

Market Highlights¹ (February 21–March 6)

- The average DLAP price in the integrated forward market was \$44.53. The maximum and minimum DLAP prices were \$475.30 and -\$3.91, respectively. The maximum and minimum PNode prices in the integrated forward market were \$1,000.00 and -\$87.23 respectively.
- The top two interties congested in the integrated forward market were NOB_ITC and MALIN500. Congestion rents in these two weeks totaled \$56,929,428.15.
- The average day-ahead ancillary service prices were between \$0.00 and \$81.24.
- Approximately 97.53 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$40.46, with a maximum price of \$1,079.16 and a minimum price of -\$16.99. The maximum and minimum PNode prices in the FMM were \$1,170.75 and -\$188.91, respectively.
- Out of the total 1,344 FMM intervals, 23 intervals saw DLAP prices above \$250, and 0 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 5 intervals saw ELAP prices above \$250 and 10 intervals saw ELAP prices below -\$150.
- The average real-time FMM ELAP price was \$24.13, with a maximum price of \$989.08 and a minimum price of -\$341.31.
- The average real-time RTD DLAP price was \$41.77, with a maximum price of \$1,248.27 and a minimum price of -\$17.93. The maximum and minimum PNode prices in the RTD were \$1,257.24 and -\$962.01, respectively.
- Out of the total 4,032 RTD intervals, 76 intervals saw DLAP prices above \$250 and 0 interval saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 56 intervals saw ELAP prices above \$250 and 54 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$25.53, with a maximum price of \$1,021.40 and a minimum price of -\$210.49.
- Root cause for daily high price events are noted in Tables 1 and 2.

Table 1 FMM Intervals	
Trade Date	Root Cause
FMM Feb 22 HE 16	Congestion on 24138_SERRANO _500_24137_SERRANO _230_XF_1 _P and load changes
FMM Feb 22 HE 18	Congestion on 24138_SERRANO _500_24137_SERRANO _230_XF_1 _P

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
	and change in renewable forecast
FMM Feb 22 HE 20	Congestion on 7820_TL23040_IV_SPS_NG
FMM Feb 22 HE 21; Feb 23 HE 18, 19, 20	Congestion on 24021_CENTER S_230_24091_MESA CAL_230_BR_1_1
FMM Feb 27 HE 19; Mar 2 HE 18; Mar 3 HE 19	Congestion on 24138_SERRANO_500_24137_SERRANO_230_XF_1_P
FMM Mar 1 HE 11	Congestion on 30900_GATES_230_30970_MIDWAY_230_BR_1_1
FMM Mar 1 HE 19	Load changes and re-dispatch of resources
FMM Mar 5 HE 17, 18	Congestion on 24138_SERRANO_500_24137_SERRANO_230_XF_1_P and change in renewable forecast
FMM Mar 5 HE 19, 20	Congestion on OMS 5736540 SUNCREST BK80_NG, MAXBURN_ALISO_TOTAL and load changes

Table 2 RTD Intervals	
Trade Date	Root Cause
RTD Feb 22 HE 16	Congestion on 24138_SERRANO_500_24137_SERRANO_230_XF_1_P
RTD Feb 22 HE 19, 20	Congestion on 24021_CENTER S_230_24091_MESA CAL_230_BR_1_1, 7820_TL23040_IV_SPS_NG and renewable deviation
RTD Feb 23 HE 17, 18, 19, 21	Congestion on MAXBURN_ALISO_TOTAL, renewable deviation and load changes
RTD Feb 23 HE 22, 23, 24	Congestion on MAXBURN_ALISO_TOTAL and load changes
RTD Feb 24 HE 18, 19	Load changes, reduction of net import and re-dispatch of resources
RTD Mar 1 HE 18, 19	Congestion on MAXBURN_ALISO_TOTAL, renewable deviation and re- dispatch of resources
RTD Mar 5 HE 18, 19	Congestion on MAXBURN_ALISO_TOTAL and OMS 5736540 SUNCREST BK80_NG, load changes and renewable deviation
RTD Mar 5 HE 20, 21	Congestion on OMS 5736540 SUNCREST BK80_NG and 24138_SERRANO_500_24137_SERRANO_230_XF_1_P



