

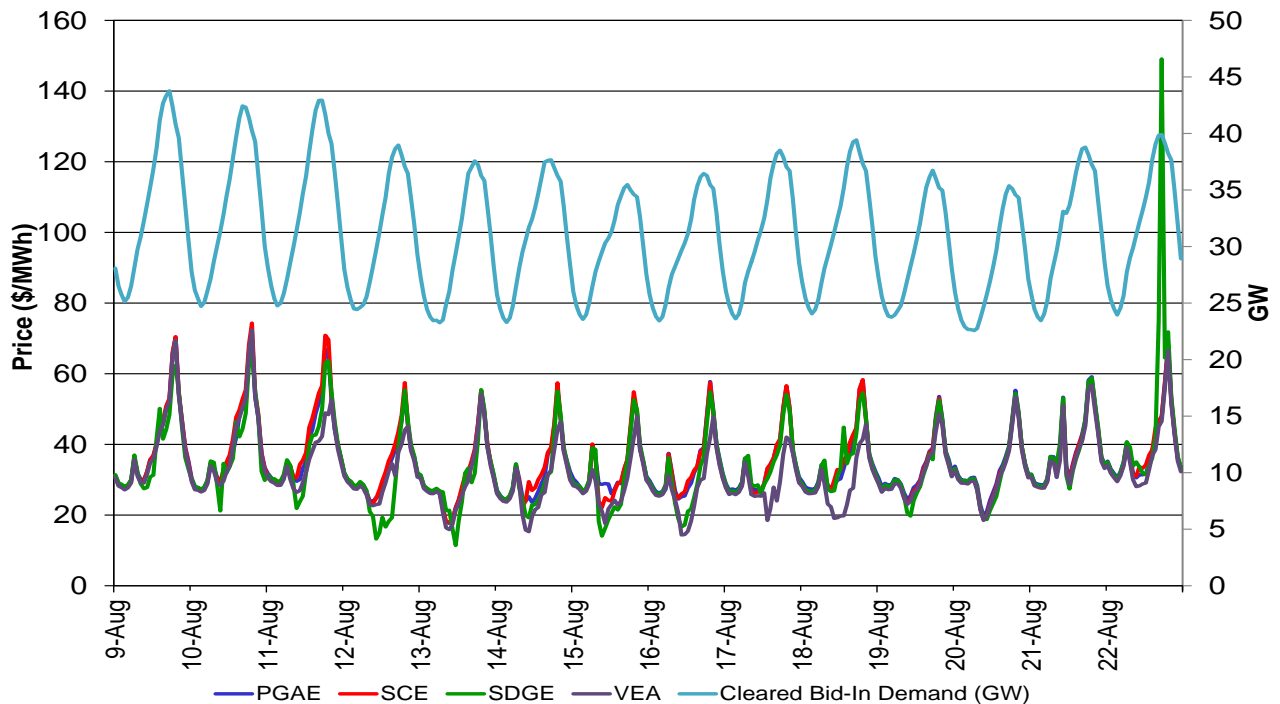
## Market Highlights<sup>1</sup> (August 9–August 22)

