ 6,825.32
	3	\$ 7,327.65	\$ 14,152.97
	4	\$ 3,963.19	\$ 18,116.16
	5	\$ 8,532.76	\$ 26,648.92
	6	\$ 30,725.00	\$ 57,373.92
	7	\$ 15,736.44	\$ 73,110.36
	8	\$ 125,626.42	\$ 198,736.78
	9	\$ 46,968.45	\$ 245,705.23
	10	\$ 6,305.54	\$ 252,010.77
	11	\$ 7,639.84	\$ 259,650.61
12	\$ 4,296.20	\$ 263,946.81	
2024	0	\$ -	\$ -
	1	\$ 8,527.11	\$ 8,527.11
	2	\$ 3,701.32	\$ 12,228.43
	3	\$ 8,447.84	\$ 20,676.27
	4	\$ 11,209.11	\$ 31,885.38
	5	\$ 16,738.09	\$ 48,623.47
	6	\$ 6,214.57	\$ 54,838.04
	7	\$ -	\$ -
	8	\$ -	\$ -
	9	\$ -	\$ -
	10	\$ -	\$ -
	11	\$ -	\$ -
12	\$ -	\$ -	

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
2023	1	33	392	136	210	732	1,397
	2	(28)	1,497	1,206	666	1,005	1,480
	3	(484)	459	208	100	750	931
	4	(1,127)	362	252	(282)	(373)	534
	5	(909)	1,207	1,088	(363)	(998)	467
	6	(68)	2,778	1,430	426	(586)	1,530
	7	22	3,009	1,488	469	(224)	1,085
	8	45	1,604	872	994	(355)	802
	9	(320)	1,185	417	(82)	(589)	338
	10	(322)	1,539	1,228	67	(527)	752
	11	(207)	268	863	73	186	101
	12	(632)	(429)	258	(48)	(806)	(949)
2024	1	(764)	486	956	9	163	690
	2	(237)	694	483	339	735	1,077
	3	(112)	481	306	187	549	675
	4	(461)	969	256	(84)	(206)	522
	5	21	1,284	1,045	684	(47)	543
	6	(451)	598	167	(623)	(338)	(208)
	7	-	-	-	-	-	-
	8	-	-	-	-	-	-
	9	-	-	-	-	-	-
	10	-	-	-	-	-	-
	11	-	-	-	-	-	-
	12	-	-	-	-	-	-

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
2023	1	16,786	12,978	13,256	16,258	15,896	13,255
	2	15,935	14,322	15,239	17,307	15,026	13,552
	3	16,983	12,878	13,946	16,760	15,530	13,978
	4	16,756	12,031	13,207	16,187	15,018	12,761
	5	12,744	7,265	10,625	13,140	9,807	7,209
	6	14,285	8,535	10,879	13,859	11,975	9,609
	7	16,218	8,723	10,953	14,729	13,006	9,683
	8	14,147	7,705	9,874	12,837	11,131	8,875
	9	13,994	6,223	7,888	13,447	11,182	8,244
	10	14,077	10,071	10,516	13,441	12,740	10,486
	11	12,510	9,029	9,928	13,033	11,412	9,478
	12	13,984	11,534	11,641	14,558	12,979	11,017
2024	1	12,969	10,617	10,118	12,254	12,574	10,880
	2	17,760	14,160	14,221	17,060	17,575	14,116
	3	15,982	11,747	13,155	16,239	14,130	11,839
	4	18,123	14,290	15,320	17,181	17,432	15,079
	5	16,225	11,325	13,522	16,133	13,545	11,451
	6	17,360	10,678	13,458	17,409	14,020	11,560
	7	-	-	-	-	-	-
	8	-	-	-	-	-	-
	9	-	-	-	-	-	-
	10	-	-	-	-	-	-
	11	-	-	-	-	-	-
	12	-	-	-	-	-	-

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	2024	NORTH EDINBURG LOBO GTC (NE_LOB)	10160	1	571	1245	977	3350	2195	1822	0	0	0	0	0	0