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

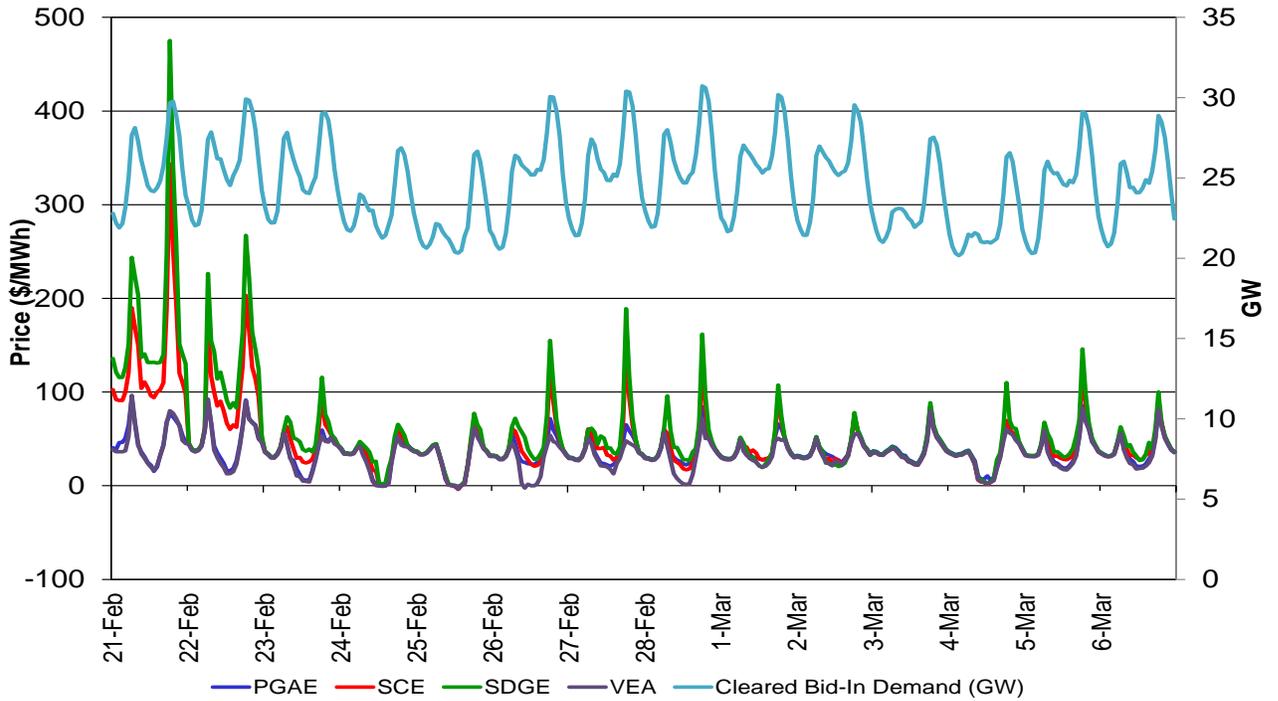


Figure 2: Day-Ahead Congestion Rents

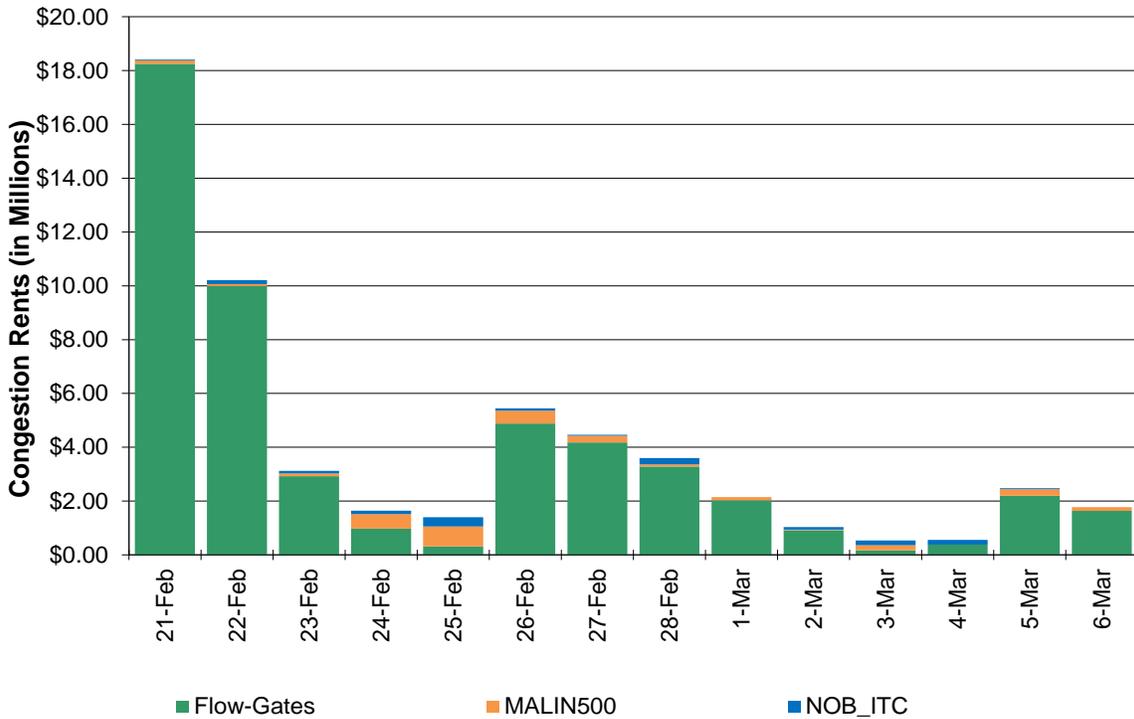


Figure 3: Day-Ahead Congestion Rents for Flow-Based Constraints

Transmission Constraint	Congestion Rent
24138_SERRANO_500_24137_SERRANO_230_XF_1_P	\$ 42,527,510.29
MAXBURN_ALISO_LABASIN	\$ 2,028,381.37
24086_LUGO_500_26105_VICTORVL_500_BR_1_1	\$ 1,681,339.88
MAXBURN_ALISO_TOTAL	\$ 1,016,593.86
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	\$ 952,089.51
30900_GATES_230_30970_MIDWAY_230_BR_1_1	\$ 776,512.42
22824_SWTWTRTP_69.0_22820_SWEETWTR_69.0_BR_1_1	\$ 440,415.61
7820_TL_230S_OVERLOAD_NG	\$ 332,930.39
22480_MIRAMAR_69.0_22756_SCRIPPS_69.0_BR_1_1	\$ 312,910.35
7820_TL23040_IV_SPS_NG	\$ 279,393.98
