

Market Highlights¹ (October 4–October 17)

- The average DLAP price in the integrated forward market was \$36.59. The maximum and minimum DLAP prices were \$155.87 and \$5.65, respectively. The maximum and minimum PNode prices in the integrated forward market were \$158.69 and -\$24.03 respectively.
- The top two interties congested in the integrated forward market were MALIN500 and PALOVRDE_ITC. Congestion rents in these two weeks totaled \$18,263,082.46.
- The average day-ahead ancillary service prices were between \$0.00 and \$107.64.
- Approximately 95.53 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$41.44, with a maximum price of \$1,456.59 and a minimum price of -\$59.14. The maximum and minimum PNode prices in the FMM were \$1,698.70 and -\$468.52, respectively.
- Out of the total 1,344 FMM intervals, 12 intervals saw DLAP prices above \$250, and 0 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 28 intervals saw ELAP prices above \$250 and 3 intervals saw ELAP prices below -\$150. The average real-time FMM ELAP price was \$30.36, with a maximum price of \$1,000.00 and a minimum price of -\$155.76.
- The average real-time RTD DLAP price was \$33.29, with a maximum price of \$1,049.20 and a minimum price of -\$178.96. The maximum and minimum PNode prices in the RTD were \$1,412.64 and -\$791.13, respectively.
- Out of the total 4,032 RTD intervals, 36 intervals saw DLAP prices above \$250 and 1 interval saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 59 intervals saw ELAP prices above \$250 and 13 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$26.77, with a maximum price of \$1,001.99 and a minimum price of -\$201.85.
- Root cause for daily high price events are noted in Table 1.

Table 1 FMM Intervals	
Trade Date	Root Cause
FMM Oct 4 HE 22	Re-dispatch of resources.
FMM Oct 5 HE 19	Load changes and generator outage.
FMM Oct 9 HE 19, 20;	Load changes, renewable deviation, and congestion on OMS 4646_OP-

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
Oct 10 HE 19	6610
FMM Oct 16 HE 18, 19, 20	Load changes and generator outages.

Table 1 RTD Intervals	
Trade Date	Root Cause
RTD Oct 4 HE 18	Load changes, renewable deviation, generator outage.
RTD Oct 5 HE 18	Load changes and generator outage
RTD Oct 6 HE 23	Load changes, reduction of net imports, intertie outage
RTD Oct 8 HE 18	Renewable deviation
RTD Oct 9 HE 18	Load changes, net imports decrease, renewable deviation, and congestion on OMS 4646112_OP-6610 nomogram.
RTD Oct 9 HE 19	Load changes, congestion on OMS 4646112_OP-6610 nomogram, and renewable deviation.
RTD Oct 12 HE 14	Congestion on 24016_BARRE _230_24154_VILLA PK_230_BR_1_1
RTD Oct 12 HE 22 Int 1	Load changes, generator outage, congestion on 24016_BARRE _230_24154_VILLA PK_230_BR_1_1
RTD Oct 12 HE 22 Int 12	Re-dispatch of resource and generator outage.
RTD Oct 13 HE 9; Oct 14 HE 18	Load changes and renewable deviation.
RTD Oct 13 HE 22	Load changes
RTD Oct 16 HE 19, 20	Load changes and generator outage



