

## Market Highlights<sup>1</sup> (February 6–February 19)

- The average DLAP price in the integrated forward market was \$95.66. The maximum and minimum DLAP prices were \$259.31 and \$3.02, respectively. The maximum and minimum PNode prices in the integrated forward market were \$499.24 and -\$150.00 respectively.
- The top two interties congested in the integrated forward market were PALOVRDE\_ITC and IPPDCADLN\_ITC. Congestion rents in these two weeks totaled \$35,903,155.08.
- The average day-ahead ancillary service prices were between \$0.00 and \$98.10.
- Approximately 91.37 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$85.78, with a maximum price of \$347.95 and a minimum price of -\$128.90. The maximum and minimum PNode prices in the FMM were \$1,000.00 and -\$239.44, respectively.
- Out of the total 1,344 FMM intervals, 25 intervals saw DLAP prices above \$250, and 0 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 78 intervals saw ELAP prices above \$250 And 14 intervals saw ELAP prices below -\$150.
- The average real-time FMM ELAP price was \$74.89, with a maximum price of \$1,000.00 and a minimum price of -\$156.55.
- The average real-time RTD DLAP price was \$77.62, with a maximum price of \$1,093.23 and a minimum price of -\$196.37. The maximum and minimum PNode prices in the RTD were \$1,188.11 and -\$491.73, respectively.
- Out of the total 4,032 RTD intervals, 50 intervals saw DLAP prices above \$250 and 1 interval saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 112 intervals saw ELAP prices above \$250 and 69 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$69.97, with a maximum price of \$1,033.28 and a minimum price of -\$196.44.
- Root causes for daily high price events are noted in Tables 1 and 2.

Table 1 FMM Intervals	
Trade Date	Root Cause
FMM Feb 7 HE 7; Feb 8 HE 8	Load changes and reduction of net imports.
FMM Feb 7 HE 8; HE 18;	Load changes.

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

<b>Table 1 FMM Intervals</b>	
<b>Trade Date</b>	<b>Root Cause</b>
Feb 8 HE 6, HE 7, HE 18; Feb 11 HE 6, HE 19; Feb 17 HE 19	
FMM Feb 7 HE 19	Load changes and re-dispatch of resources.
FMM Feb 9 HE 21; Feb 12 HE 15, HE 19, HE 22; Feb 14 HE 21	Congestion on 7820_TL 230S_OVERLOAD_NG.
FMM Feb 11 HE 16	Load changes, changes in renewable forecast, and congestion on 7820_TL 230S_OVERLOAD_NG.
FMM Feb 11 HE 17, HE 18	Load changes and changes in renewable forecast.
FMM Feb 15 HE 18	Load changes and congestion on 22716_SANLUSRY_230_24131_S.ONOFRE_230_BR_3_1.
FMM Feb 19 HE 9	Load changes, reduction of net imports, congestion on 7820_TL 230S_OVERLOAD_NG.

<b>Table 2 RTD Intervals</b>	
<b>Trade Date</b>	<b>Root Cause</b>
RTD Feb 6 HE 6; Feb 13 HE 8; Feb 19 HE 18	Load changes and renewable deviation.
RTD Feb 6 HE 8; Feb 12 HE 14	Load changes, reduction of net imports, and re-dispatch of resources.
RTD Feb 9 HE 19, HE 20; Feb 12 HE 13, HE 17, HE 22; Feb 13 HE 15	Congestion on 7820_TL 230S_OVERLOAD_NG.
RTD Feb 9 HE 9, HE 10	Congestion on OMS_6742815_TL23054_NG.
RTD Feb 12 HE 13	Renewable deviation.
RTD Feb 12 HE 15	Load changes, renewable deviation, and re-dispatch of resources.
RTD Feb 12 HE 23	Renewable deviation and reduction of net imports.
RTD Feb 13 HE 13, HE 14	Renewable deviation.
RTD Feb 15 HE 9, HE 22	Renewable deviation and congestion on 22716_SANLUSRY_230_24131_S.ONOFRE_230_BR_3_1.
RTD Feb 17 HE 17	Load changes.