MAXBURN_ALISO_SDGE	\$ 257,187.09
OMS 5736540_SUNCREST BK80_NG	\$ 197,028.56
22476_MIGUELTP_69.0_22456_MIGUEL_69.0_BR_1_1	\$ 135,822.25
30523_CC SUB_230_30525_C.COSTA_230_BR_1_1	\$ 135,597.36
6310_CP9_NG	\$ 115,588.23
MAXBURN_ALISO_INLAND	\$ 114,749.95
30529_BRDSLNG_230_30525_C.COSTA_230_BR_1_1	\$ 108,315.45
99254_J.HINDS2_230_24806_MIRAGE_230_BR_1_1	\$ 93,147.08
22256_ESCNDIDO_69.0_22724_SANMRCOS_69.0_BR_1_1	\$ 85,816.74
24036_EAGLROCK_230_24059_GOULD_230_BR_1_1	\$ 81,554.80
22773_BAY BLVD_69.0_22820_SWEETWTR_69.0_BR_1_1	\$ 66,395.15
31336_HPLND JT_60.0_31206_HPLND JT_115_XF_2	\$ 64,846.65
34418_KINGSBRG_115_34405_FRWT TAP_115_BR_1_1	\$ 60,938.50
6410_CP7_NG	\$ 51,680.05
34469_GFFNJCT_70.0_34470_GIFFEN_70.0_BR_1_1	\$ 45,745.85
OMS 5736536_SUNCREST BK80_NG	\$ 39,999.58