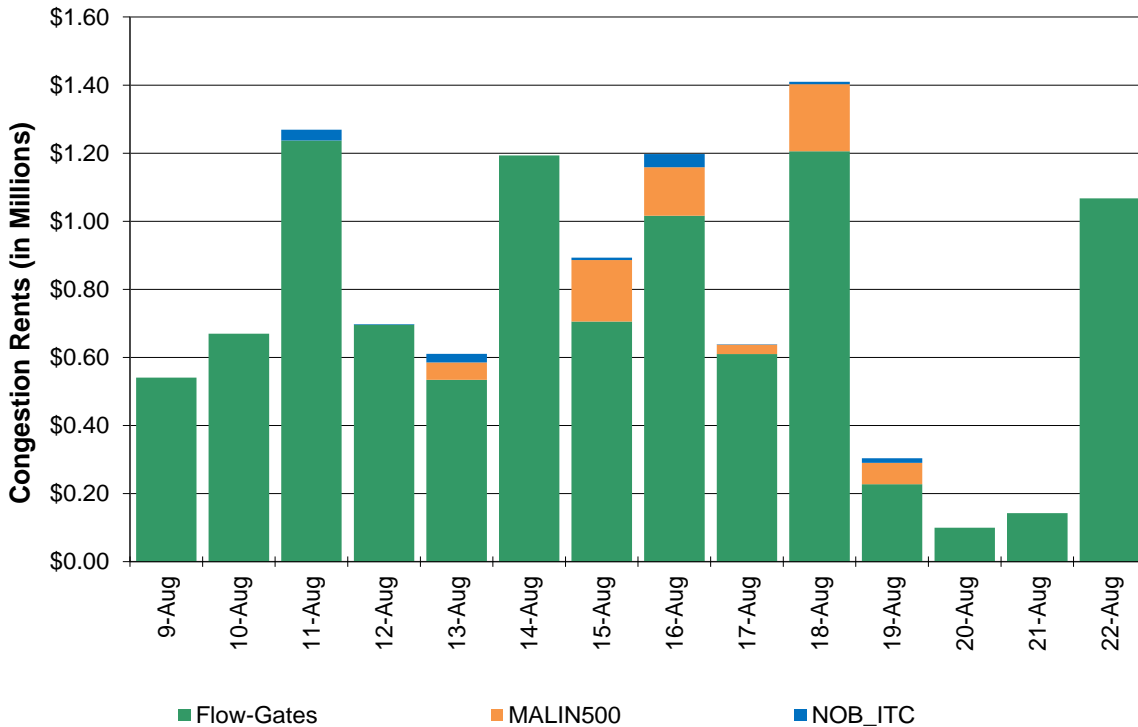
- The average DLAP price in the integrated forward market was \$34.20. The maximum and minimum DLAP prices were \$149.10 and \$11.39, respectively. The maximum and minimum PNode prices in the integrated forward market were \$86.97 and -\$22.90 respectively.
- The top two interties congested in the integrated forward market were MALIN500 and NOB\_ITC. Congestion rents in these two weeks totaled \$10,750,804.29.
- The average day-ahead ancillary service prices were between \$0.00 and \$32.93.
- Approximately 99.29 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$31.06, with a maximum price of \$127.42 and a minimum price of -\$10.80. The maximum and minimum PNode prices in the FMM were \$1,242.70 and -\$312.73, respectively.
- Out of the total 1,344 FMM intervals, 0 intervals saw DLAP prices above \$250, and 0 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 12 intervals saw ELAP prices above \$250 and 1 intervals saw ELAP prices below -\$150.
- The average real-time FMM ELAP price was \$26.67, with a maximum price of \$987.80 and a minimum price of -\$161.73.
- The average real-time RTD DLAP price was \$37.14, with a maximum price of \$1,045.52 and a minimum price of -\$101.38. The maximum and minimum PNode prices in the RTD were \$1,287.60 and -\$537.86, respectively.
- Out of the total 4,032 RTD intervals, 40 intervals saw DLAP prices above \$250 and 0 interval saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 51 intervals saw ELAP prices above \$250 and 17 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$28.83, with a maximum price of \$1,006.36 and a minimum price of -\$163.95.
- Root cause for daily high price events are noted in Tables 1.

