



Market Highlights¹ (February 22–March 7)

- The average DLAP price in the integrated forward market was \$22.93. The maximum and minimum DLAP prices were \$66.52 and -\$7.23, respectively. The maximum and minimum PNode prices in the integrated forward market were \$160.00 and -\$749.14 respectively.
- The top two interties congested in the integrated forward market were MALIN500 and NOB_ITC. Congestion rents in these two weeks totaled \$9,071,494.33.
- The average day-ahead ancillary service prices were between \$0.00 and \$135.55.
- Approximately 72.45 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$20.63, with a maximum price of \$189.27 and a minimum price of -\$343.91. The maximum and minimum PNode prices in the FMM were \$4,726.66 and -\$1,094.99, respectively.
- Out of the total 1,344 FMM intervals, 0 intervals saw DLAP prices above \$250, and 5 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 4 intervals saw ELAP prices above \$250 and 20 intervals saw ELAP prices below -\$150. The average real-time FMM ELAP price was \$26.45, with a maximum price of \$4,726.66 and a minimum price of -\$316.38.
- The average real-time RTD DLAP price was \$19.51, with a maximum price of \$1,082.87 and a minimum price of -\$295.04. The maximum and minimum PNode prices in the RTD were \$1,476.60 and -\$788.69, respectively.
- Out of the total 4,032 RTD intervals, 41 intervals saw DLAP prices above \$250 and 32 intervals saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 84 intervals saw ELAP prices above \$250 and 66 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$22.73, with a maximum price of \$1,025.62 and a minimum price of -\$266.19.
- Root cause for daily high price events are noted in Table 1.

Table 1 RTD Intervals	
Trade Date	Root Cause
RTD Feb 22 HE 15	Load changes and renewable deviation
RTD Feb 22 HE 17	Contingency run due to renewables deviation and load changes
RTD Feb 24 HE 6	Load changes and renewable deviation
RTD Feb 25 HE 6, 7	Renewable deviation

¹ 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 Feb 25 HE 14	Load changes and renewable deviation
RTD Feb 25 HE 15	Load changes
RTD Feb 27 HE 13, 14	Renewable deviation and load changes
RTD Feb 28 HE 9	Congestion on PATH15_S-N and renewable deviation
RTD Feb 28 HE 18, 19	Load changes and renewable deviation
RTD Mar 1 HE 7	Renewable deviation and re-dispatch of resources
RTD Mar 2 HE 7	Re-dispatch of resources
RTD Mar 3 HE 17	Load changes and renewable deviation
RTD Mar 5 HE 8	Contingency run due to renewables deviation and load changes
RTD Mar 5 HE 18; Mar 6 HE 6	Renewable deviation and load changes
RTD Mar 6 HE 7	Renewable deviation and reduction of net import
RTD Mar 7 HE 13	Renewable deviation and load changes