34548_KETTLEMN_70.0_34552_GATES_70.0_BR_1_1	\$ 33,469.85
24021_CENTER S_230_24091_MESA CAL_230_BR_1_1	\$ 18,900.43
7750_D-ECASCO_OOS_CP6_NG	\$ 15,885.77
IID-SCE_BG	\$ 9,723.84
22208_EL CAJON_69.0_22408_LOSCOCHS_69.0_BR_1_1	\$ 7,258.72
33527_LAM TAP1_115_33528_KASSON_115_BR_1_1	\$ 6,818.79
HUMBOLDT_IMP_NG	\$ 6,338.76
BLYTHE_BG	\$ 4,030.98
22680_R.SNTAFE_69.0_22685_R.SNTTP1_69.0_BR_1_1	\$ 3,397.78
33530_KASSONJ2_115_33548_TRACY_115_BR_1_1	\$ 2,748.24
33045_FIBRJCT1_115_33049_RIVERVEW_115_BR_1_1	\$ 2,128.16
31464_COTWDPGE_115_30105_COTTNWD_230_XF_1	\$ 1,608.80
31227_HGHLNDJ2_115_31950_CORTINA_115_BR_1_1	\$ 749.74
22500_MISSION_138_22120_CARLTNHS_138_BR_1_1	\$ 657.32
30060_MIDWAY_500_24156_VINCENT_500_BR_1_1	\$ 622.25
31214_GEYERS56_115_31220_EGLE RCK_115_BR_1_1	\$ 0.08
Totals	\$ 52,116,830.48