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

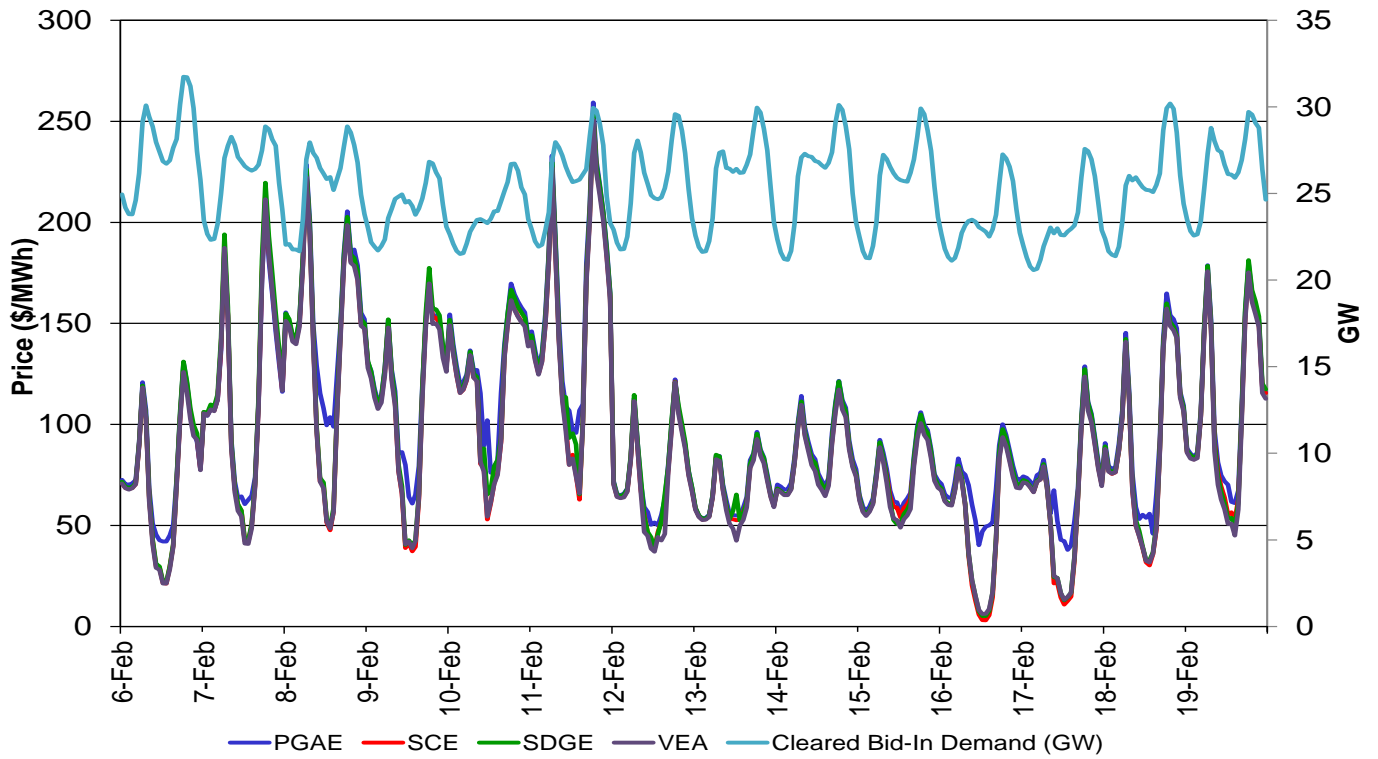
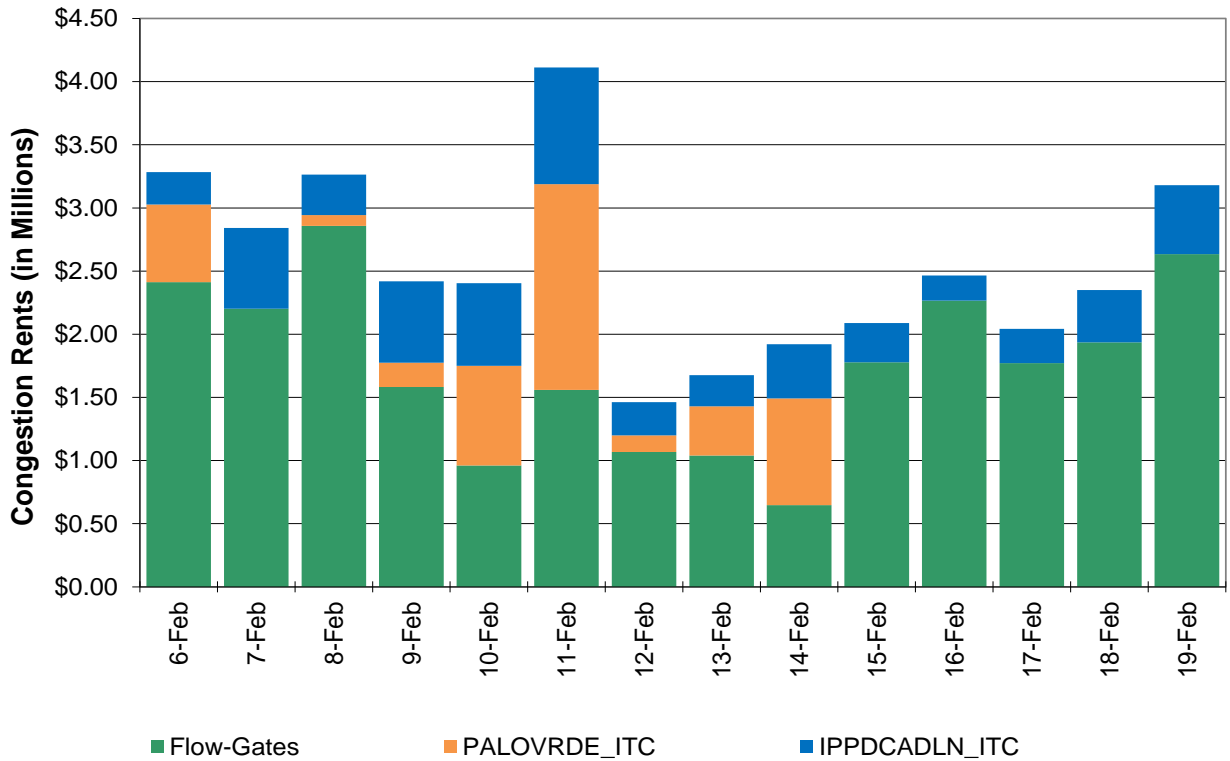