Table 1 RTD Intervals	
Trade Date	Root Cause
RTD Aug 9 HE 19	Load changes and renewable deviation
RTD Aug 11 HE 16	Renewable deviation and re-dispatch of resources
RTD Aug 11 HE 19	Load changes and renewable deviation

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

Table 1 RTD Intervals	
Trade Date	Root Cause
RTD Aug 14 HE 19	Load changes and renewable deviation
RTD Aug 14 HE 20	Reduction of net imports and renewable deviation
RTD Aug 15 HE 19	Reduction of net imports, re-dispatch of resources, and renewable deviation
RTD Aug 16 HE 8	Renewable deviation and load changes
RTD Aug 16 HE 19	Renewable deviation
RTD Aug 17 HE 8	Congestion on 24086_LUGO _500_26105_VICTORVL_500_BR_1_1, renewable deviation, and load changes
RTD Aug 18 HE 7	Congestion on 24086_LUGO _500_26105_VICTORVL_500_BR_1_1
RTD Aug 18 HE 16; Aug 19 HE 19; Aug 20 HE 16, 18	Load changes and renewable deviation
Aug 20 HE 21	Load changes
Aug 21 HE 18	Renewable deviation and re-dispatch of resources

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


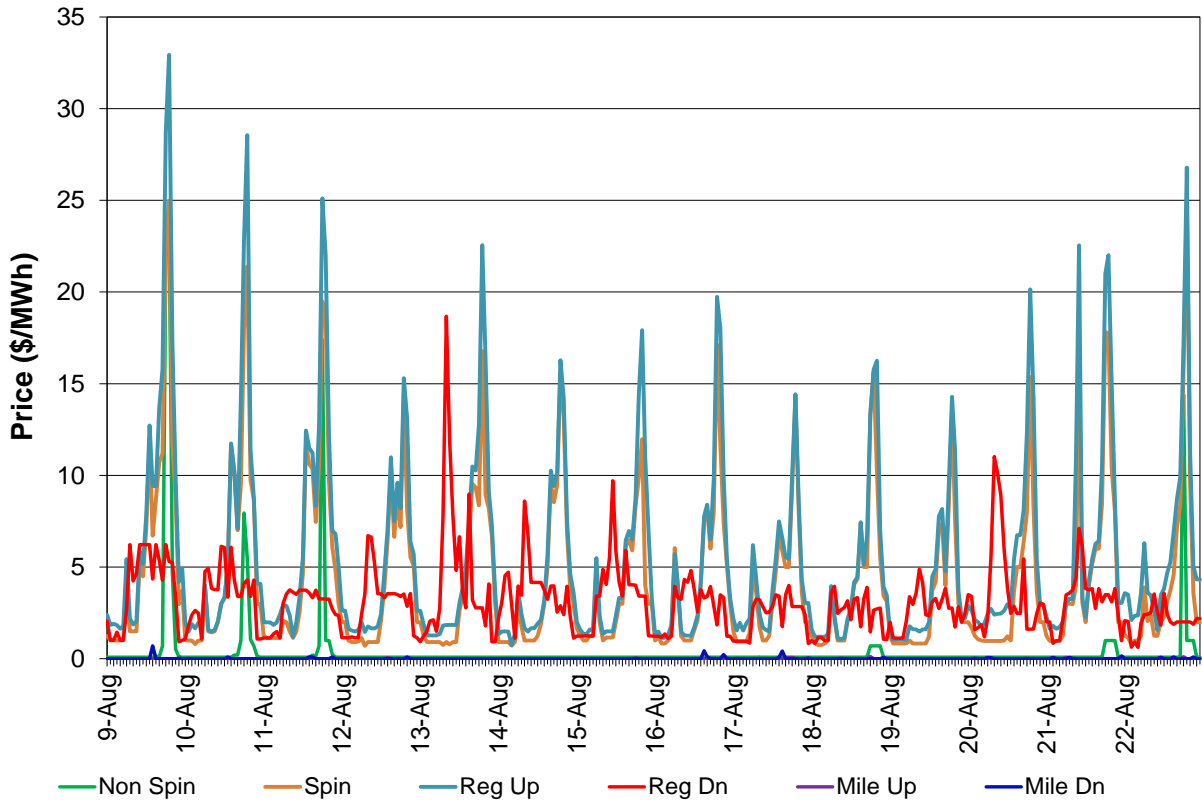
**Figure 2: Day-Ahead Congestion Rents**

