

Market Highlights¹ (June 27–July 10)

- The average DLAP price in the integrated forward market was \$39.30. The maximum and minimum DLAP prices were \$193.73 and \$10.45, respectively. The maximum and minimum PNode prices in the integrated forward market were \$1,000.00 and -\$2,736.81 respectively.
- The top two interties congested in the integrated forward market were MALIN500 and NOB_ITC. Congestion rents in these two weeks totaled \$34,767,790.73.
- The average day-ahead ancillary service prices were between \$0.00 and \$57.59.
- Approximately 97.32 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$35.01, with a maximum price of \$1,139.99 and a minimum price of \$11.76. The maximum and minimum PNode prices in the FMM were \$1,158.56 and -\$611.41, respectively.
- Out of the total 1,344 FMM intervals, 4 intervals saw DLAP prices above \$250, and 0 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 67 intervals saw ELAP prices above \$250 and 5 intervals saw ELAP prices below -\$150.
- The average real-time FMM ELAP price was \$27.21, with a maximum price of \$1,124.85 and a minimum price of -\$153.84.
- The average real-time RTD DLAP price was \$36.95, with a maximum price of \$1,145.28 and a minimum price of -\$7.69. The maximum and minimum PNode prices in the RTD were \$1,872.43 and -\$810.32, respectively.
- Out of the total 4,032 RTD intervals, 52 intervals saw DLAP prices above \$250 and 0 interval saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 141 intervals saw ELAP prices above \$250 and 22 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$27.50, with a maximum price of \$1,059.13 and a minimum price of -\$164.65.
- Root causes for daily high price events are noted in Tables 1 and Table 2.

¹ A description of the metrics presented in this report is available at <http://www.caiso.com/Documents/WeeklyPerformanceReportMetricsKey.pdf>



Table 1 FMM Intervals	
Trade Date	Root Cause
FMM Jul 6 HE 15, 16, 20	Congestion on 30060_MIDWAY _500_24156_VINCENT _500_BR and re-dispatch of resources.

Table 2 RTD Intervals	
Trade Date	Root Cause
RTD Jun 27 HE 20	Congestion on RM_TM12_NG.