Figure 2: Day-Ahead Congestion Rents



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

<b>Transmission Constraint</b>	<b>Congestion Rent</b>
7750_D-ECASCO_OOS_CP6_NG	\$ 6,842,195.83
30055_GATES1_500_30060_MIDWAY_500_BR_1_3	\$ 2,986,306.51
7750_D-ECASCO_OOS_N1SV500_NG	\$ 2,898,769.26
30056_GATES2_500_30060_MIDWAY_500_BR_2_3	\$ 2,883,134.32
30765_LOSBANOS_230_30790_PANOCHÉ_230_BR_2_1	\$ 2,402,114.46
OMS 6777914_PAS-BAI_OOS_NG	\$ 1,701,409.29
30050_LOSBANOS_500_30055_GATES1_500_BR_1_1	\$ 780,077.42
34418_KINGSBRG_115_34405_FRWT TAP_115_BR_1_1	\$ 749,692.30
7510-PAS-BAI-PAR-OOS_NG	\$ 736,490.09
6410_CP7_NG	\$ 672,029.51
OMS 6484294_7750_D-SBLR_NG	\$ 479,482.36
24086_LUGO_500_26105_VICTORVL_500_BR_1_1	\$ 298,241.99
7820_TL 230S_OVERLOAD_NG	\$ 222,064.25
30050_LOSBANOS_500_30056_GATES2_500_BR_2_1	\$ 213,623.57
24901_VSTA_230_24804_DEVERS_230_BR_1_1	\$ 208,526.86
MAXBURN_ALISO_NORTHERN	\$ 120,078.35
36851_NORTHERN_115_36852_SCOTT_115_BR_1_1	\$ 99,185.65
34116_LE GRAND_115_34134_WILSONAB_115_BR_1_1	\$ 75,777.89
22372_KEARNY_69.0_22496_MISSION_69.0_BR_1_1	\$ 57,626.93
34704_SEMITRPC_115_34774_MIDWAY_115_BR_1_1	\$ 31,159.59
32225_BRNSWKT1_115_32222_DTCH2TAP_115_BR_1_1	\$ 28,758.03
34474_HELM_70.0_34556_STRD JCT_70.0_BR_1_1	\$ 27,801.52
24114_PARDEE_230_24147_SYLMAR S_230_BR_2_1	\$ 25,399.48
34469_GFFNJCT_70.0_34470_GIFFEN_70.0_BR_1_1	\$ 24,558.25
31000_HUMBOLDT_115_31015_BRDGVILLE_115_BR_1_1	\$ 21,595.59
22716_SANLUSRY_230_24131_S.ONOFRE_230_BR_3_1	\$ 19,187.13
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	\$ 17,292.68
32214_RIO OSO_115_32244_BRNSWKT2_115_BR_2_1	\$ 15,905.67
31984_BRIGHTN_115_31993_BRKRJCT_115_BR_1_1	\$ 14,364.35
34548_KETTLEMN_70.0_34552_GATES_70.0_BR_1_1	\$ 11,502.75
22604_OTAY_69.0_22616_OTAYLKTP_69.0_BR_1_1	\$ 8,836.47
34112_EXCSEQUR_115_34116_LE GRAND_115_BR_1_1	\$ 8,446.82
35648_LLAGAS_115_35655_MORGN J2_115_BR_1_1	\$ 8,241.31
22200_DUNHILTP_69.0_22196_DUNHILL_69.0_BR_1_1	\$ 7,422.71
34405_FRWT TAP_115_34420_CORCORAN_115_BR_1_1	\$ 4,152.14
31566_KESWICK_60.0_31582_STLLWATR_60.0_BR_1_1	\$ 3,935.31
HUMBOLDT_IMP_NG	\$ 3,875.89
31080_HUMBOLDT_60.0_31092_MPLE CRK_60.0_BR_1_1	\$ 1,569.01
31464_COTWDPGE_115_30105_COTTNWD_230_XF_1	\$ 571.10
33543_AEC_TP2_115_33540_TESLA_115_BR_1_1	\$ 489.21
<b>Totals</b>	<b>\$ 24,711,891.88</b>