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

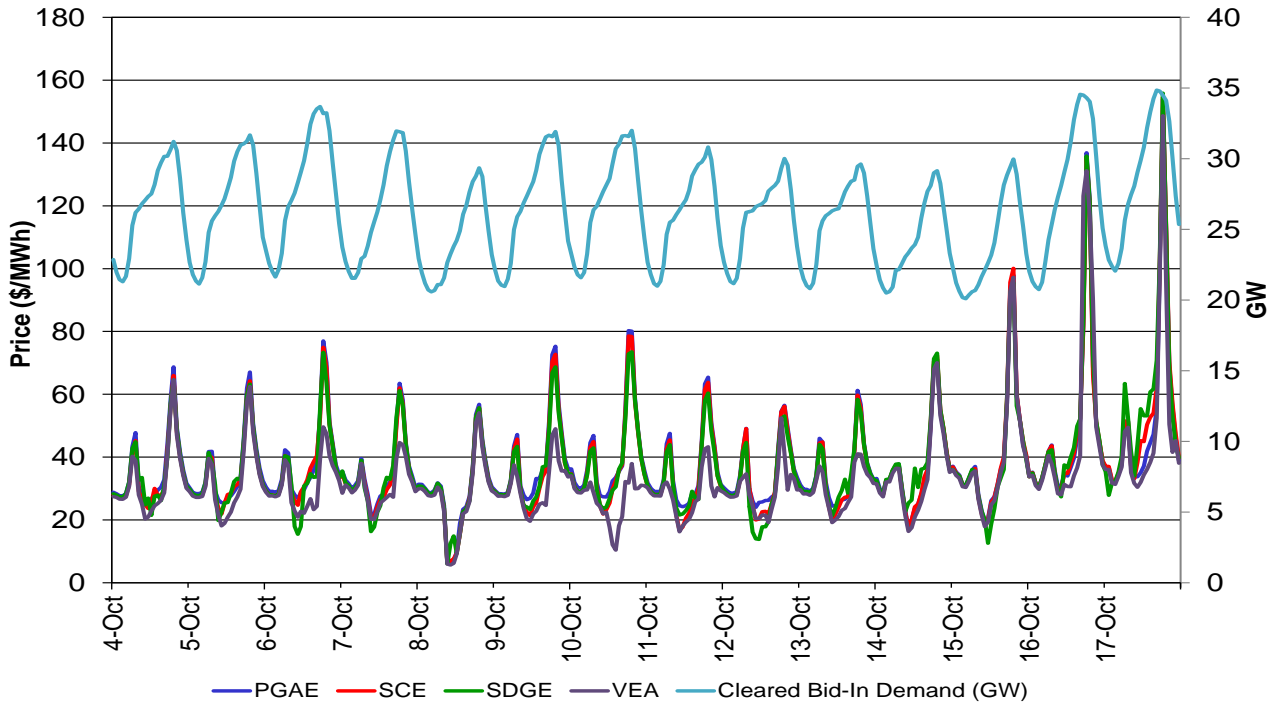


Figure 2: Day-Ahead Congestion Rents

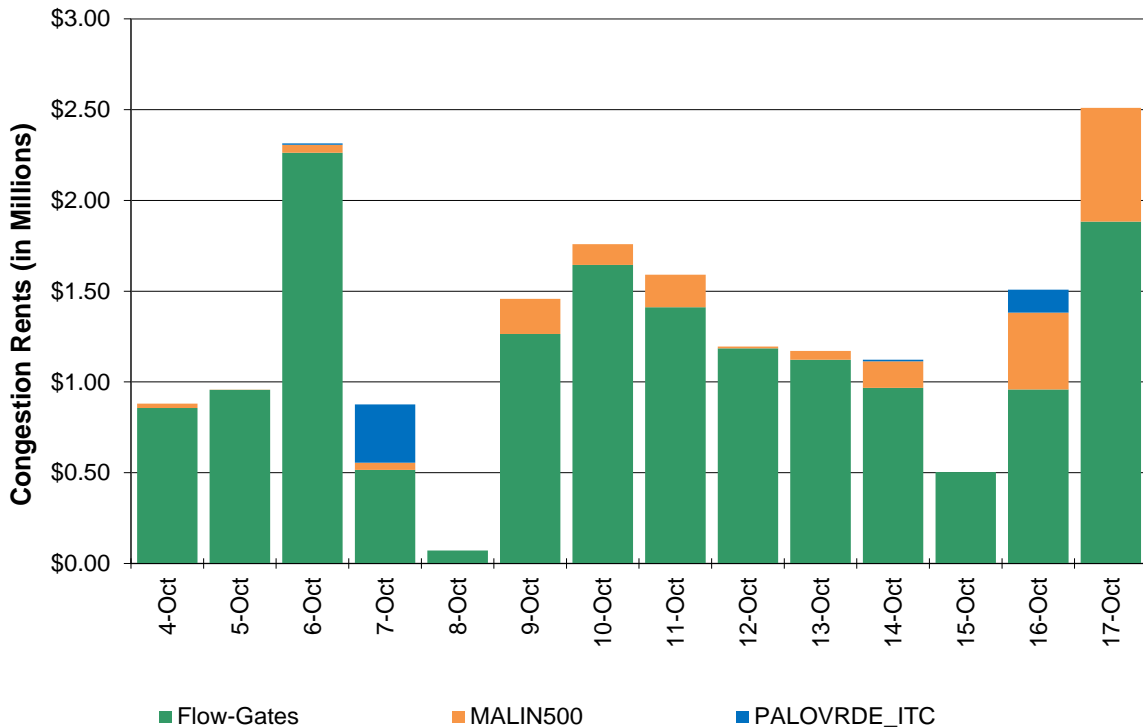


Figure 3: Day-Ahead Congestion Rents for Flow-Based Constraints

Transmission Constraint	Congestion Rent
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	\$ 4,062,473.54
OMS 4646112_OP-6610	\$ 2,966,698.94
24016_BARRE_230_24154_VILLA PK_230_BR_1_1	\$ 2,085,228.19
24086_LUGO_500_26105_VICTORVL_500_BR_1_1	\$ 1,741,143.79
31334_CLER LKE_60.0_31338_KONOCIT6_60.0_BR_1_1	\$ 809,221.65
6310_CP6_NG	\$ 537,331.69
31220_EGLE RCK_115_31228_HOMSTKTP_115_BR_1_1	\$ 528,661.38
24801_DEVERS_500_24804_DEVERS_230_XF_1_P	\$ 510,155.05
31236_FULTON_115_31239_MONROE_115_BR_1_1	\$ 508,782.93
30735_METCALF_230_30042_METCALF_500_XF_13	\$ 419,516.47
7820_TL 230S_OVERLOAD_NG	\$ 375,529.04
24804_DEVERS_230_24901_VSTA_230_BR_2_1	\$ 217,830.04
34112_EXCHEQUR_115_34116_LE GRAND_115_BR_1_1	\$ 141,876.27
31336_HPLND JT_60.0_31370_CLVRDLJT_60.0_BR_1_1	\$ 133,954.18
31227_HGHLNDJ2_115_31950_CORTINA_115_BR_1_1	\$ 110,747.78
22208_EL CAJON_69.0_22408_LOSCOCHS_69.0_BR_1_1	\$ 74,078.95
31336_HPLND JT_60.0_31206_HPLND JT_115_XF_2	\$ 45,900.75
32326_ENCL TAP_60.0_32332_PEASE_60.0_BR_1_1	\$ 39,495.19