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

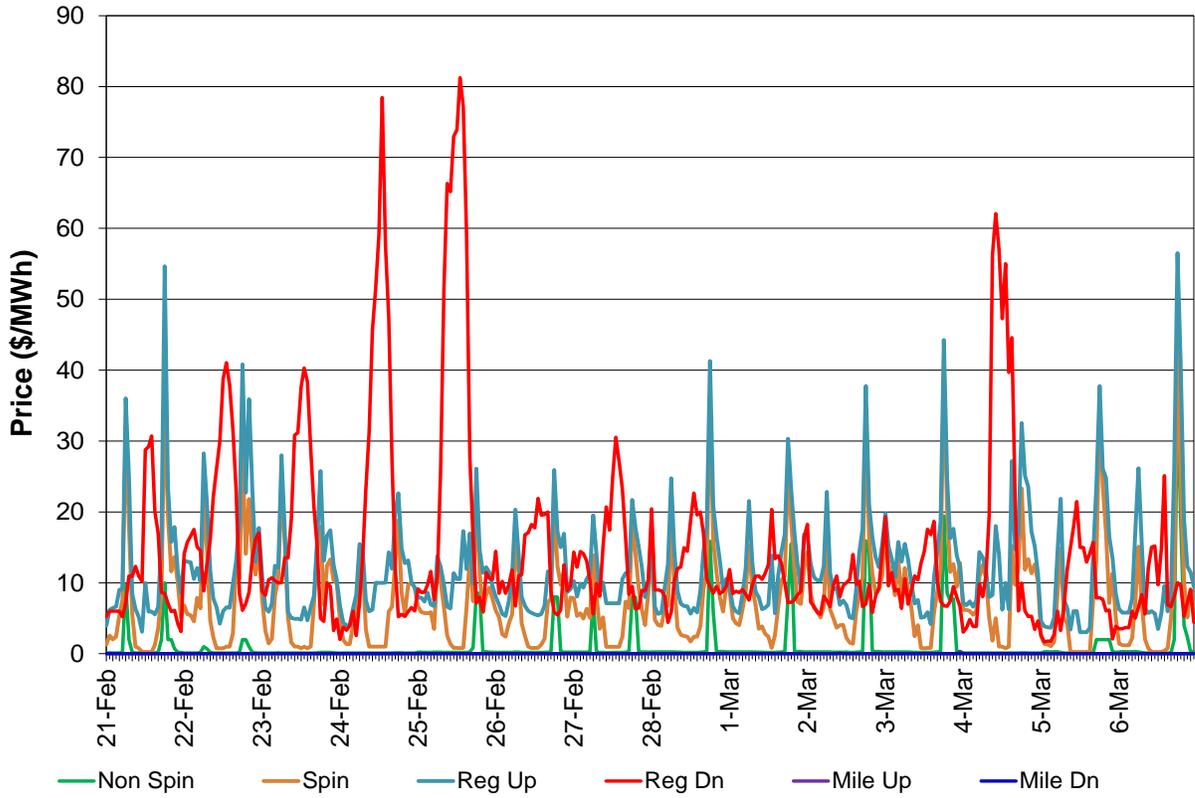


Figure 5: Day-Ahead Average RUC Price