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

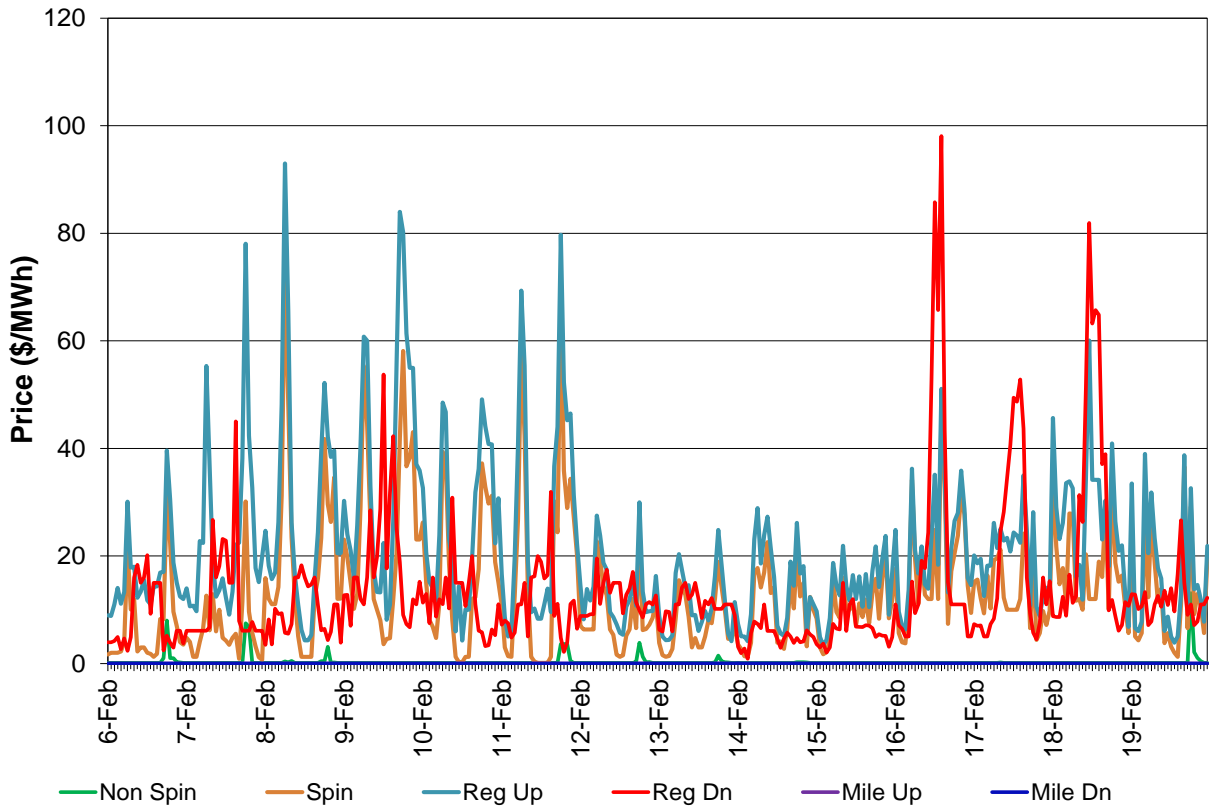


Figure 5: Day-Ahead