Figure 1: Day-Ahead (IFM) LAP LMP and Cleared Bid-In Demand

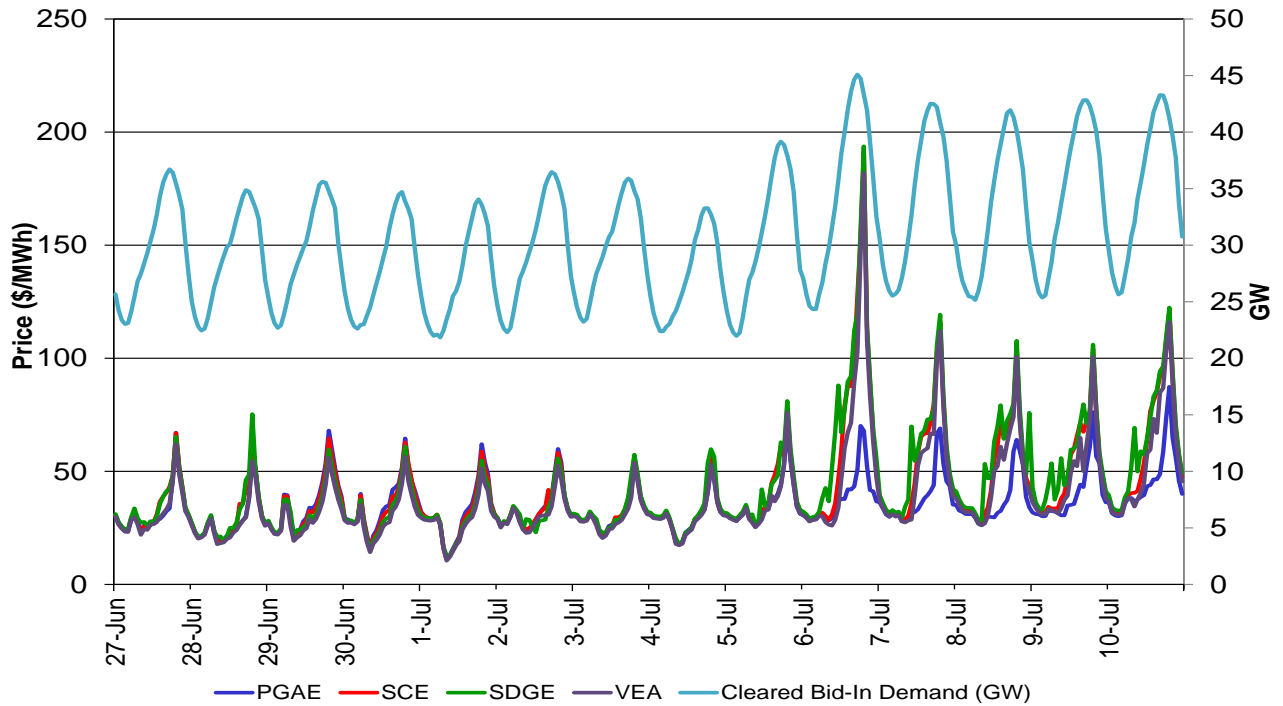




Figure 2: Day-Ahead Congestion Rents

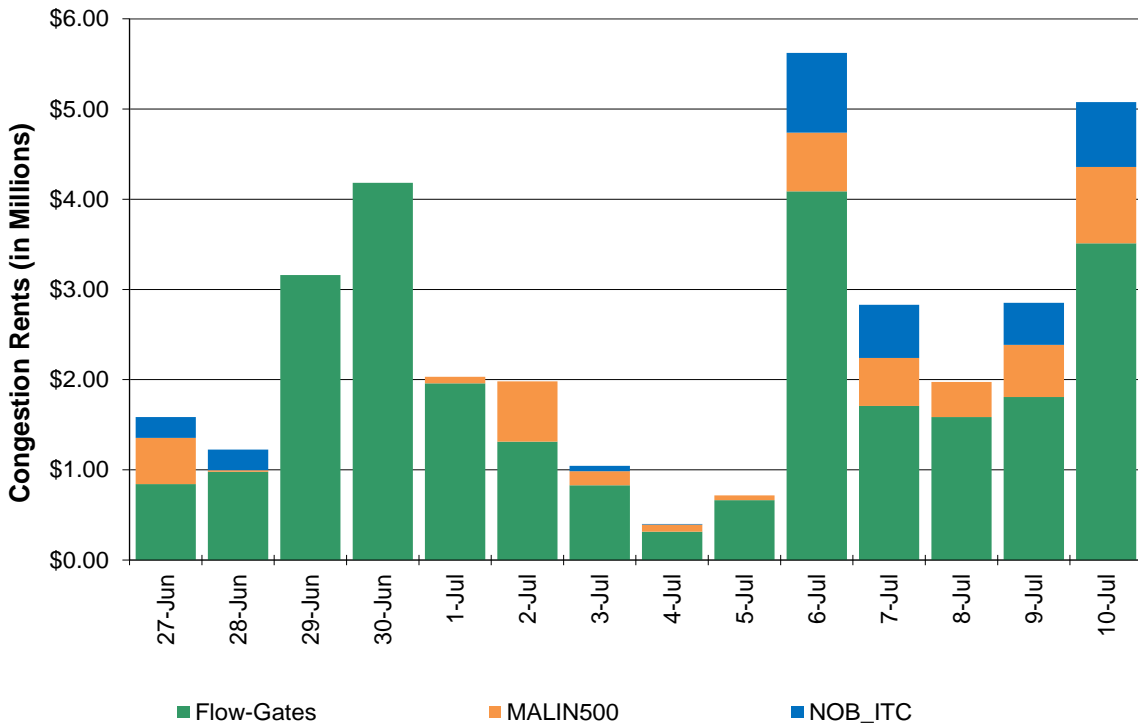


Figure 3: Day-Ahead Congestion Rents for Flow-Based Constraints

Transmission Constraint	Congestion Rent
RM_TM12_NG	\$ 10,236,521.43
6410_CP1_NG	\$ 3,961,976.05
30060_MIDWAY_500_24156_VINCENT_500_BR_1_1	\$ 2,524,859.36
24036_EAGLROCK_230_24059_GOULD_230_BR_1_1	\$ 2,497,925.52
7820_TL23040_IV_SPS_NG	\$ 1,084,016.32
24016_BARRE_230_25201_LEWIS_230_BR_1_1	\$ 719,754.03
7820_TL 230S_OVERLOAD_NG	\$ 666,254.47
33310_SANMATEO_115_33315_RAVENSWD_115_BR_1_1	\$ 536,711.36
25001_GOODRICH_230_24076_LAGUBELL_230_BR_1_1	\$ 535,741.24
33315_RAVENSWD_115_33316_CLYLDG_115_BR_1_1	\$ 506,470.61
24091_MESA CAL_230_24126_RIOHONDO_230_BR_1_1	\$ 452,910.72
36851_NORTHERN_115_36852_SCOTT_115_BR_2_1	\$ 323,591.67
34548_KETTLEMN_70.0_34552_GATES_70.0_BR_1_1	\$ 283,829.33
24016_BARRE_230_24154_VILLA PK_230_BR_1_1	\$ 256,723.74
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	\$ 254,673.56
32765_ELCTOTP2_115_33010_SOBRANTE_115_BR_1_1	\$ 244,055.08
22480_MIRAMAR_69.0_22756_SCRIPPS_69.0_BR_1_1	\$ 222,405.17
22820_SWEETWTR_69.0_22476_MIGUELTP_69.0_BR_1_1	\$ 221,975.32
24087_MAGUNDEN_230_24153_VESTAL_230_BR_1_1	\$ 185,876.05

