



Market Highlights¹ (March 21–April 3)

- The average DLAP price in the integrated forward market was \$26.05. The maximum and minimum DLAP prices were \$106.20 and -\$14.44, respectively. The maximum and minimum PNode prices in the integrated forward market were \$360.65 and -\$150.06 respectively.
- The top two interties congested in the integrated forward market were MALIN500 and NOB_ITC. Congestion rents in these two weeks totaled \$20,892,264.24.
- The average day-ahead ancillary service prices were between \$0.00 and \$119.45.
- Approximately 93.94 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$22.85, with a maximum price of \$208.97 and a minimum price of -\$18.83. The maximum and minimum PNode prices in the FMM were \$349.96 and -\$134.34, 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, 9 intervals saw ELAP prices above \$250 and 42 intervals saw ELAP prices below -\$150.
- The average real-time FMM ELAP price was \$18.19, with a maximum price of \$990.90 and a minimum price of -\$159.72.
- The average real-time RTD DLAP price was \$25.08, with a maximum price of \$1,236.79 and a minimum price of -\$352.88. The maximum and minimum PNode prices in the RTD were \$1,941.67 and -\$203.33, respectively.
- Out of the total 4,032 RTD intervals, 40 intervals saw DLAP prices above \$250 and 3 interval saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 57 intervals saw ELAP prices above \$250 and 119 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$18.86, with a maximum price of \$1,020.63 and a minimum price of -\$229.79.
- Root cause for daily high price events are noted in Tables 1.

Table 1 RTD Intervals	
Trade Date	Root Cause
RTD Mar 21 HE 8,10,11	Congestion on OMS 5784730_OP-6610.

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 Mar 21 HE 23	Reduction of net imports.
RTD Mar 24 HE 9, 20; Mar 30 HE 18, 19; Mar 31 HE 17, 18; Apr 2 HE 18, 22; Apr 3 HE 18	Load changes and renewable deviation.
RTD Apr 1 HE 19; Mar 30 HE 22	Load changes.
RTD Apr 2 HE 20	Load changes, renewable deviation, and congestion on RM_TM21_NG.