Average RUC Price

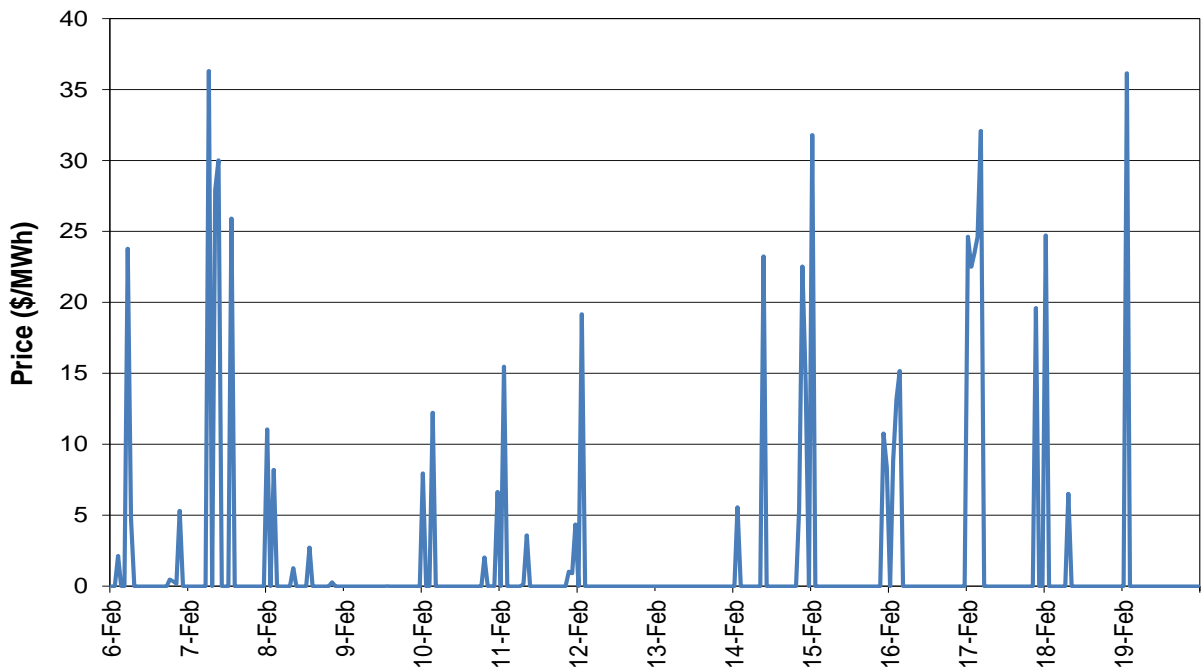




Figure 6: Real-Time FMM Average A/S Price