Transmission Constraint	Congestion Rent
34112_EXCHEQUR_115_34116_LE GRAND_115_BR_1_1	\$ 109,614.08
35612_TRIMBLE_115_35616_SNJOSSEB_115_BR_1_1	\$ 102,880.09
22592_OLD TOWN_69.0_22873_VINE SUB_69.0_BR_1_1	\$ 95,248.40
22476_MIGUELTP_69.0_22456_MIGUEL_69.0_BR_1_1	\$ 75,972.09
33020_MORAGA_115_30550_MORAGA_230_XF_1_P	\$ 75,361.68
22040_BARRETT_69.0_22416_LOVELAND_69.0_BR_1_1	\$ 72,338.79
22136_CLAIRMNT_69.0_22140_CLARMTTP_69.0_BR_1_1	\$ 66,279.99
22356_IMPRLVLY_230_21025_ELCENTRO_230_BR_1_1	\$ 56,573.61
34469_GFFNJCT_70.0_34470_GIFFEN_70.0_BR_1_1	\$ 55,130.18
22500_MISSION_138_22496_MISSION_69.0_XF_1	\$ 54,063.41
35618_SN JSE A_115_35616_SNJOSSEB_115_BR_1_1	\$ 43,104.17
22208_EL CAJON_69.0_22408_LOSCOCHS_69.0_BR_1_1	\$ 38,000.22
HUMBOLDT_IMP_NG	\$ 32,351.01
34427_ATWELL_115_34701_SMYRNA_1_115_BR_1_1	\$ 31,421.79
33008_GRIZLYJ2_115_33010_SOBRANTE_115_BR_2_1	\$ 31,303.29
34860_TAFT_70.0_34943_Q356TAP_70.0_BR_1_1	\$ 28,392.19
31566_KESWICK_60.0_31582_STLLWATR_60.0_BR_1_1	\$ 26,049.65
33506_STANISLS_115_33503_FRGTNTP2_115_BR_1_1	\$ 16,722.04
OMS_5982327_TL23021_41_NG	\$ 14,774.67
22372_KEARNY_69.0_22140_CLARMTTP_69.0_BR_1_1	\$ 13,058.45
31640_TRES VIS_60.0_31718_TBLE MTN_60.0_BR_1_1	\$ 12,832.69
34116_LE GRAND_115_34134_WILSONAB_115_BR_1_1	\$ 12,478.42
31580_CASCADE_60.0_31582_STLLWATR_60.0_BR_1_1	\$ 11,374.92