7320_CP6_NG	\$ 38,824.85
22480_MIRAMAR_69.0_22756_SCRIPPS_69.0_BR_1_1	\$ 35,508.65
31110_BRDGVILLE_60.0_31112_FRUITLND_60.0_BR_1_1	\$ 25,952.50
31556_TRINITY_60.0_31555_MSS TAP2_60.0_BR_1_1	\$ 25,834.86
34116_LE GRAND_115_34134_WILSONAB_115_BR_1_1	\$ 24,402.51
31218_ER_FTNJT_115_31220_EGLE RCK_115_BR_1_1	\$ 18,627.80
34469_GFFNJCT_70.0_34470_GIFFEN_70.0_BR_1_1	\$ 15,838.18
33916_CURTISS_115_33917_FBERBORD_115_BR_1_1	\$ 14,031.87
31092_MPLE CRK_60.0_31093_HYMPOMJT_60.0_BR_1_1	\$ 12,262.87
38000_LODI_230_30622_EIGHT MI_230_BR_1_1	\$ 10,410.53
34859_PRMTFMTP_70.0_34873_Q484TP_70.0_BR_1_1	\$ 8,046.76
22716_SANLUSRY_230_22232_ENCINA_230_BR_1_1	\$ 7,151.19
30735_METCALF_230_30042_METCALF_500_XF_12	\$ 7,028.30
33914_MI-WUK_115_33917_FBERBORD_115_BR_1_1	\$ 5,006.50
22500_MISSION_138_22496_MISSION_69.0_XF_1	\$ 4,296.82
33530_KASSONJ2_115_33548_TRACY_115_BR_1_1	\$ 3,418.94
36075_COBURN_60.0_30760_COBURN_230_XF_1	\$ 3,303.95
22260_ESCNDIDO_230_22844_TALEGA_230_BR_1_1	\$ 3,152.28
31104_CARLOTTA_60.0_31105_RIODLLTP_60.0_BR_1_1	\$ 2,854.04
31378_FULTON_60.0_31382_FTCHMTNP_60.0_BR_1_1	\$ 2,630.68
31228_HOMSTKTP_115_31227_HGHLNDJ2_115_BR_1_1	\$ 2,521.62
33936_MELNS JB_115_33951_VLYHMTP1_115_BR_1_1	\$ 2,495.89
31225_HGHLNDJ1_115_31222_REDBUD_115_BR_1_1	\$ 2,238.58