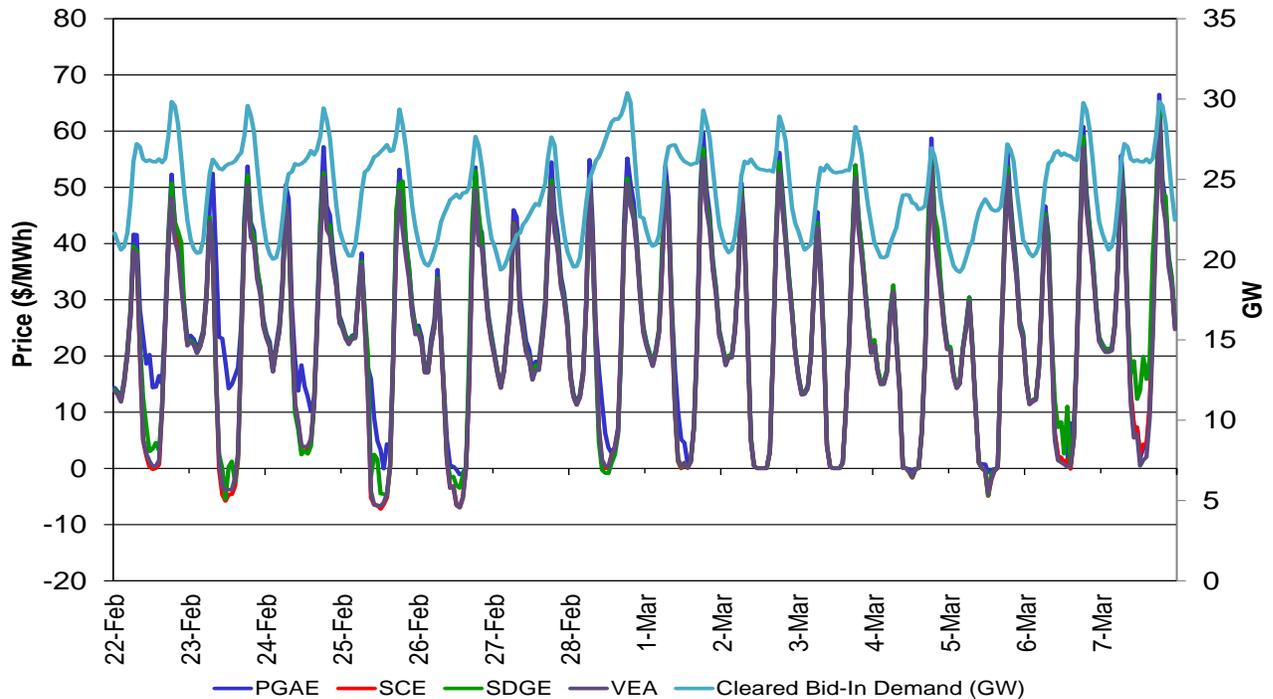
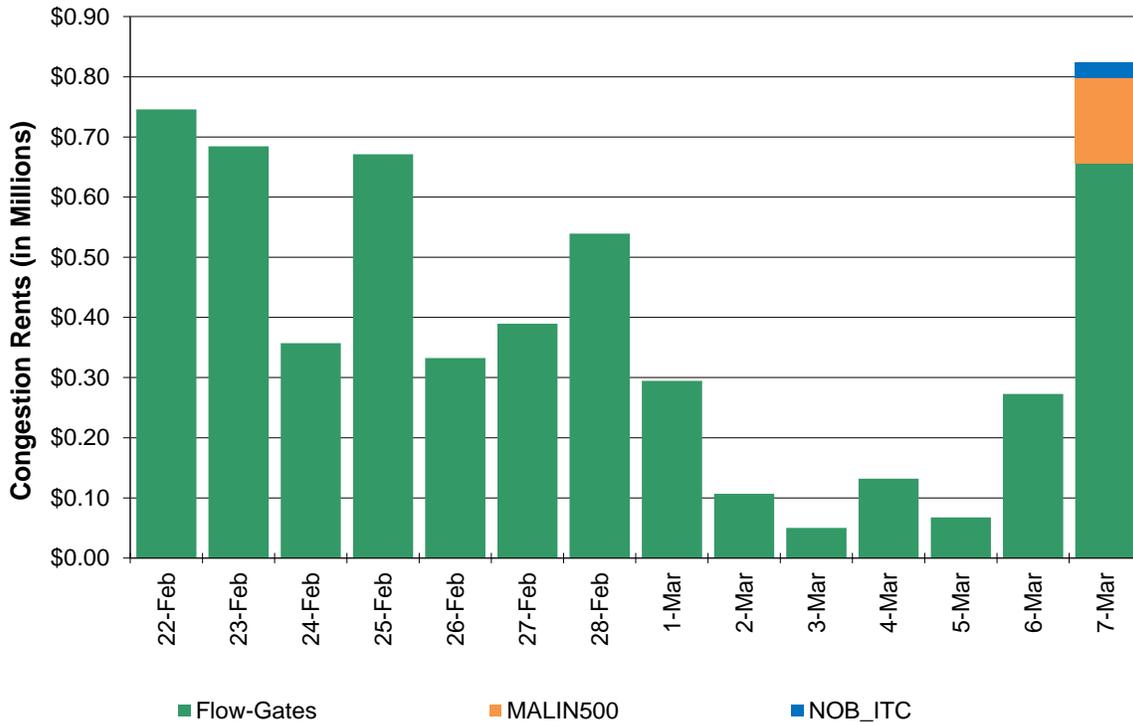
Figure 1: Day-Ahead (IFM) LAP LMP and Cleared Bid-In Demand