31218_ER_FTNJT_115_31220_EGLE RCK_115_BR_1_1	\$ 10,932.13
35122_NWARK EF_115_35350_AMES BS_115_BR_2_1	\$ 10,765.04
OMS 6026396 HUMBOLDT_IMP	\$ 9,926.91
34418_KINGSBRG_115_34405_FRWT TAP_115_BR_1_1	\$ 9,337.75
32056_CORTINA_60.0_30451_CRTNA M_1.0_XF_1	\$ 9,336.17
OMS 4790142 Caribou Bank	\$ 8,040.95
31086_EUREKA_60.0_31090_HMBLT BY_60.0_BR_1_1	\$ 7,529.42
33936_MELNS JB_115_33951_VLYHMTP1_115_BR_1_1	\$ 7,472.79
34887_TAP SKRN_70.0_34882_SAN EMDO_70.0_BR_1_1	\$ 7,176.73
31104_CARLOTTA_60.0_31105_RIODLLTP_60.0_BR_1_1	\$ 6,145.46
34859_PRMTFMTP_70.0_34873_Q484TP_70.0_BR_1_1	\$ 6,141.14
32212_E.NICOLS_115_32214_RIO OSO_115_BR_1_1	\$ 5,679.16
31576_WNTU PMS_60.0_31578_LOMS JCT_60.0_BR_1_1	\$ 5,491.18
31464_COTWDPGE_115_30105_COTTNWD_230_XF_1	\$ 5,100.11
31080_HUMBOLDT_60.0_31088_HMBLT JT_60.0_BR_1_1	\$ 5,062.54
32218_DRUM_115_32244_BRNSWKT2_115_BR_2_1	\$ 4,742.68
33380_JEFFERSN_60.0_33387_WOODSIDE_60.0_BR_1_1	\$ 4,239.75
31640_TRES VIS_60.0_31644_BIGGSJCT_60.0_BR_1_1	\$ 4,097.34
31334_CLER LKE_60.0_31338_KONOCTI6_60.0_BR_1_1	\$ 4,025.86
32326_ENCL TAP_60.0_32332_PEASE_60.0_BR_1_1	\$ 3,288.24
35618_SN JSE A_115_35620_EL PATIO_115_BR_1_1	\$ 3,082.47
31336_HPLND JT_60.0_31206_HPLND JT_115_XF_2	\$ 2,837.89
31604_COTTONWD_60.0_31611_RAWSON_60.0_BR_2_1	\$ 2,045.50