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

Transmission Constraint	Congestion Rent
31338_KONOCT16_60.0_31344_EGLE RCK_60.0_BR_1_1	\$ 2,138.25
33932_MELONES_115_33936_MELNS JB_115_BR_1_1	\$ 2,109.77
HUMBOLDT_IMP_NG	\$ 2,100.68
33920_RCTRK J_115_33922_R.TRACK_115_BR_1_1	\$ 1,798.81
31306_WILLITS_60.0_31308_LYTNVLL_60.0_BR_1_1	\$ 1,604.55
33541_AEC_TP1_115_33540_TESLA_115_BR_1_1	\$ 1,528.23
32208_GLEAF TP_115_32214_RIO OSO_115_BR_1_1	\$ 1,038.77
31080_HUMBOLDT_60.0_31092_MPLE CRK_60.0_BR_1_1	\$ 938.51
31214_GEYERS56_115_31220_EGLE RCK_115_BR_1_1	\$ 843.69
31090_HMBLT BY_60.0_31100_EEL RIVR_60.0_BR_1_1	\$ 806.22
33950_RVRBK TP_115_33934_TULLOCH_115_BR_1_1	\$ 804.81
32380_WEMR SWS_60.0_32382_FORST HL_60.0_BR_1_1	\$ 572.23
31108_SWNS FLT_60.0_31110_BRDGVLL_60.0_BR_1_1	\$ 453.19
31114_FRT SWRD_60.0_31116_GRBRVLL_60.0_BR_1_1	\$ 271.11
35648_LLAGAS_115_35650_GILROY F_115_BR_1_1	\$ 247.82
Total	\$ 15,601,722.63