FREQ_EXIST	2024	BURNS RIOHONDO 1 (RIOHONDO-MV_BURNS)	9563	2	469	664	982	1949	2705	2794	0	0	0	0	0	0
FREQ_EXIST	2024	WEST TEXAS EXPORT GTC (WESTEX)	7624	3	958	1163	1377	1578	1353	1195	0	0	0	0	0	0
FREQ_EXIST	2024	PANHANDLE GTC (PNHNDL)	6947	4	647	2029	1204	1604	742	721	0	0	0	0	0	0
FREQ_EXIST	2024	HAIN LA PAL 1 (LA PALMA-HAINE_DR)	6475	5	36	321	971	1079	1859	2209	0	0	0	0	0	0
FREQ_EXIST	2024	ZAPATA-STARR GTC (ZAPSTR)	5998	6	261	1539	864	1526	998	810	0	0	0	0	0	0
FREQ_EXIST	2024	LARDVN_LASCRU1_1 (LARDVNTH-LASCROUTE)	5432	7	595	0	1988	2246	223	380	0	0	0	0	0	0
FREQ_EXIST	2024	VALLEY EXPORT GTC (VALEXP)	4264	8	1410	1707	1060	85	2	0	0	0	0	0	0	0
FREQ_EXIST	2024	HAMILT_MAXWEL1_1 (MAXWELL-HAMILTON)	4114	9	599	809	1083	462	706	455	0	0	0	0	0	0
FREQ_EXIST	2024	HAMILT_MAVERI1_1 (HAMILTON-MAVERICK)	4071	10	127	654	1246	630	862	552	0	0	0	0	0	0
TOP10_RENT	2024	6036_A (TKWSW-MGSES)	\$ 101.90	1	\$ 4.60	\$ 13.29	\$ 68.38	\$ 15.63	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	WEST TEXAS EXPORT GTC (WESTEX)	\$ 87.81	2	\$ 13.53	\$ 8.32	\$ 12.19	\$ 15.85	\$ 14.98	\$ 22.95	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	BURNS RIOHONDO 1 (RIOHONDO-MV_BURNS)	\$ 82.05	3	\$ 2.14	\$ 1.46	\$ 3.38	\$ 12.42	\$ 32.34	\$ 30.31	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	HARGRO_TWINBU1_1 (TWINBU-HARGROVE)	\$ 51.35	4	\$ 20.59	\$ 9.39	\$ 20.80	\$ 0.51	\$ 0.05	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	1710_C (BELCNTY-SALSW)	\$ 32.67	5	\$ 0.46	\$ -	\$ -	\$ 1.32	\$ 15.19	\$ 15.71	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	NORTH EDINBURG LOBO GTC (NE_LOB)	\$ 31.93	6	\$ 1.33	\$ 2.85	\$ 2.42	\$ 7.41	\$ 10.17	\$ 7.77	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	LARDVN_LASCRU1_1 (LARDVNTH-LASCROUTE)	\$ 26.24	7	\$ 4.67	\$ -	\$ 8.45	\$ 8.91	\$ 1.66	\$ 2.56	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	6471_C (MGSES-NAVIG)	\$ 25.46	8	\$ 0.29	\$ -	\$ -	\$ -	\$ 15.37	\$ 9.80	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	LPLNW_LPLMD_1 (LPLNW-LPLMD)	\$ 23.96	9	\$ 0.68	\$ -	\$ 16.88	\$ 6.19	\$ -	\$ 0.21	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	PANHANDLE GTC (PNHNDL)	\$ 23.56	10	\$ 1.92	\$ 7.68	\$ 3.48	\$ 6.52	\$ 2.25	\$ 1.71	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

MONTH	RENT_TOTAL
1	201.27
2	90.69
3	212.49
4	143.93
5	239.98
6	185.59
7	0.00
8	0.00
9	0.00
10	0.00
11	0.00
12	0.00
Sum-Total	1073.95

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	2024	HARGRO_TWINBU1_1 (TWINBU-HARGROVE)	2,416	1	547	454	428	374	279	334	-	-	-	-	-	-