Transmission Constraint	Congestion Rent
24036_EAGLROCK_230_24147_SYLMAR S_230_BR_1_1	\$ 1,711.92
31722_GLENN_60.0_31734_HAMILTON_60.0_BR_2_1	\$ 667.23
31564_FRNCHGLH_60.0_31566_KESWICK_60.0_BR_1_1	\$ 321.97
30300_TABLMTN_230_30301_TBL MT2M_1.0_XF_2	\$ 306.48
22372_KEARNY_69.0_22496_MISSION_69.0_BR_1_1	\$ 211.27
22831_SYCAMORE_138_22124_CHCARITA_138_BR_1_1	\$ 203.36
38136_MARBLE_69.0_64281_MARBLSP_60.0_XF_1	\$ 16.13

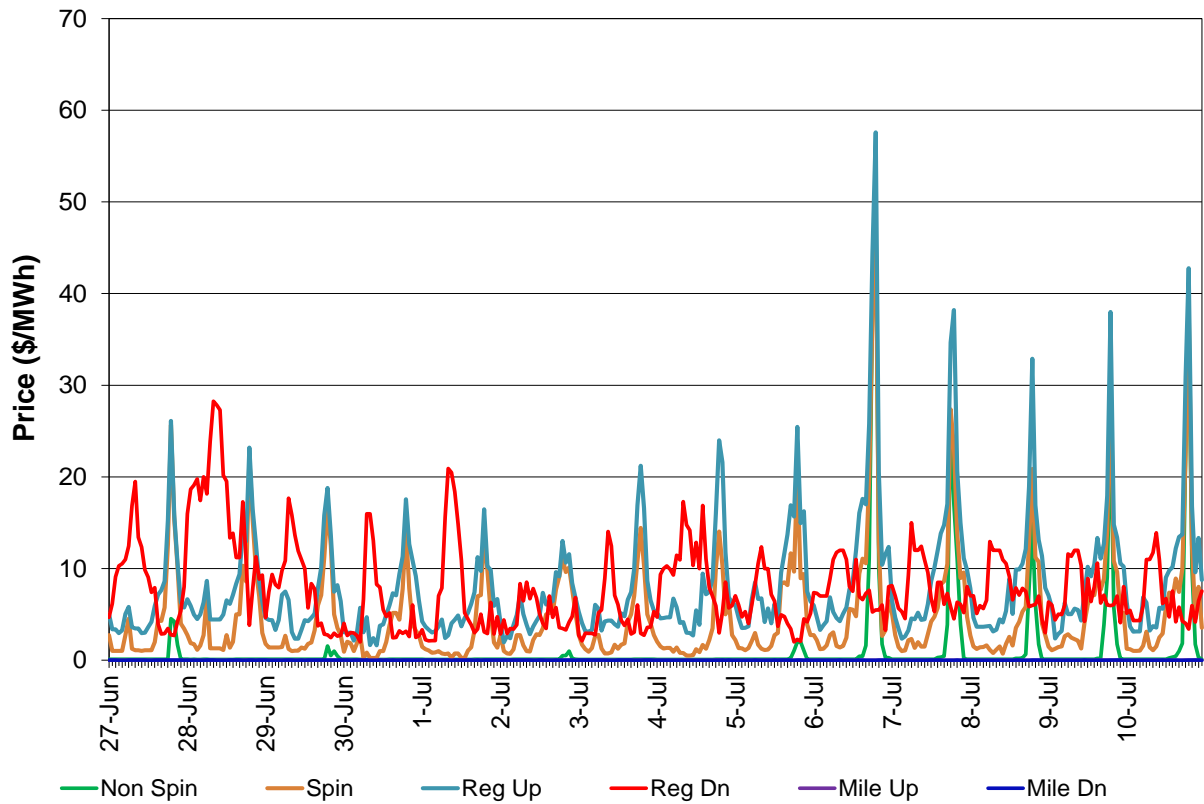
Figure 4: Day-Ahead (IFM) Average A/S Price