Figure 2: Day-Ahead Congestion Rents

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

Transmission Constraint	Congestion Rent
PATH15_S-N	\$ 1,535,945.53
7820_TL23040_IV_SPS_NG	\$ 1,423,202.57
31486_CARIBOU_115_30255_CARBOU M_1.0_XF_11	\$ 891,932.82
OMS 4621181_LBN_S-N	\$ 490,792.19
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	\$ 333,406.33
IID-SCE_BG	\$ 274,636.89
33310_SANMATEO_115_33315_RAVENSWD_115_BR_1_1	\$ 114,840.76
30750_MOSSLD_230_30790_PANOCHÉ_230_BR_1_1	\$ 59,600.48
7820_TL 230S_OVERLOAD_NG	\$ 39,414.36
22356_IMPRLVLY_230_22360_IMPRLVLY_500_XF_81	\$ 32,624.16
31512_BIG BEN2_115_31516_WYANDJT2_115_BR_1_2	\$ 27,294.72
HUMBOLDT_IMP_NG	\$ 23,570.46
31658_BANGOR_60.0_32308_COLGATE_60.0_BR_1_1	\$ 21,288.96
31580_CASCADE_60.0_31581_OREGNTRL_60.0_BR_1_1	\$ 10,256.46
31336_HPLND JT_60.0_31206_HPLND JT_115_XF_2	\$ 7,523.82
31566_KESWICK_60.0_31582_STLLWATR_60.0_BR_1_1	\$ 6,745.09
34548_KETTLEMN_70.0_34552_GATES_70.0_BR_1_1	\$ 2,360.21

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

Transmission Constraint	Congestion Rent
31093_HYMPOMJT_60.0_31553_BIG BAR_60.0_BR_1_1	\$ 1,113.26
24087_MAGUNDEN_230_24153_VESTAL_230_BR_1_1	\$ 1,001.76
33541_AEC_TP1_115_33540_TESLA_115_BR_1_1	\$ 823.80
32314_SMRTSVLE_60.0_32316_YUBAGOLD_60.0_BR_1_1	\$ 703.82
34758_LAMONT_115_34805_ARVINJ1_115_BR_1_1	\$ 592.73
31464_COTWDPGE_115_30105_COTTNWD_230_XF_1	\$ 304.08
Total	\$ 5,299,975.27