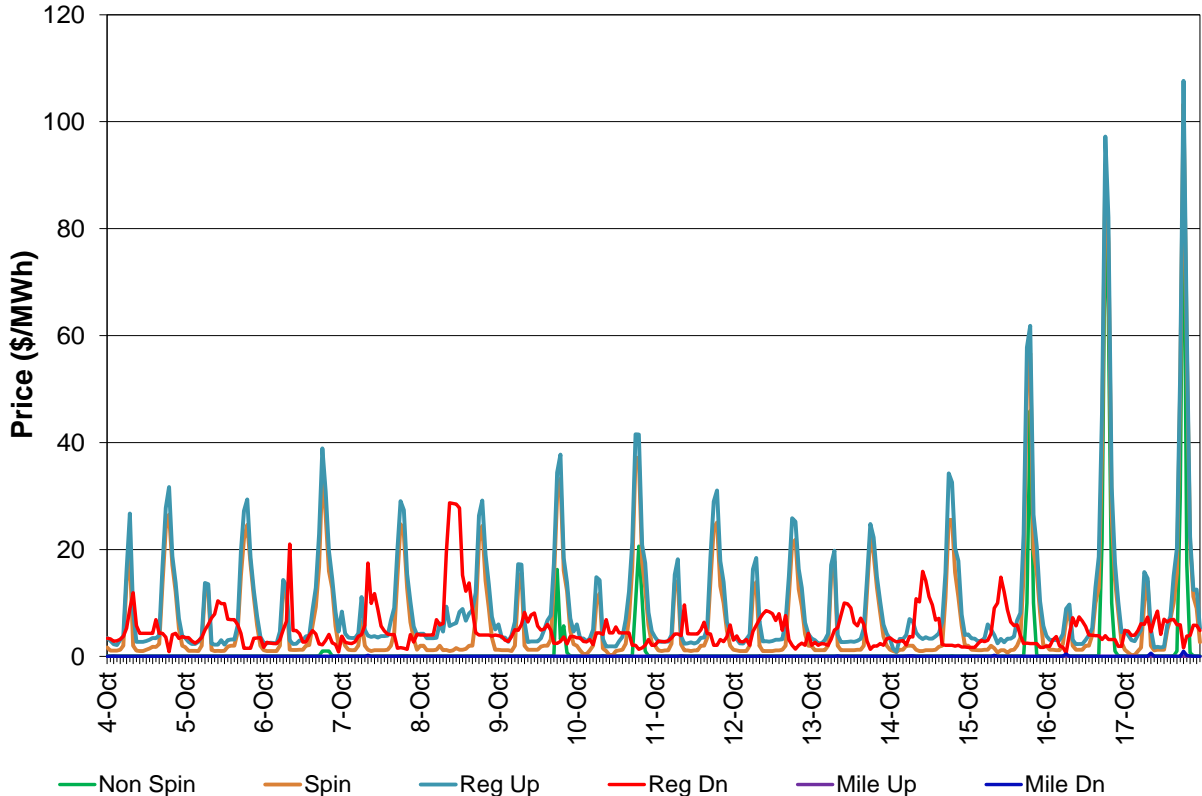
Figure 4: Day-Ahead (IFM) Average A/S Price