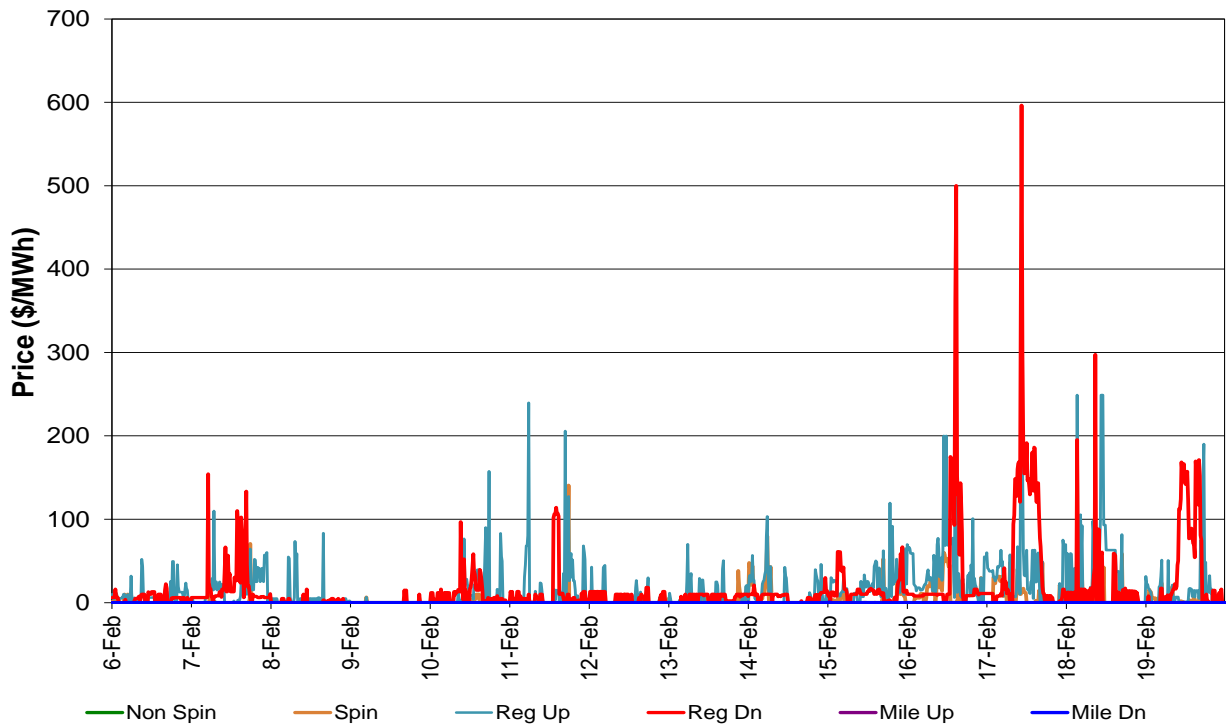
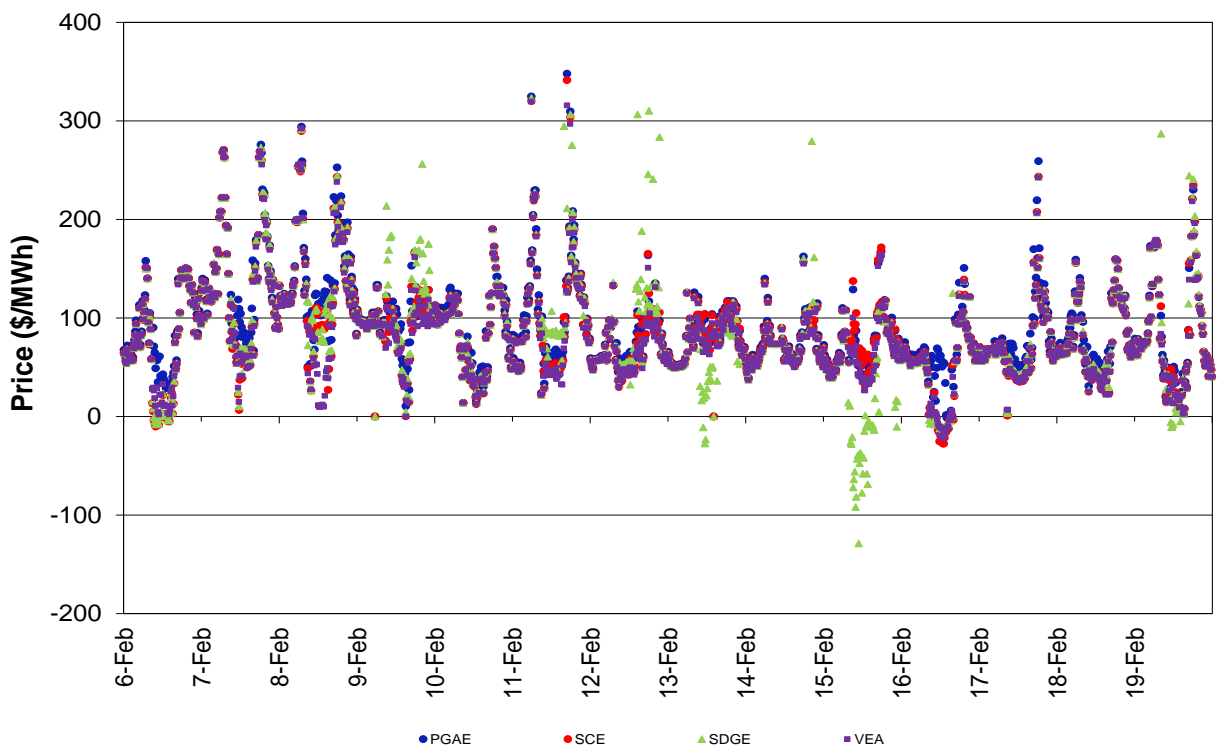
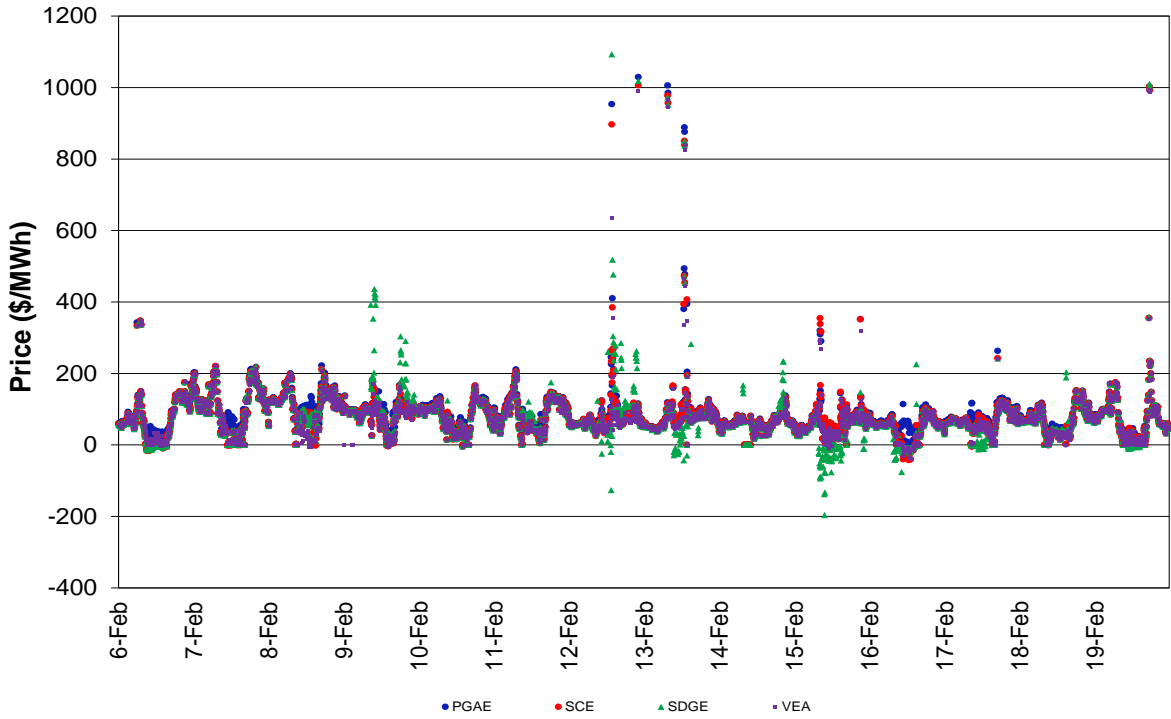