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

Transmission Constraint	Congestion Rent
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	\$ 3,582,341.05
24086_LUGO_500_26105_VICTORVL_500_BR_1_1	\$ 3,252,809.10
24016_BARRE_230_24154_VILLA PK_230_BR_1_1	\$ 996,764.90
7820_TL_230S_OVERLOAD_NG	\$ 353,577.99
30515_WARNERVL_230_30800_WILSON_230_BR_1_1	\$ 237,403.46
24016_BARRE_230_25201_LEWIS_230_BR_1_1	\$ 211,937.38
22208_EL CAJON_69.0_22408_LOSCOCHS_69.0_BR_1_1	\$ 205,234.14
30523_CC SUB_230_30525_C.COSTA_230_BR_1_1	\$ 137,243.55
22300_FRIARS_138_22500_MISSION_138_BR_1_1	\$ 115,268.25
22831_SYCAMORE_138_22832_SYCAMORE_230_XF_1	\$ 99,780.56
OMS_4864567_CP1	\$ 96,776.64
99254_J.HINDS2_230_24806_MIRAGE_230_BR_1_1	\$ 94,814.58
31512_BIG BEN2_115_31516_WYANDJT2_115_BR_1_2	\$ 92,445.93
34112_EXCHEQUR_115_34116_LE GRAND_115_BR_1_1	\$ 87,124.32
22256_ESCNDIDO_69.0_22724_SANMRCOS_69.0_BR_1_1	\$ 79,923.21
31334_CLER LKE_60.0_31338_KONOCIT6_60.0_BR_1_1	\$ 68,999.87
31336_HPLND JT_60.0_31370_CLVRDLJT_60.0_BR_1_1	\$ 46,286.97
6110_SOL7_NG	\$ 43,264.75

**Figure 3: Day-Ahead Congestion Rents for Flow-Based Constraints (cont)**

<b>Transmission Constraint</b>	<b>Congestion Rent</b>
30060_MIDWAY_500_29402_WIRLWIND_500_BR_1_2	\$ 30,099.72
31566_KESWICK_60.0_31582_STLLWATR_60.0_BR_1_1	\$ 17,494.85
30055_GATES1_500_30900_GATES_230_XF_11_P	\$ 15,600.84
HUMBOLDT_IMP_NG	\$ 11,501.02
34548_KETTLEMN_70.0_34552_GATES_70.0_BR_1_1	\$ 9,189.46
32212_E.NICOLS_115_32214_RIO OSO_115_BR_1_1	\$ 7,438.20
31227_HGHLNDJ2_115_31950_CORTINA_115_BR_1_1	\$ 6,929.74
31338_KONOCTI6_60.0_31344_EGLE RCK_60.0_BR_1_1	\$ 6,259.01
34427_ATWELL_115_34701_SMYRNA 1_115_BR_1_1	\$ 6,157.53
31378_FULTON_60.0_31382_FTCHMTNP_60.0_BR_1_1	\$ 5,331.86
31220_EGLE RCK_115_31228_HOMSTKTP_115_BR_1_1	\$ 4,651.38
38000_LODI_230_30622_EIGHT MI_230_BR_1_1	\$ 4,258.81
34469_GFFNJCT_70.0_34470_GIFFEN_70.0_BR_1_1	\$ 4,044.29
31580_CASCADE_60.0_31582_STLLWATR_60.0_BR_1_1	\$ 2,660.27
31214_GEYERS56_115_31220_EGLE RCK_115_BR_1_1	\$ 1,804.69
33047_CC JCT1_115_33045_FIBRJCT1_115_BR_1_1	\$ 1,727.58
32218_DRUM_115_32244_BRNSWKT2_115_BR_2_1	\$ 1,557.58
31108_SWNS FLT_60.0_31110_BRDGVLE_60.0_BR_1_1	\$ 1,340.19
30805_BORDEN_230_30810_GREGG_230_BR_1_1	\$ 1,142.84
38136_MARBLE_69.0_64281_MARBLSP_60.0_XF_1	\$ 869.91
34807_ARVINJ2_115_34758_LAMONT_115_BR_1_1	\$ 780.23
34134_WILSONAB_115_30800_WILSON_230_XF_1	\$ 597.46
34116_LE GRAND_115_34134_WILSONAB_115_BR_1_1	\$ 540.61
30500_BELLOTA_230_30515_WARNERVL_230_BR_1_1	\$ 399.69
34887_TAP SKRN_70.0_34882_SAN EMDO_70.0_BR_1_1	\$ 271.41
34107_CERTANTP_115_34101_CERTANJ2_115_BR_1_1	\$ 171.94
33936_MELNS JB_115_33951_VLYHMTP1_115_BR_1_1	\$ 129.48
<b>Totals</b>	<b>\$ 9,944,947.22</b>