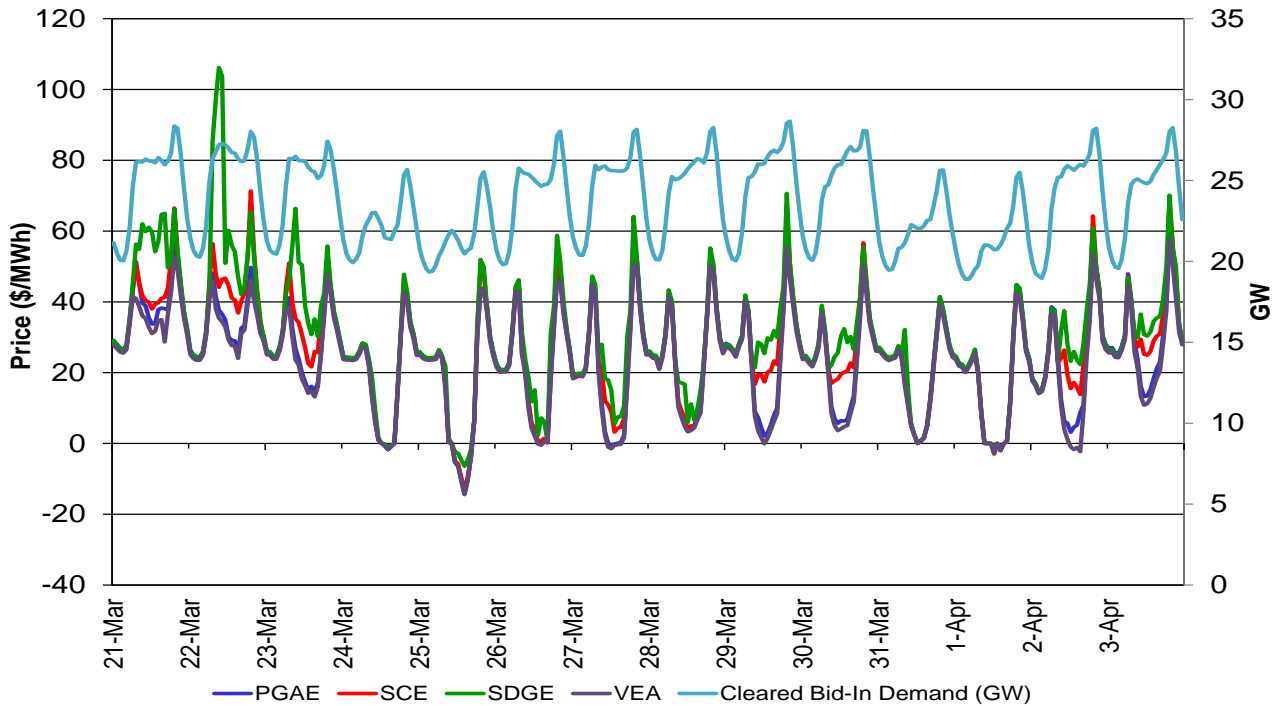
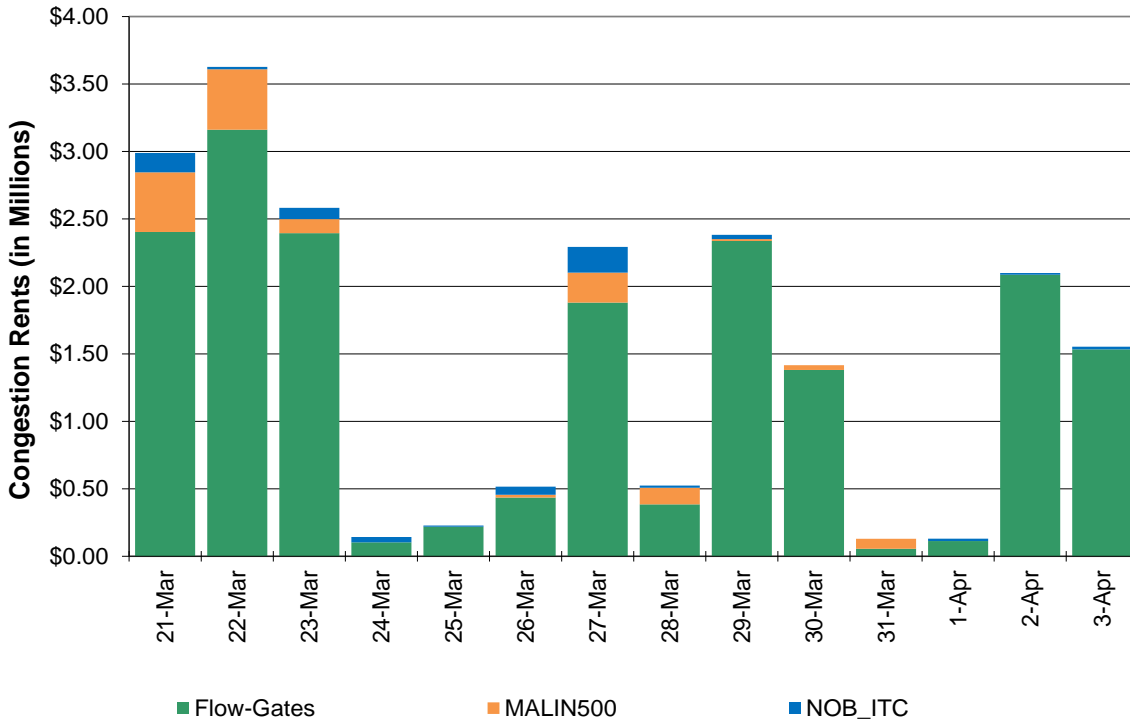
Figure 1: Day-Ahead (IFM) LAP LMP and Cleared Bid-In Demand