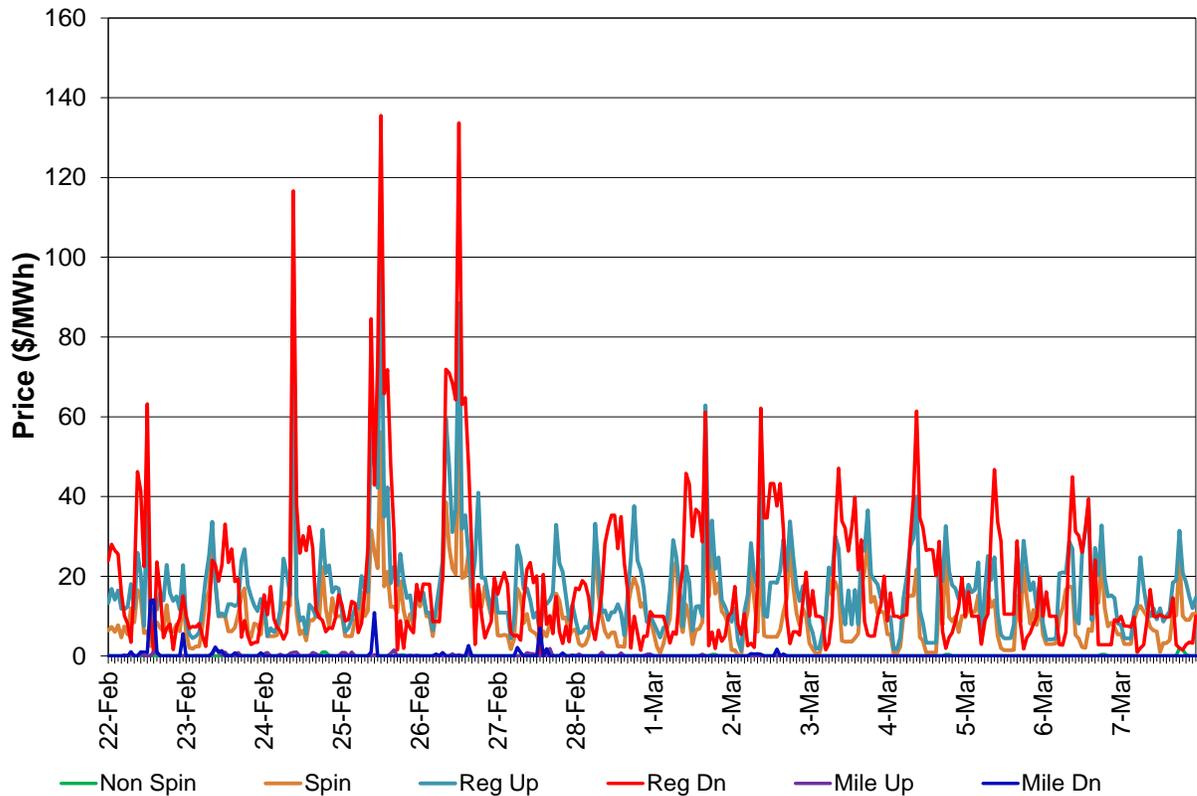
Figure 4: Day-Ahead (IFM) Average A/S Price