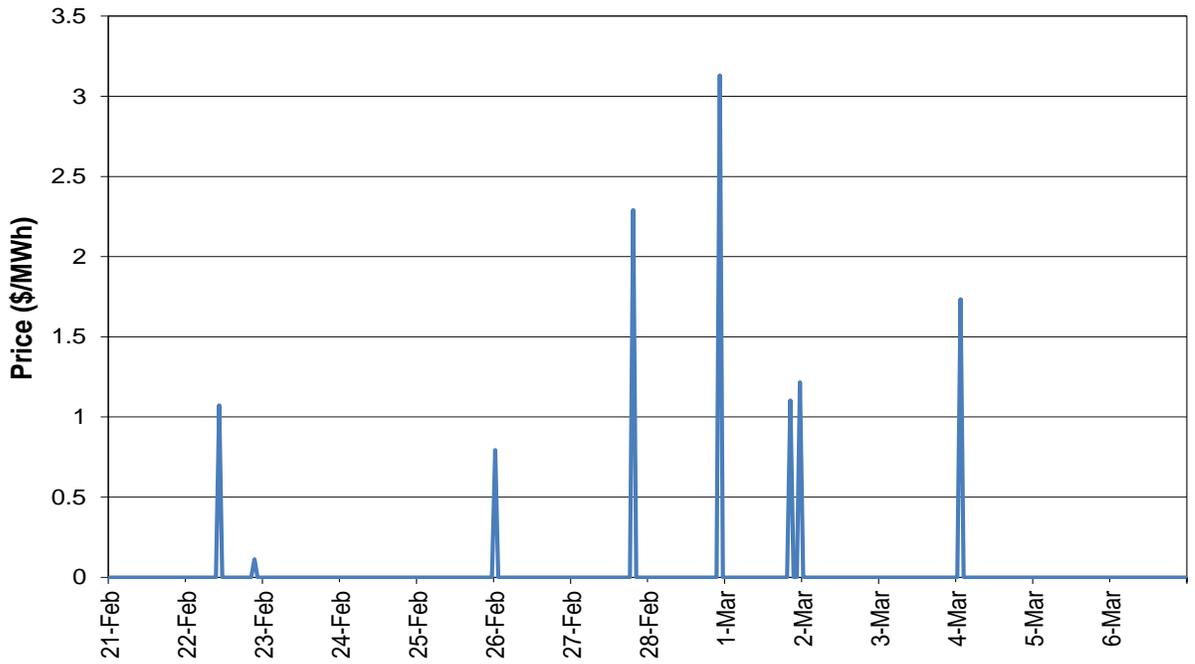




Figure 6: Real-Time FMM Average A/S Price

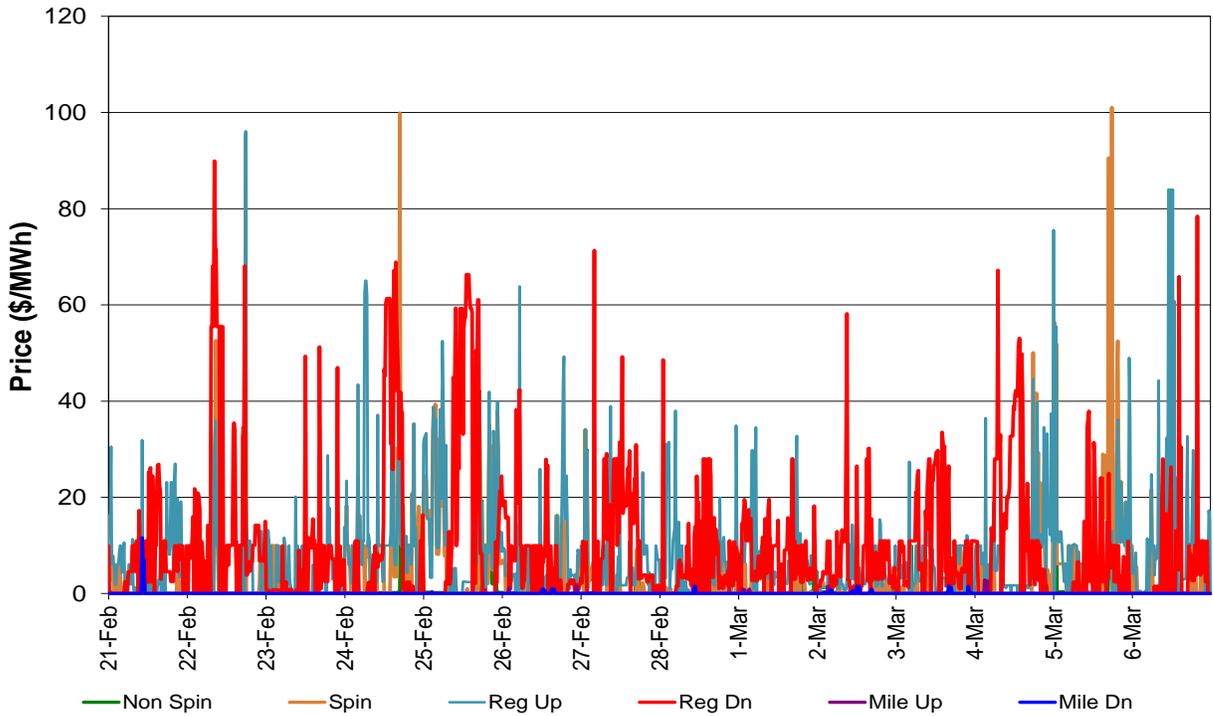