Figure 5: Day-Ahead Average RUC Price

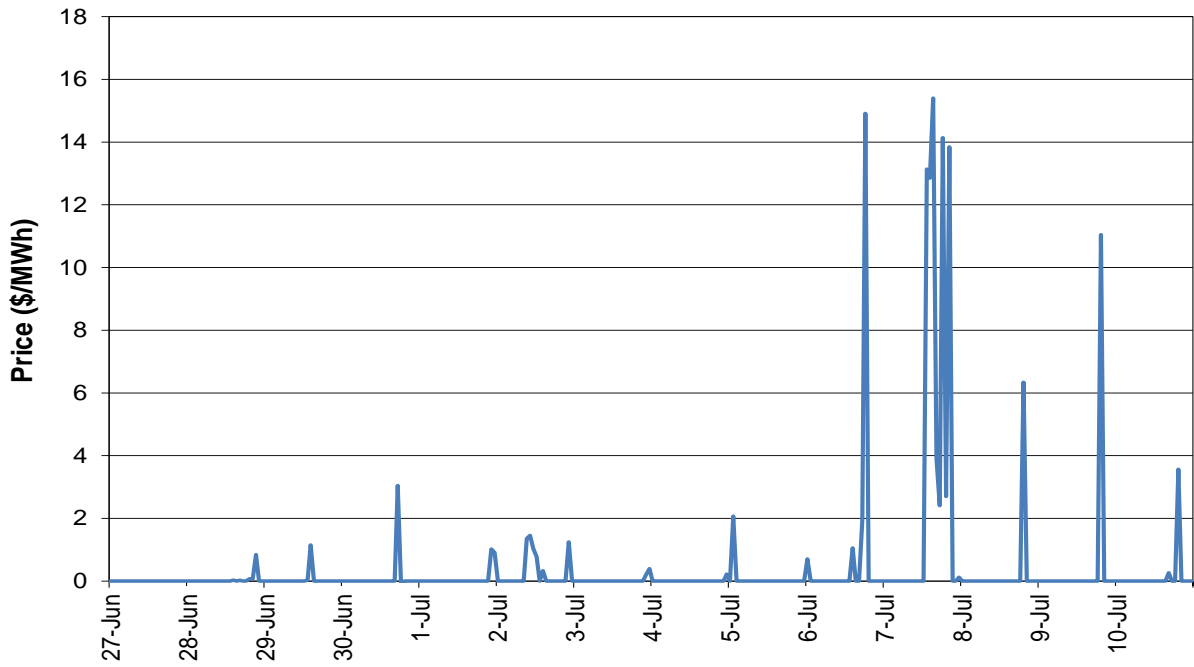


Figure 6: Real-Time FMM Average A/S Price