Figure 5: Day-Ahead Average RUC Price

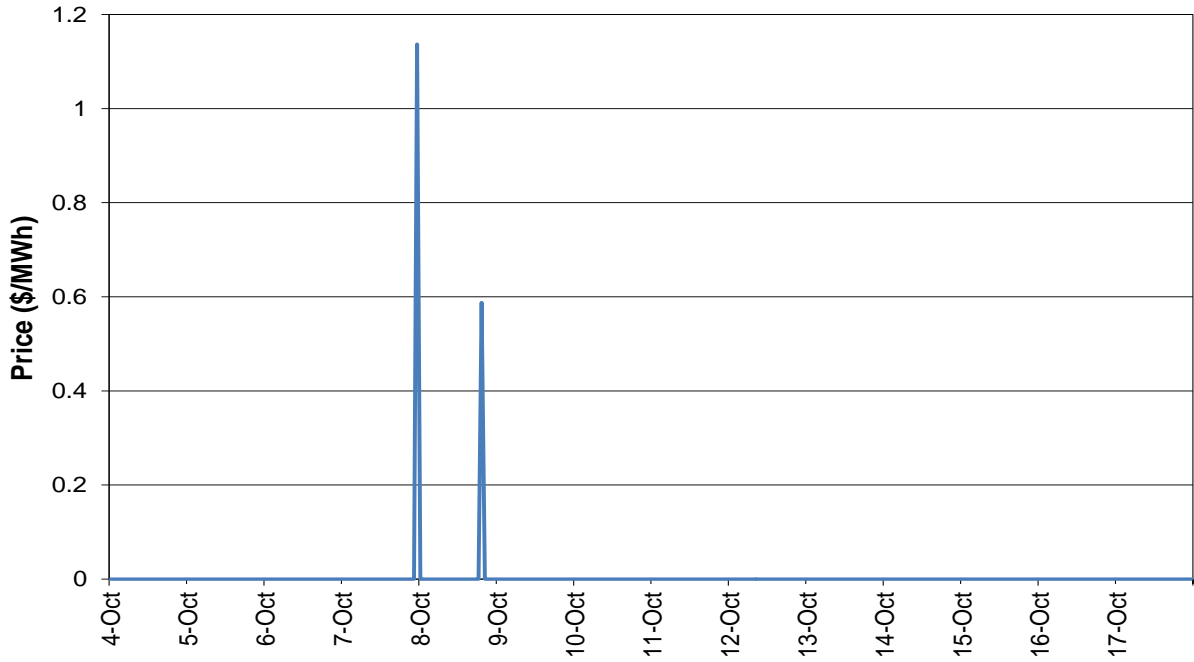


Figure 6: Real-Time FMM Average A/S Price