FREQ_EXIST	2024	ASHERT_CATARI1_1 (ASHERTON-CATARINA)	2,364	2	393	194	276	398	506	597	-	-	-	-	-	-
FREQ_EXIST	2024	BURNS_RIOHONDO_1 (RIOHONDO-MV_BURNS)	1,944	3	166	215	215	381	453	514	-	-	-	-	-	-
FREQ_EXIST	2024	LARDVN_LASCRU1_1 (LARDVNTH-LASCRUCE)	1,688	4	214	-	473	524	270	207	-	-	-	-	-	-
FREQ_EXIST	2024	CATARI_PILONC1_1 (PILONCIL-CATARINA)	1,678	5	484	501	221	143	236	93	-	-	-	-	-	-
FREQ_EXIST	2024	PUEBLO_XFMRS (PUEBLO-PUEBLO)	1,422	6	341	261	189	167	276	188	-	-	-	-	-	-
FREQ_EXIST	2024	HEXT_YELWJC1_1 (YELWJCKT-HEXT)	1,413	7	192	293	112	325	231	260	-	-	-	-	-	-
FREQ_EXIST	2024	BIGLAK_PHBL_T1_1 (BIGLAKE-PHBL_TAP)	1,390	8	465	338	283	193	105	6	-	-	-	-	-	-
FREQ_EXIST	2024	6036_A (TKWSW-MGSES)	1,325	9	342	242	491	219	19	12	-	-	-	-	-	-
FREQ_EXIST	2024	NORTH EDINBURG LOBO GTC (NE_LOB)	1,311	10	68	129	161	379	317	257	-	-	-	-	-	-
TOP10_RENT	2024	6036_A (TKWSW-MGSES)	\$ 98.04	1	\$ 13.59	\$ 6.30	\$ 60.11	\$ 17.30	\$ 0.63	\$ 0.11	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	BURNS_RIOHONDO_1 (RIOHONDO-MV_BURNS)	\$ 87.52	2	\$ 1.76	\$ 2.08	\$ 2.73	\$ 8.78	\$ 35.95	\$ 36.21	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	WEST TEXAS EXPORT GTC (WESTEX)	\$ 61.56	3	\$ 7.41	\$ 8.98	\$ 10.43	\$ 11.52	\$ 9.72	\$ 13.50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	HARGRO_TWINBU1_1 (TWINBU-HARGROVE)	\$ 58.36	4	\$ 20.87	\$ 11.87	\$ 19.58	\$ 4.65	\$ 0.83	\$ 0.57	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	COLETO_ROSATA1_1 (COLETO-ROSATA)	\$ 34.77	5	\$ 34.68	\$ -	\$ -	\$ -	\$ -	\$ 0.09	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	1710_C (BELCNTY-SALSW)	\$ 31.00	6	\$ 0.00	\$ -	\$ 0.01	\$ 1.12	\$ 11.22	\$ 18.65	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	LARDVN_LASCRU1_1 (LARDVNTH-LASCRUCE)	\$ 29.20	7	\$ 6.56	\$ -	\$ 9.01	\$ 9.18	\$ 2.75	\$ 1.69	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	NORTH EDINBURG LOBO GTC (NE_LOB)	\$ 28.24	8	\$ 0.89	\$ 2.41	\$ 2.38	\$ 6.44	\$ 8.67	\$ 7.45	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	LPLNW_LPLMD_1 (LPLNW-LPLMD)	\$ 28.11	9	\$ 1.07	\$ -	\$ 16.58	\$ 10.47	\$ -	\$ 0.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOP10_RENT	2024	PANHANDLE GTC (PNHNDL)	\$ 23.87	10	\$ 2.20	\$ 7.21	\$ 3.12	\$ 6.87	\$ 2.02	\$ 2.45	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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																