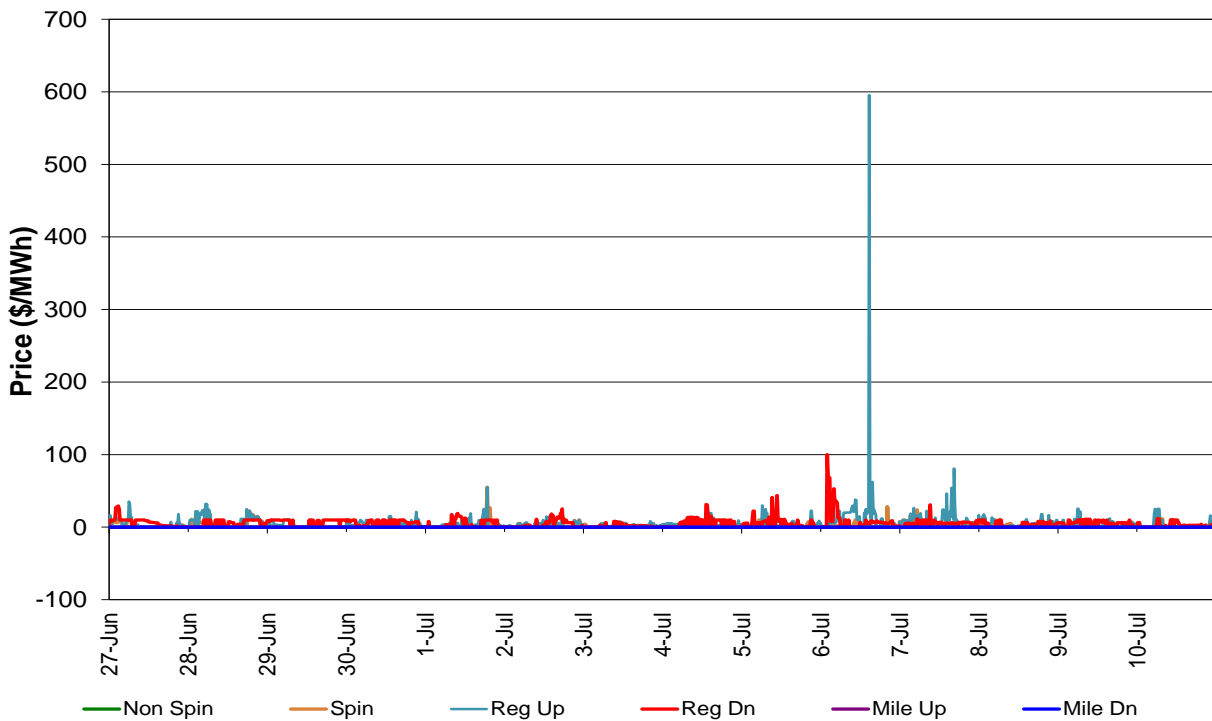




Figure 7: Real-Time FMM DLAP LMP

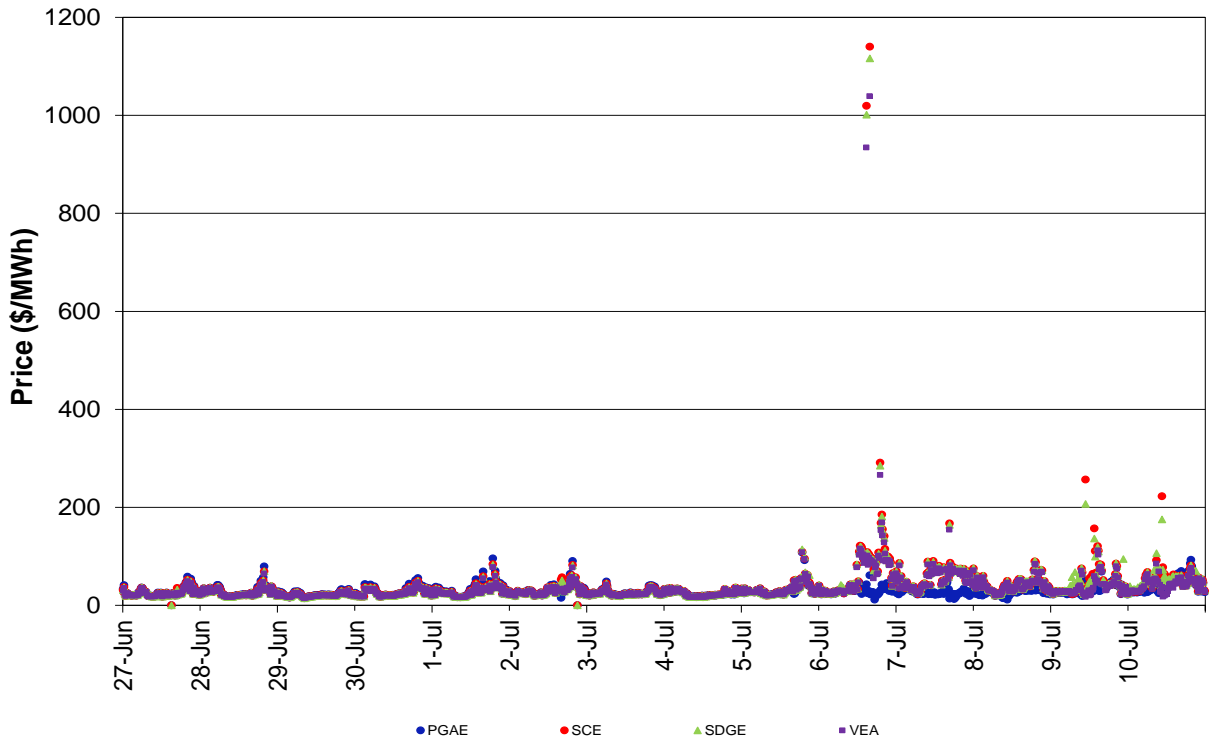


Figure 8: Real-Time RTD DLAP LMP