Figure 5: Day-Ahead Average RUC Price

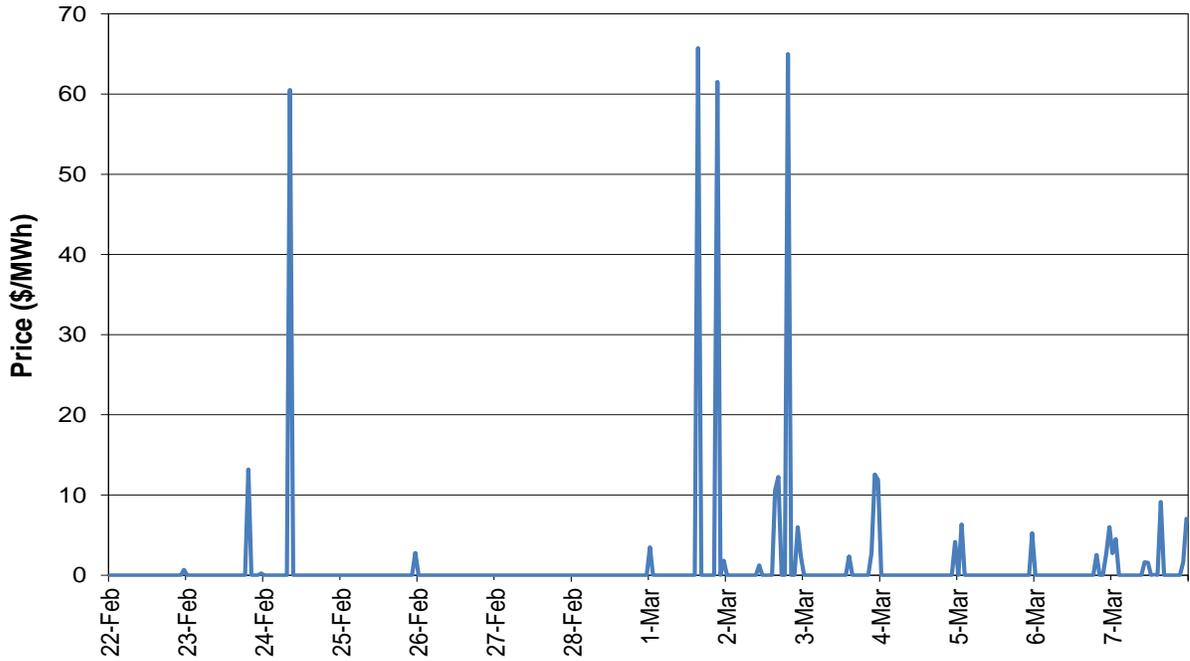


Figure 6: Real-Time FMM Average A/S Price