Figure 7: Real-Time FMM DLAP LMP



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



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

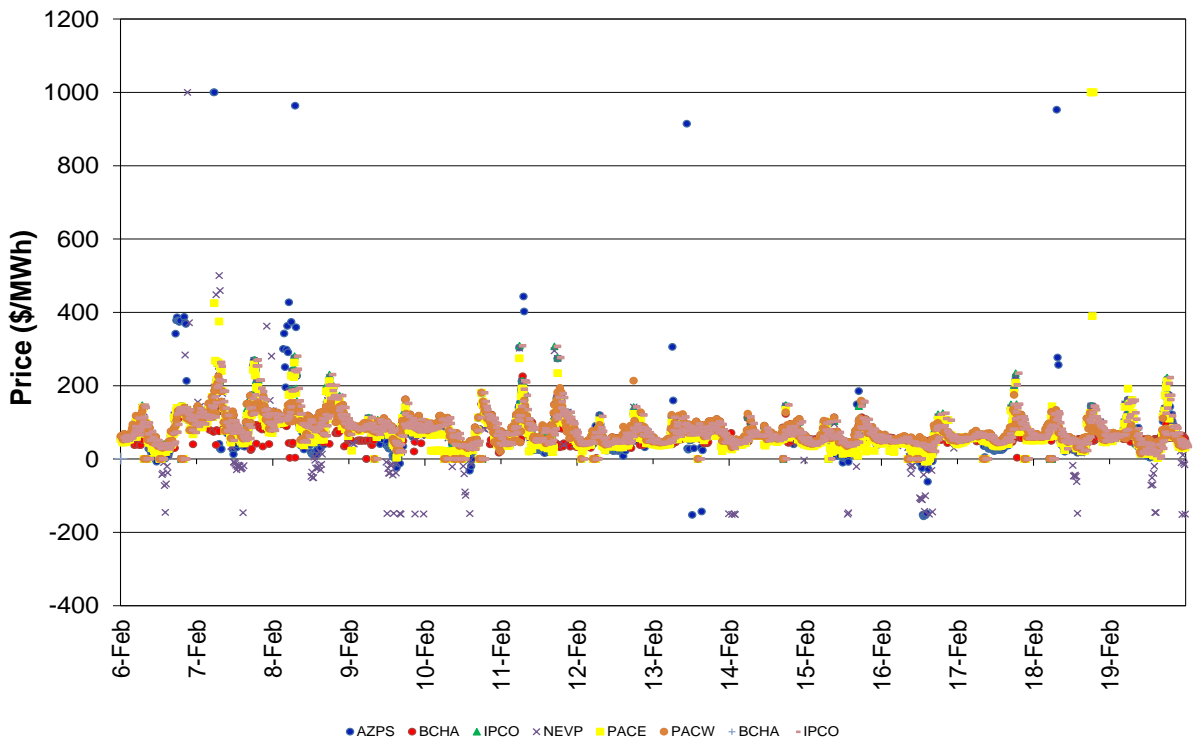


Figure 10: Real-Time RTD ELAP LMP