Figure 7: Real-Time FMM DLAP LMP

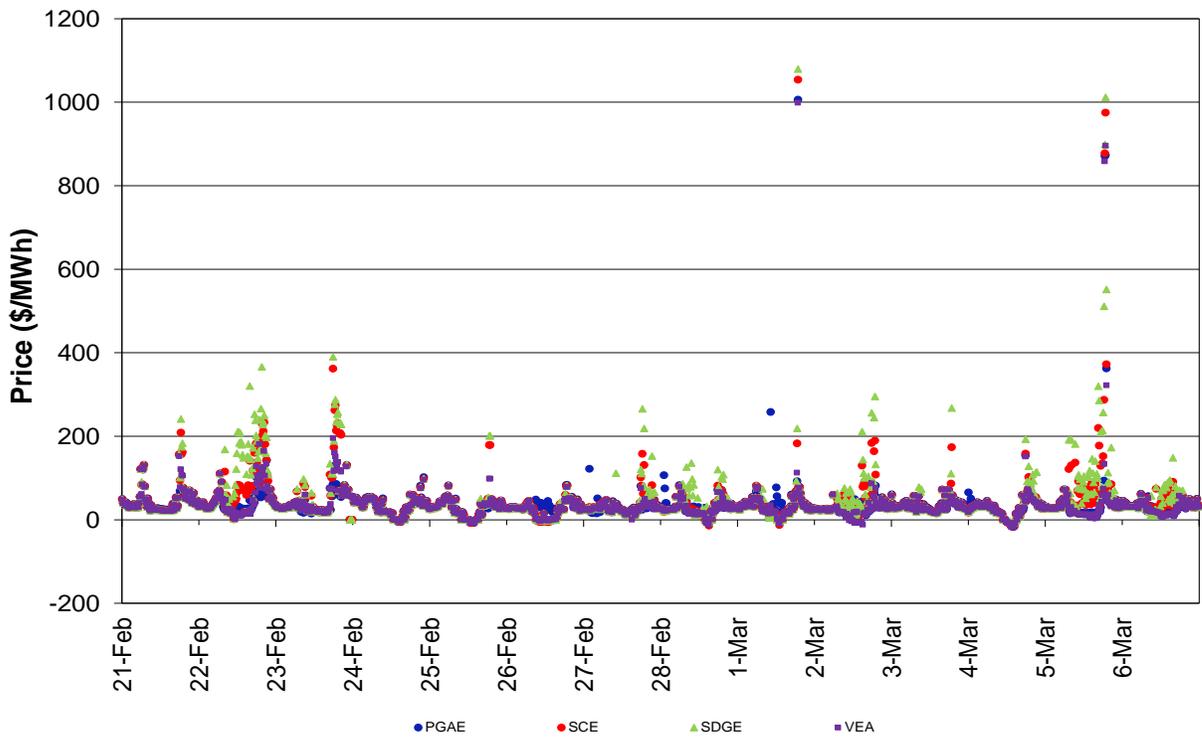


Figure 8: Real-Time RTD DLAP LMP

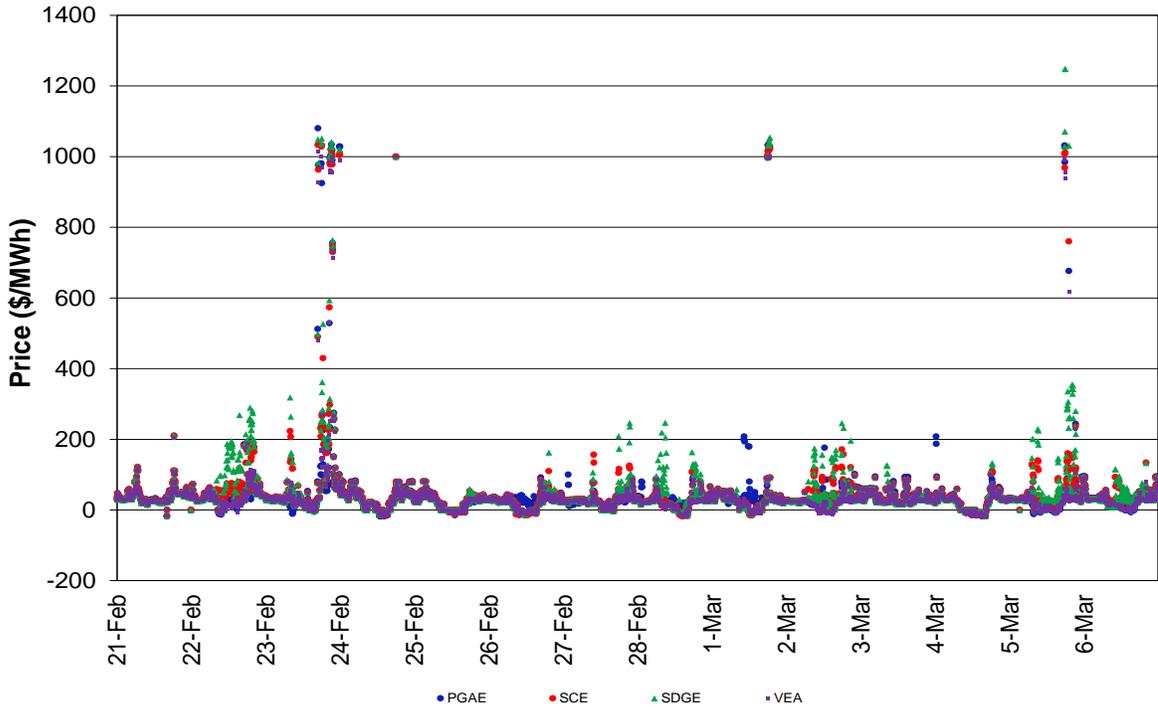