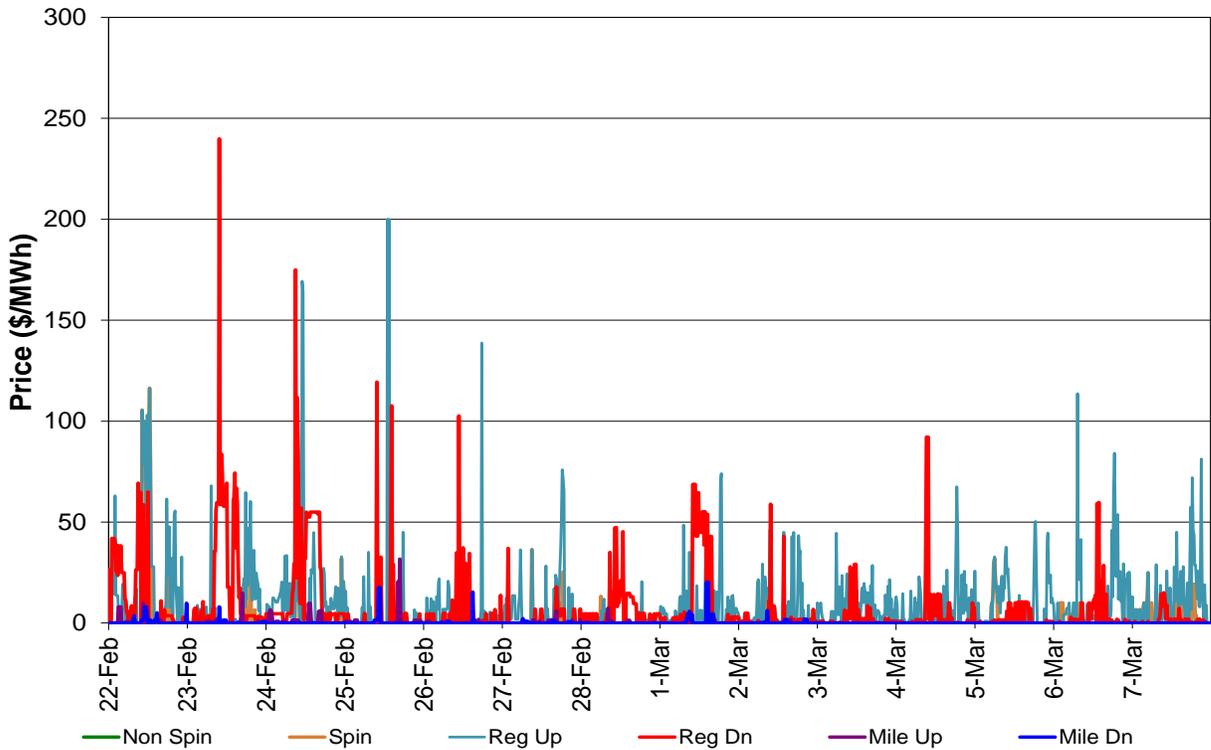


Figure 7: Real-Time FMM DLAP LMP

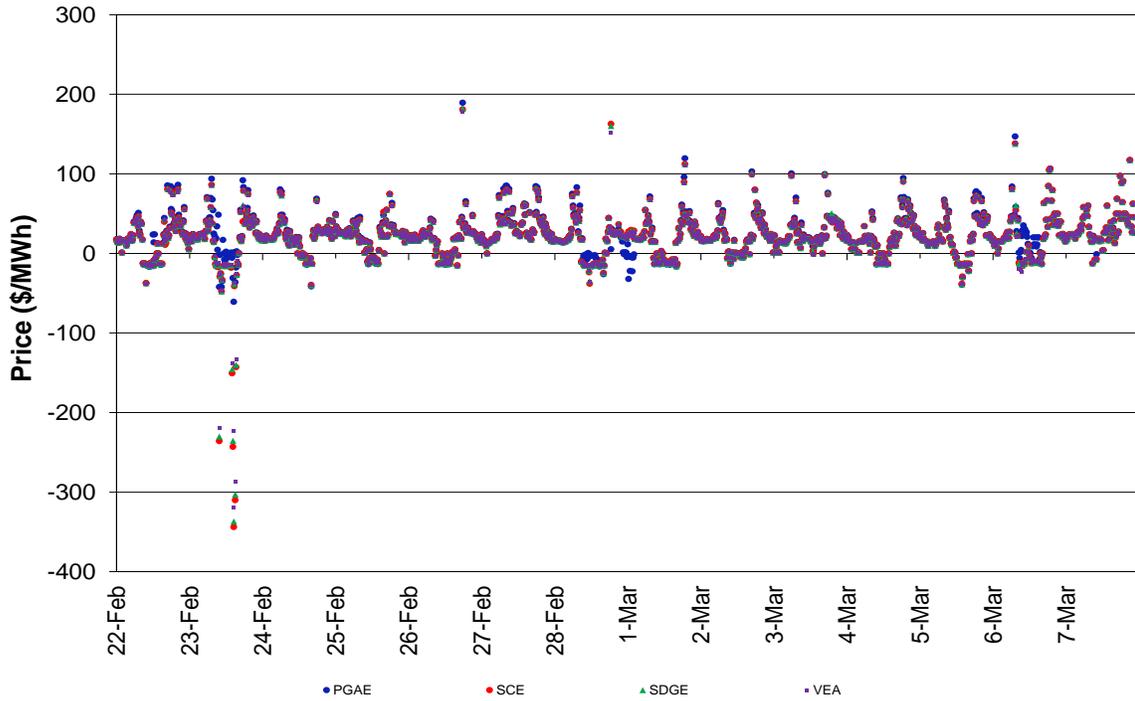


Figure 8: Real-Time RTD DLAP LMP