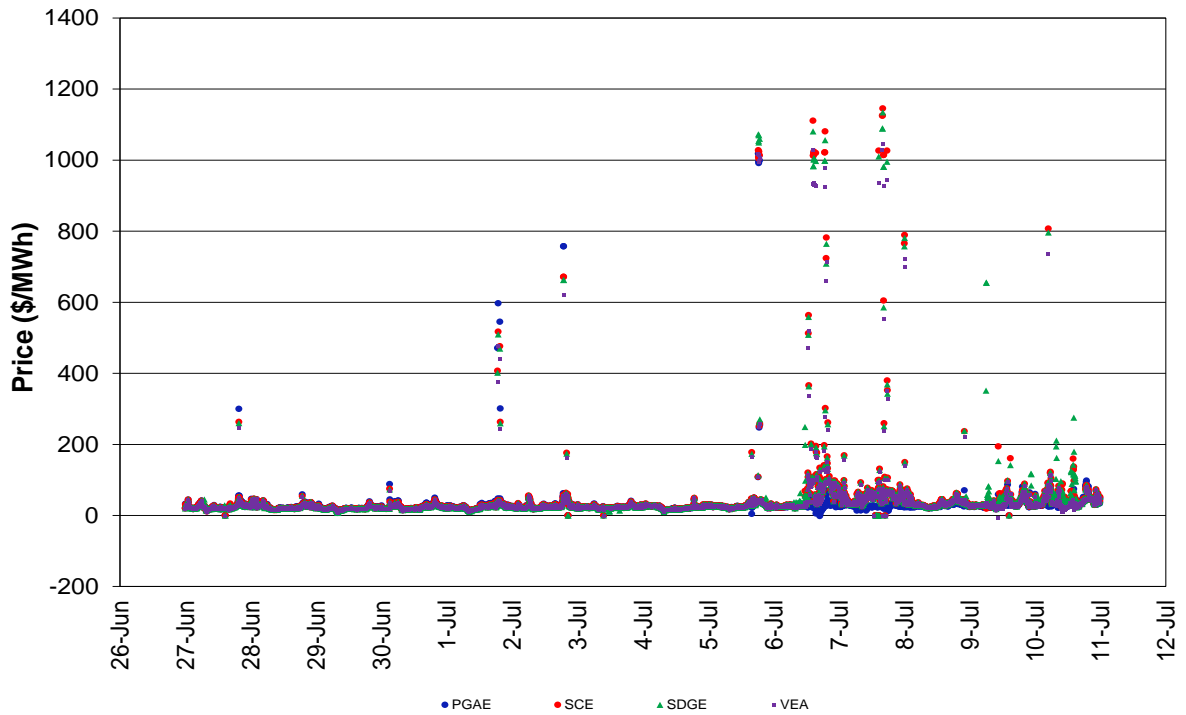


Figure 9: Real-Time FMM ELAP LMP

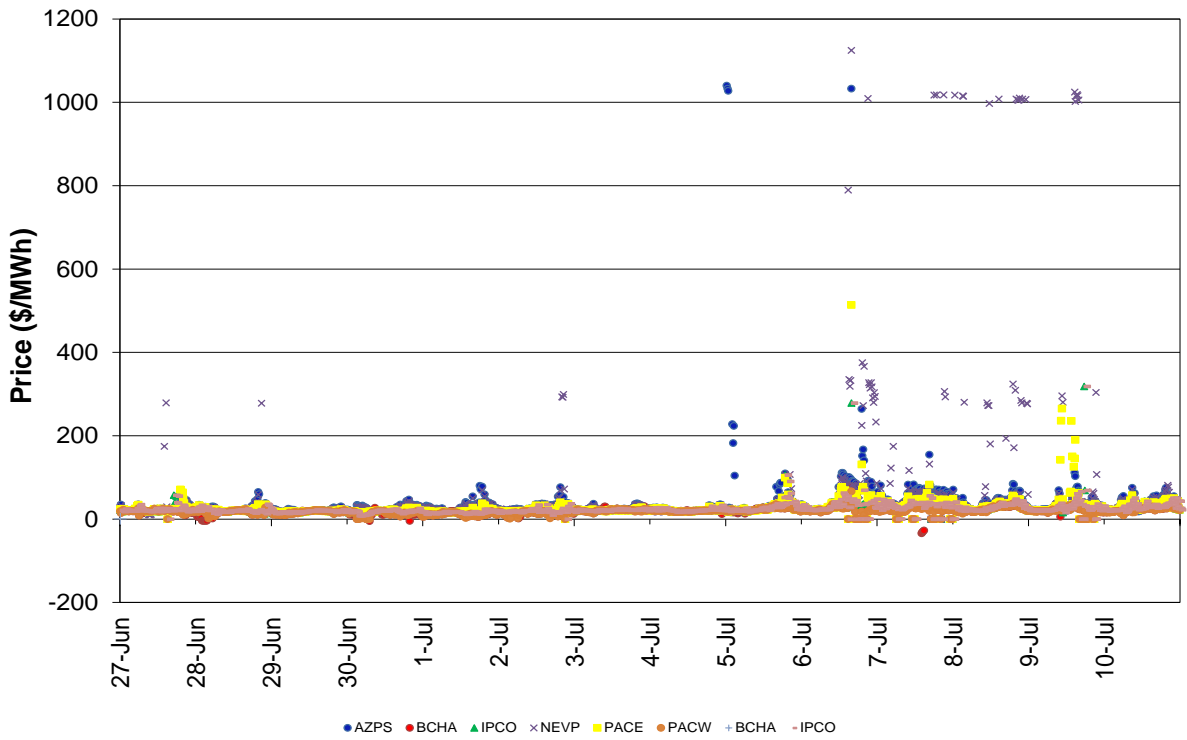


Figure 10: Real-Time RTD ELAP LMP