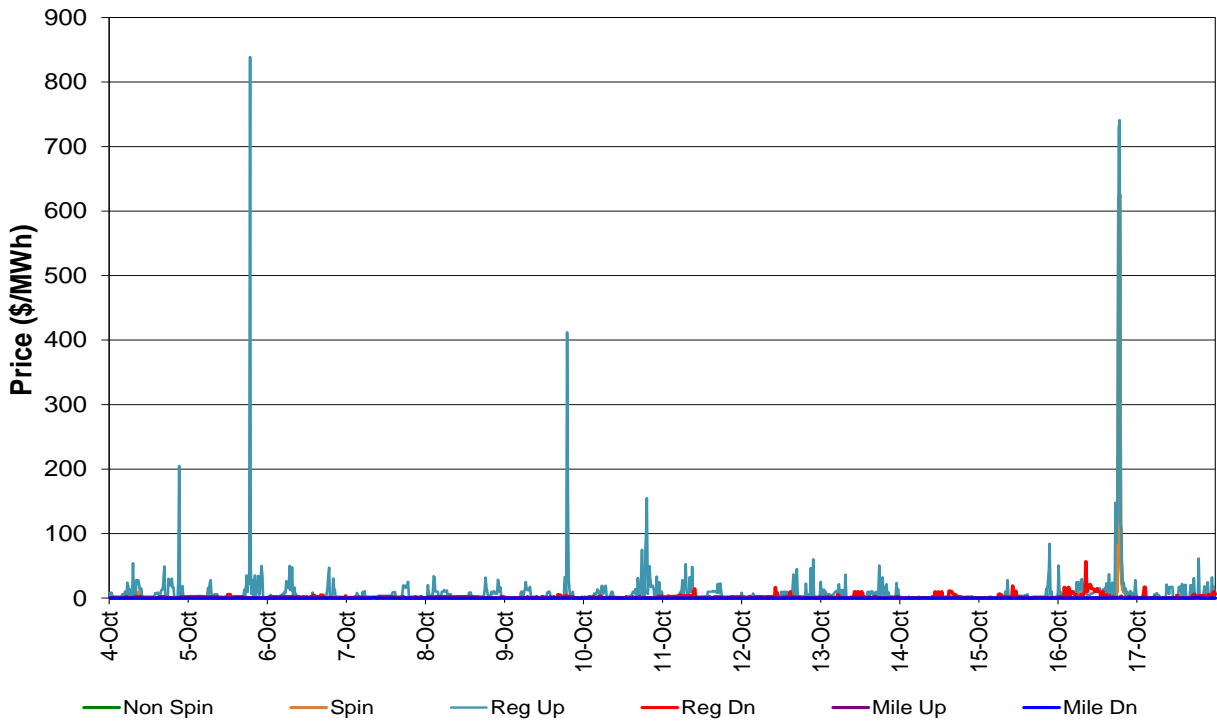


Figure 7: Real-Time FMM DLAP LMP

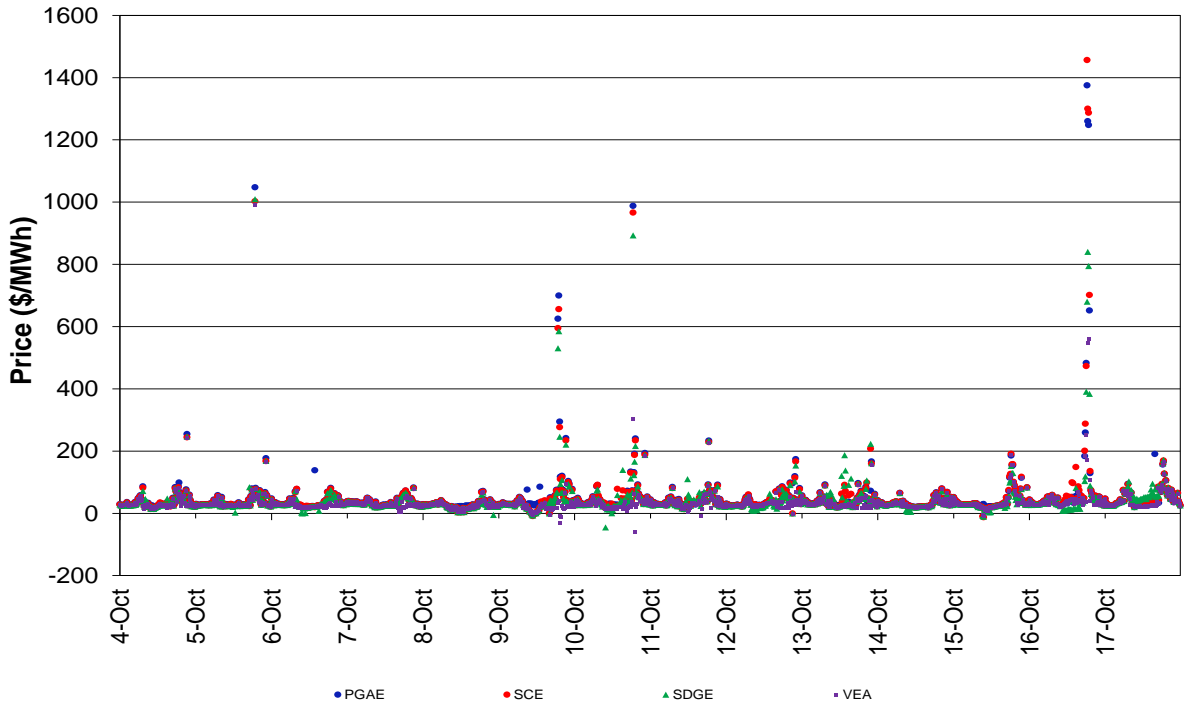


Figure 8: Real-Time RTD DLAP LMP