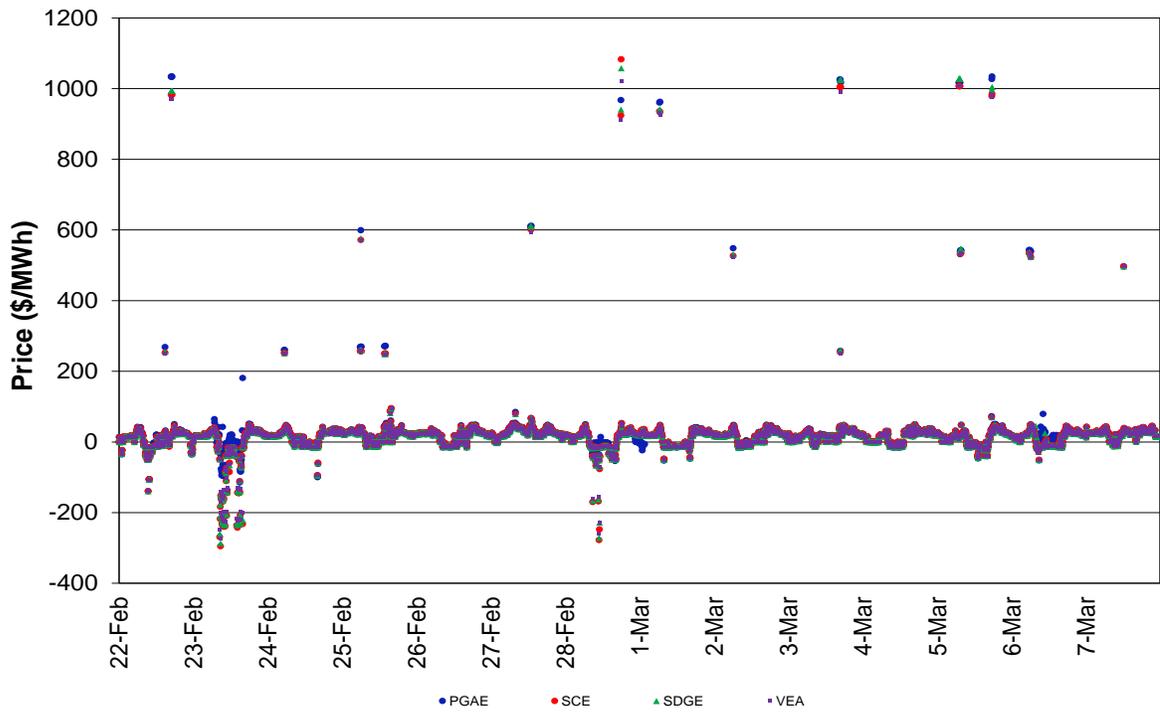


Figure 9: Real-Time FMM ELAP LMP

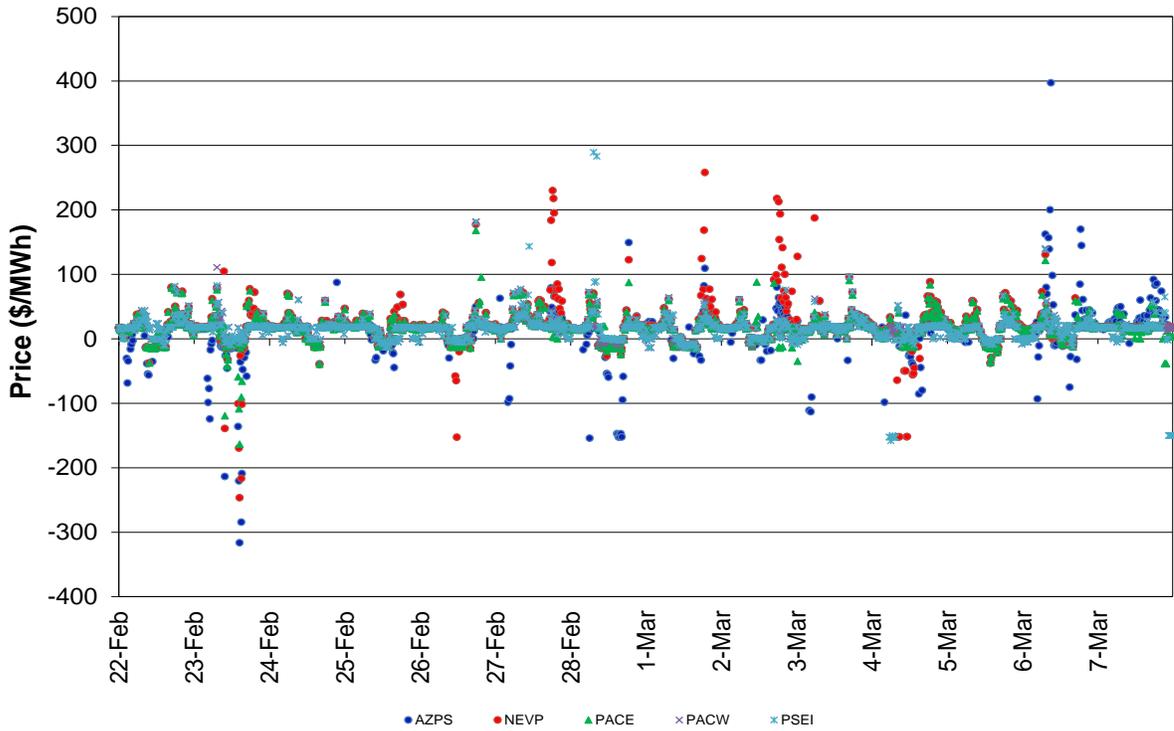


Figure 10: Real-Time RTD ELAP LMP