ptr_option	year	pair	total_value	rank	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
N	2024	HB WEST-LZ WEST	\$ 60.00	1	\$ 8.52	\$ 7.67	\$ 8.38	\$ 12.56	\$ 9.68	\$ 7.43	\$ 5.76	\$ -	\$ -	\$ -	\$ -	\$ -
N	2024	HB NORTH-HB WEST	\$ 30.91	2	\$ 4.48	\$ 2.45	\$ 7.35	\$ 7.16	\$ 4.72	\$ 3.37	\$ 1.39	\$ -	\$ -	\$ -	\$ -	\$ -
N	2024	HB NORTH-HB HOUSTON	\$ 10.54	3	\$ 0.04	\$ 0.02	\$ 0.77	\$ 2.18	\$ 2.97	\$ 2.46	\$ 2.11	\$ -	\$ -	\$ -	\$ -	\$ -
N	2024	HB NORTH-LZ NORTH	\$ 7.29	4	\$ 0.44	\$ 0.87	\$ 0.61	\$ 0.46	\$ 0.25	\$ 1.83	\$ 2.84	\$ -	\$ -	\$ -	\$ -	\$ -
N	2024	AEEC-LZ WEST	\$ 7.26	5	\$ 0.85	\$ 0.71	\$ 0.95	\$ 0.98	\$ 1.80	\$ 1.07	\$ 0.89	\$ -	\$ -	\$ -	\$ -	\$ -
N	2024	HB PAN-HB WEST	\$ 7.03	6	\$ 0.65	\$ 1.90	\$ 0.59	\$ 1.41	\$ 1.58	\$ 0.38	\$ 0.53	\$ -	\$ -	\$ -	\$ -	\$ -
N	2024	HB HOUSTON-LZ HOUSTON	\$ 5.20	7	\$ 0.21	\$ 0.47	\$ 0.89	\$ 1.12	\$ 0.88	\$ 0.88	\$ 0.74	\$ -	\$ -	\$ -	\$ -	\$ -
N	2024	COL_COLETOG1-HB SOUTH	\$ 3.78	8	\$ 0.51	\$ 0.82	\$ 0.33	\$ 0.00	\$ 0.38	\$ 0.03	\$ 1.70	\$ -	\$ -	\$ -	\$ -	\$ -
N	2024	HB NORTH-HB SOUTH	\$ 3.63	9	\$ 0.20	\$ 0.06	\$ 0.23	\$ 0.77	\$ 1.23	\$ 0.89	\$ 0.26	\$ -	\$ -	\$ -	\$ -	\$ -
N	2024	HB SOUTH-HB NORTH	\$ 3.27	10	\$ 1.30	\$ 1.55	\$ -	\$ -	\$ -	\$ 0.39	\$ 0.02	\$ -	\$ -	\$ -	\$ -	\$ -
Y	2024	HB WEST-LZ WEST	\$ 8.98	1	\$ 0.35	\$ 0.20	\$ 3.62	\$ 1.03	\$ 1.30	\$ 1.27	\$ 1.22	\$ -	\$ -	\$ -	\$ -	\$ -
Y	2024	HI_LONEB_RN1-BOOTLEG_UN1	\$ 4.83	2	\$ 4.27	\$ 0.33	\$ 0.01	\$ 0.16	\$ 0.03	\$ 0.02	\$ 0.02	\$ -	\$ -	\$ -	\$ -	\$ -
Y	2024	HB SOUTH-LZ SOUTH	\$ 3.78	3	\$ 0.02	\$ 0.06	\$ 0.01	\$ 0.25	\$ 0.56	\$ 1.15	\$ 1.74	\$ -	\$ -	\$ -	\$ -	\$ -
Y	2024	HB NORTH-LZ NORTH	\$ 2.96	4	\$ 0.39	\$ 0.39	\$ 0.14	\$ 0.21	\$ 0.23	\$ 0.50	\$ 1.10	\$ -	\$ -	\$ -	\$ -	\$ -
Y	2024	WHMESA_U1-BOOTLEG_UN1	\$ 2.79	5	\$ 1.81	\$ 0.52	\$ 0.01	\$ 0.35	\$ 0.09	\$ 0.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Y	2024	B_DAVIS_3-HB SOUTH	\$ 2.62	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.89	\$ 1.73	\$ -	\$ -	\$ -	\$ -	\$ -
Y	2024	NUE_NUECESG7-HB SOUTH	\$ 2.49	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.91	\$ 1.58	\$ -	\$ -	\$ -	\$ -	\$ -
Y	2024	TORR_ALL-SAN_SANMIGG1	\$ 2.48	8	\$ 1.05	\$ 0.00	\$ 0.00	\$ 0.19	\$ 0.00	\$ 0.28	\$ 0.95	\$ -	\$ -	\$ -	\$ -	\$ -
Y	2024	RANCHERO_ALL-HI_LONE_ALL	\$ 2.22	9	\$ 1.80	\$ 0.23	\$ 0.13	\$ 0.02	\$ 0.03	\$ 0.00	\$ 0.00	\$ -	\$ -	\$ -	\$ -	\$ -
Y	2024	HB WEST-HB NORTH	\$ 2.19	10	\$ 0.67	\$ 0.51	\$ 0.19	\$ 0.17	\$ 0.24	\$ 0.23	\$ 0.18	\$ -	\$ -	\$ -	\$ -	\$ -