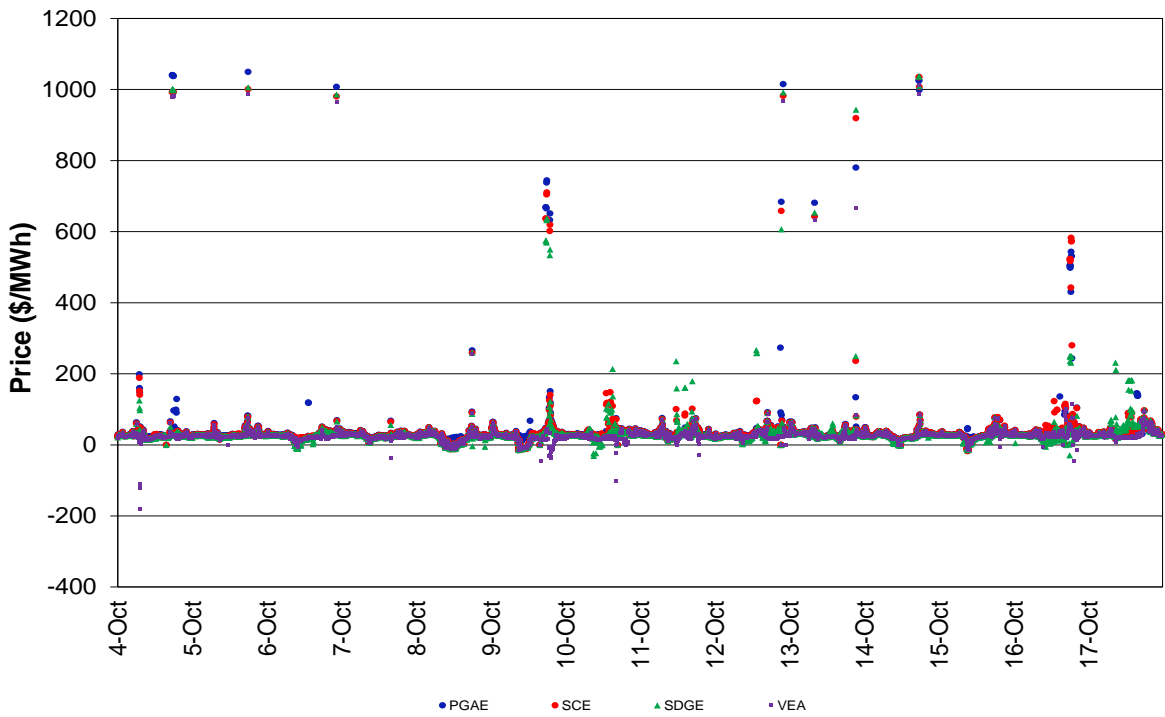


Figure 9: Real-Time FMM ELAP LMP

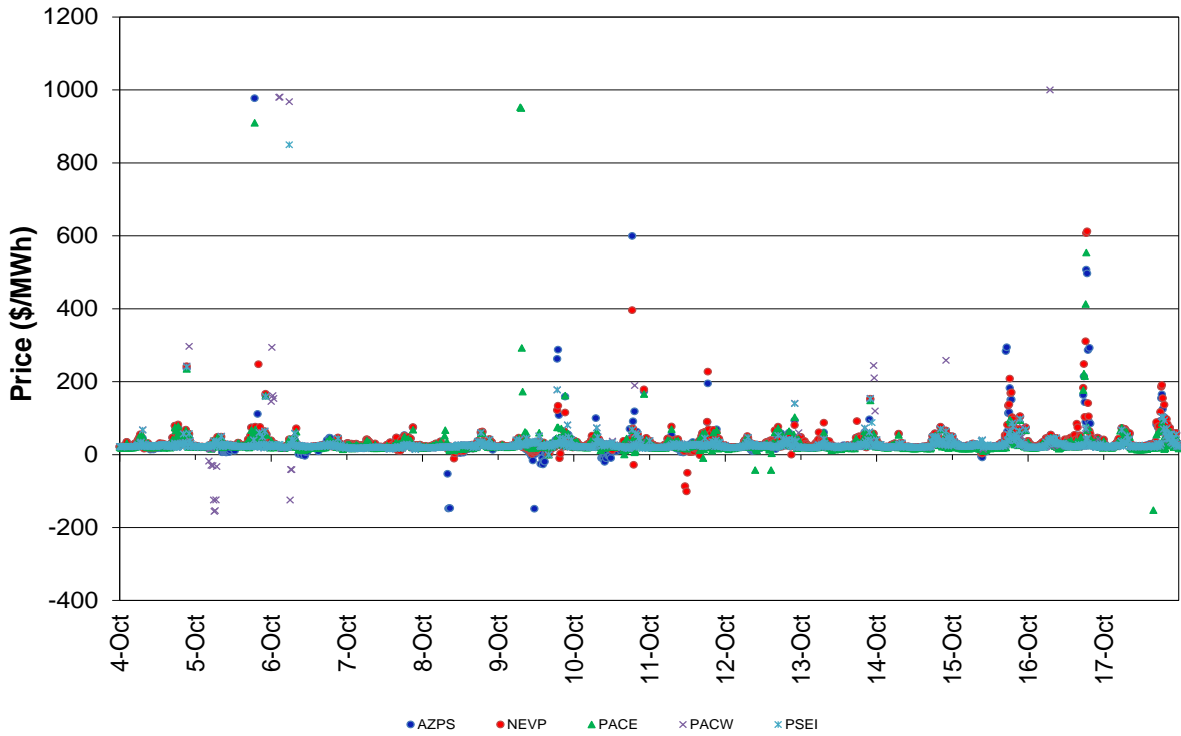


Figure 10: Real-Time RTD ELAP LMP