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



**Figure 5: Day-Ahead Average RUC Price**

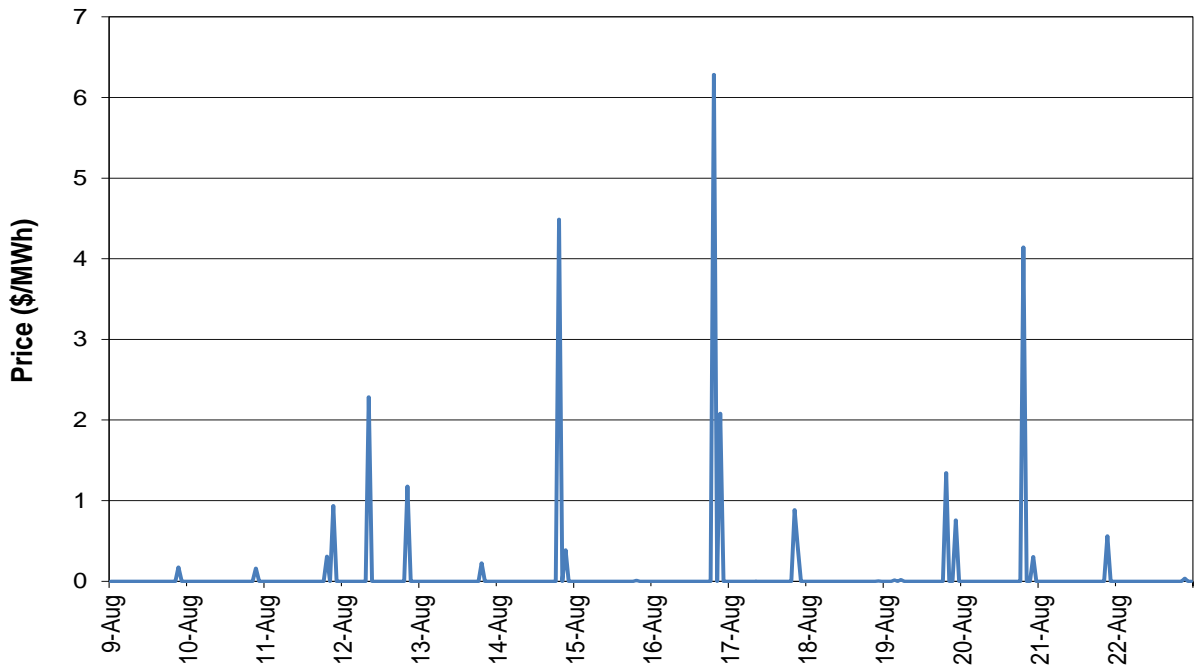




Figure 6: Real-Time FMM Average A/S Price

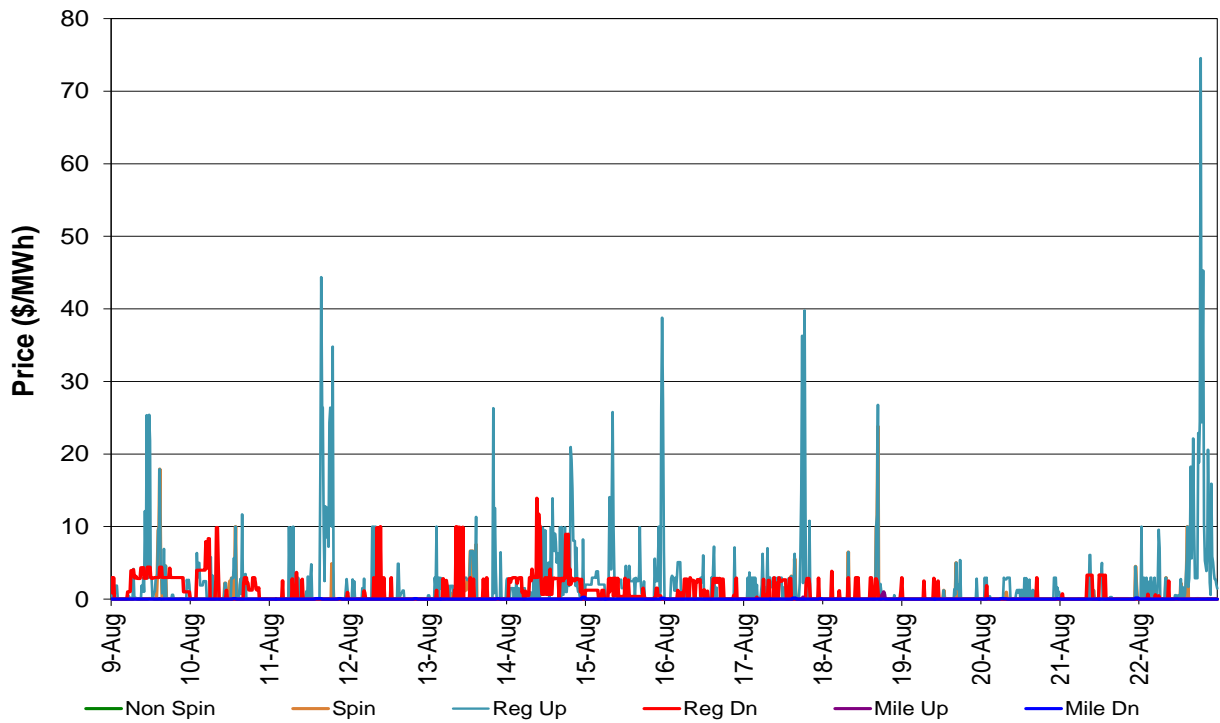