Figure 9: Real-Time FMM ELAP LMP

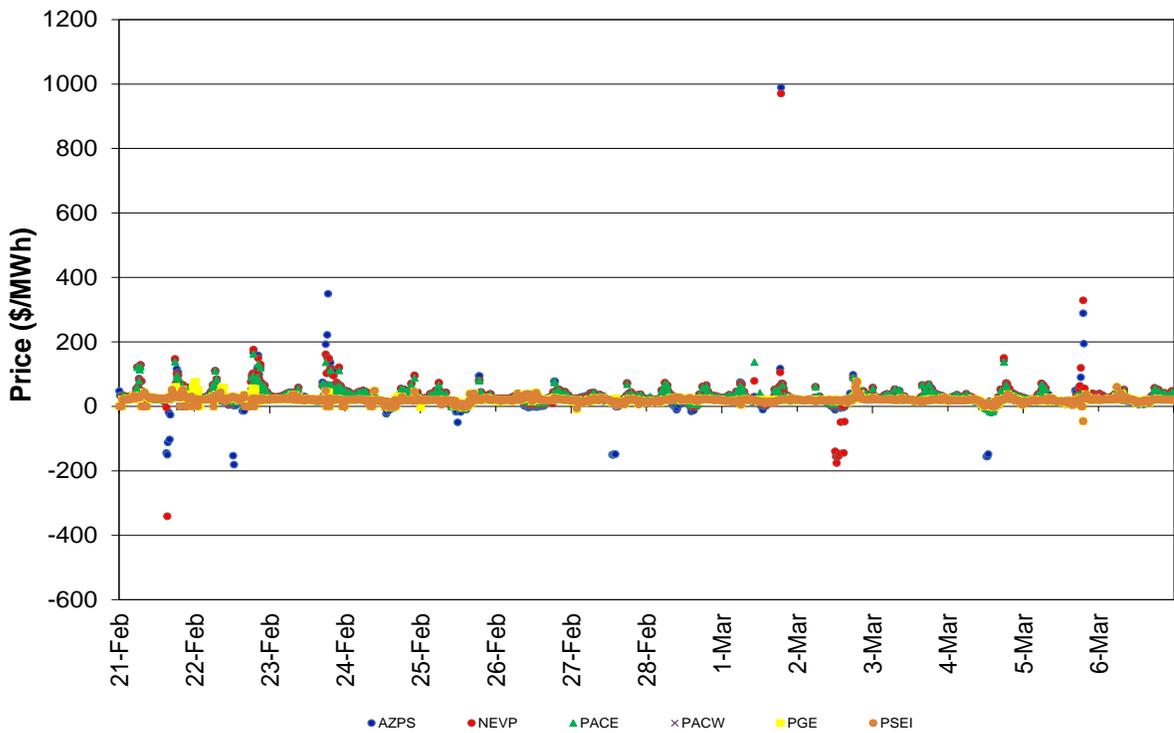




Figure 10: Real-Time RTD ELAP LMP