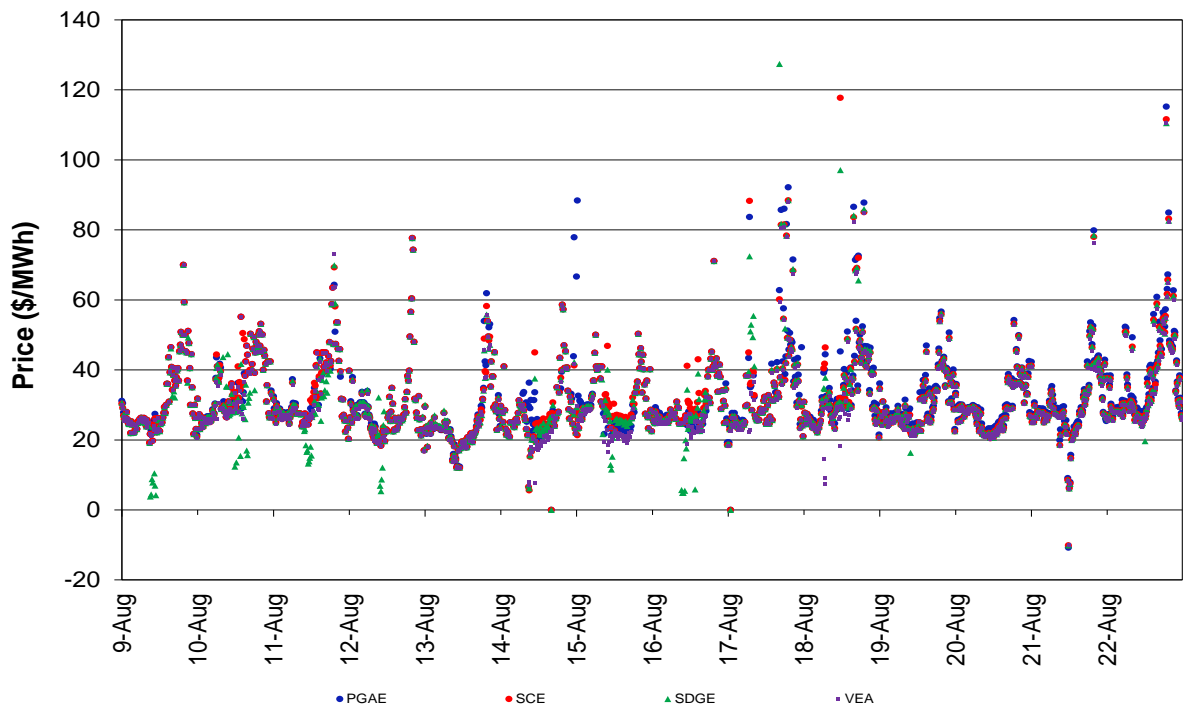
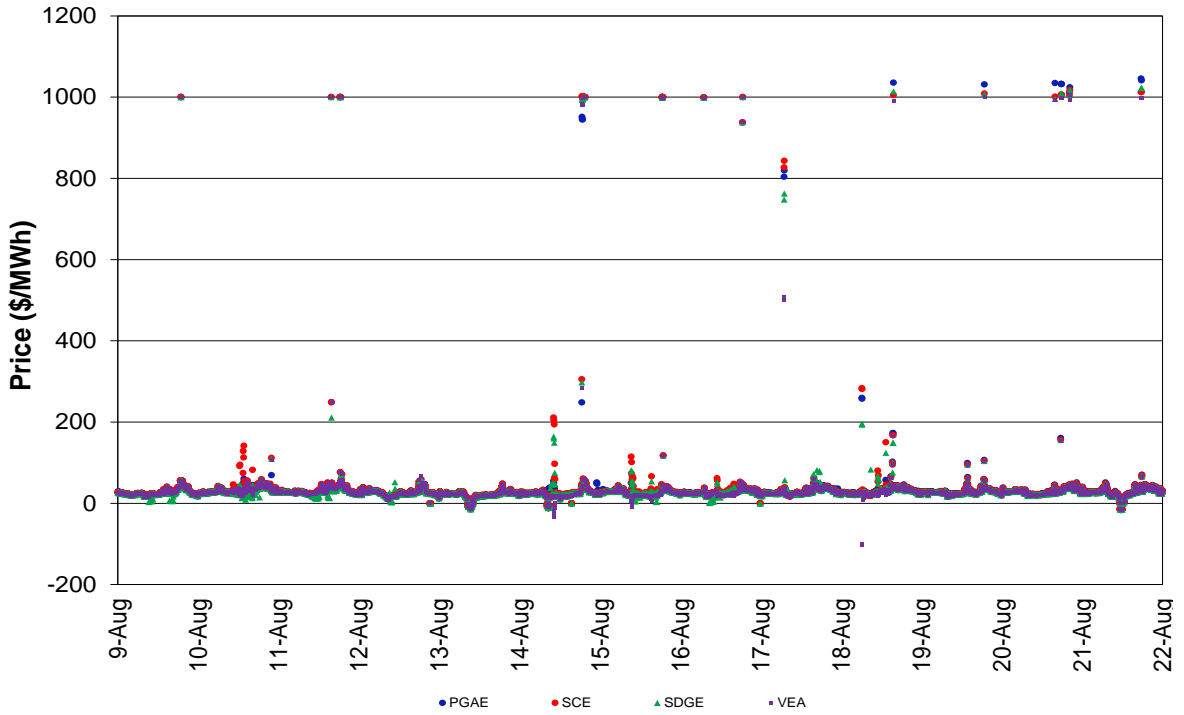


Figure 7: Real-Time FMM DLAP LMP



**Figure 8: Real-Time RTD DLAP LMP**



**Figure 9: Real-Time FMM ELAP LMP**

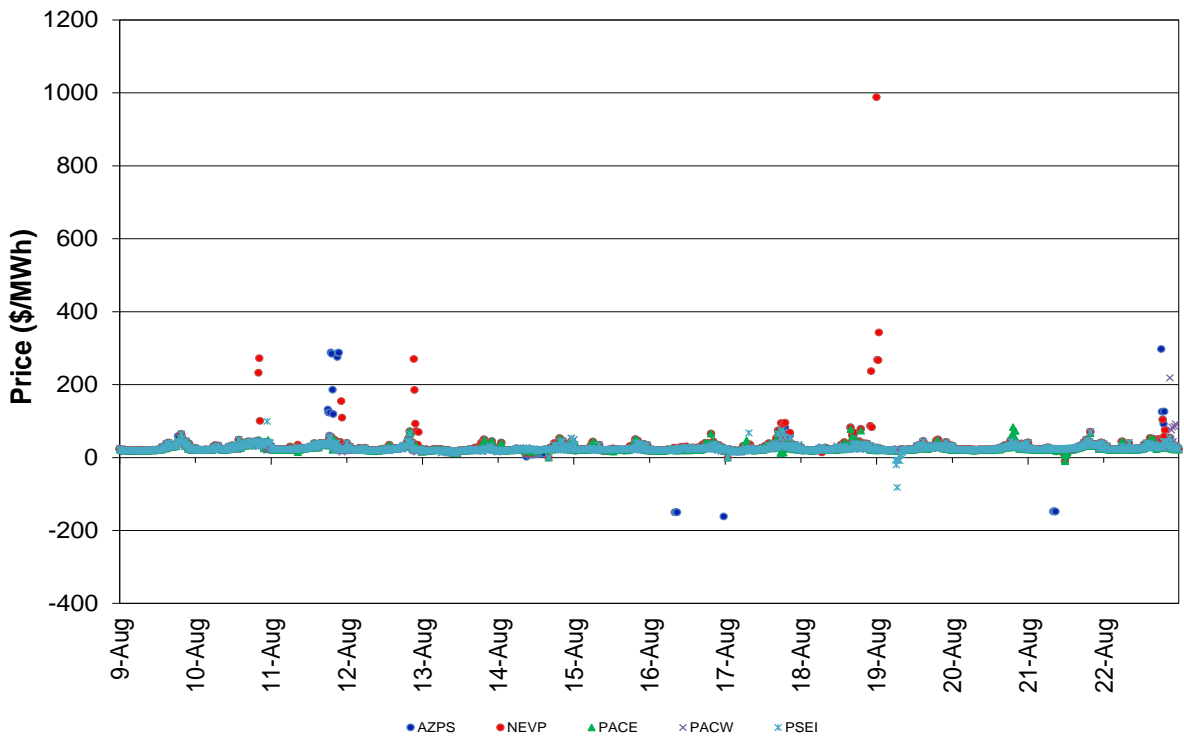


Figure 10: Real-Time RTD ELAP LMP