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	\$ 7,575,547.06
24036_EAGLROCK_230_24059_GOULD_230_BR_1_1	\$ 2,110,050.69
33315_RAVENSWD_115_35350_AMES BS_115_BR_2_1	\$ 1,664,343.18
22500_MISSION_138_22120_CARLTNHS_138_BR_1_1	\$ 1,640,546.48
24021_CENTER S_230_24091_MESA CAL_230_BR_1_1	\$ 883,801.42
7820_TL_230S_OVERLOAD_NG	\$ 706,407.05
22476_MIGUELTP_69.0_22456_MIGUEL_69.0_BR_1_1	\$ 647,820.89
24132_SANBRDNO_230_24804_DEVERS_230_BR_1_1	\$ 513,085.35
25001_GOODRICH_230_24076_LAGUBELL_230_BR_1_1	\$ 400,077.87
24029_DELAMO_230_24021_CENTER S_230_BR_1_1	\$ 391,634.87
22820_SWEETWTR_69.0_22476_MIGUELTP_69.0_BR_1_1	\$ 285,890.94
22831_SYCAMORE_138_22120_CARLTNHS_138_BR_1_1	\$ 237,177.03
22824_SWTWTRTP_69.0_22820_SWEETWTR_69.0_BR_1_1	\$ 225,238.01
30055_GATES1_500_30060_MIDWAY_500_BR_1_3	\$ 140,082.55
24086_LUGO_500_26105_VICTORVL_500_BR_1_1	\$ 136,952.48
24114_PARDEE_230_24147_SYLMAR S_230_BR_2_1	\$ 131,140.67
22480_MIRAMAR_69.0_22756_SCRIPPS_69.0_BR_1_1	\$ 130,461.46
34548_KETTLEMN_70.0_34552_GATES_70.0_BR_1_1	\$ 80,755.34

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

Transmission Constraint	Congestion Rent
31336_HPLND JT_60.0_31370_CLVRDLJT_60.0_BR_1_1	\$ 69,663.66
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	\$ 58,532.61
32212_E.NICOLS_115_32214_RIO OSO_115_BR_1_1	\$ 44,001.56
22056_BERNARDO_69.0_22676_R.CARMEL_69.0_BR_1_1	\$ 42,578.18
34112_EXCHEQR_115_34116_LE GRAND_115_BR_1_1	\$ 39,319.75
31658_BANGOR_60.0_32308_COLGATE_60.0_BR_1_1	\$ 38,117.10
34427_ATWELL_115_34701_SMYRNA 1_115_BR_1_1	\$ 36,348.63
37585_TRCY PMP_230_30625_TESLA D_230_BR_2_1	\$ 32,300.51
31378_FULTON_60.0_31382_FTCHMTNP_60.0_BR_1_1	\$ 30,450.53
34758_LAMONT_115_34805_ARVINJ1_115_BR_1_1	\$ 28,653.65
34469_GFFNJCT_70.0_34470_GIFFEN_70.0_BR_1_1	\$ 21,214.96
22208_EL CAJON_69.0_22408_LOSCOCHS_69.0_BR_1_1	\$ 21,015.19
31461_JESSTAP_115_31464_COTWDPGE_115_BR_1_1	\$ 20,922.99
34859_PRMTFMTP_70.0_34873_Q484TP_70.0_BR_1_1	\$ 16,748.85
32314_SMRTSVLE_60.0_32349_BEALE2J1_60.0_BR_1_1	\$ 14,277.77
34418_KINGSBRG_115_34405_FRWT TAP_115_BR_1_1	\$ 13,294.86
31336_HPLND JT_60.0_31206_HPLND JT_115_XF_2	\$ 12,990.10
34474_HELM_70.0_34556_STRD JCT_70.0_BR_1_1	\$ 12,540.84
6310_CP6_NG	\$ 10,692.24
36851_NORTHERN_115_36852_SCOTT_115_BR_2_1	\$ 8,259.54
34887_TAP SKRN_70.0_34882_SAN EMDO_70.0_BR_1_1	\$ 7,861.64
HUMBOLDT_IMP_NG	\$ 2,766.04
22668_POWAY_69.0_22664_POMERADO_69.0_BR_1_1	\$ 2,027.96
31464_COTWDPGE_115_30105_COTTNWD_230_XF_1	\$ 1,119.53
32056_CORTINA_60.0_30451_CRTNA M_1.0_XF_1	\$ 985.43
31114_FRT SWRD_60.0_31116_GRBRVLE_60.0_BR_1_1	\$ 396.83
22296_FENTONTP_69.0_22292_FENTON_69.0_BR_1_1	\$ 276.12
31593_COWCREEK_60.0_31597_DESCHTP1_60.0_BR_1_1	\$ 109.95
32314_SMRTSVLE_60.0_32316_YUBAGOLD_60.0_BR_1_1	\$ 14.25
Totals	\$ 18,488,494.64

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

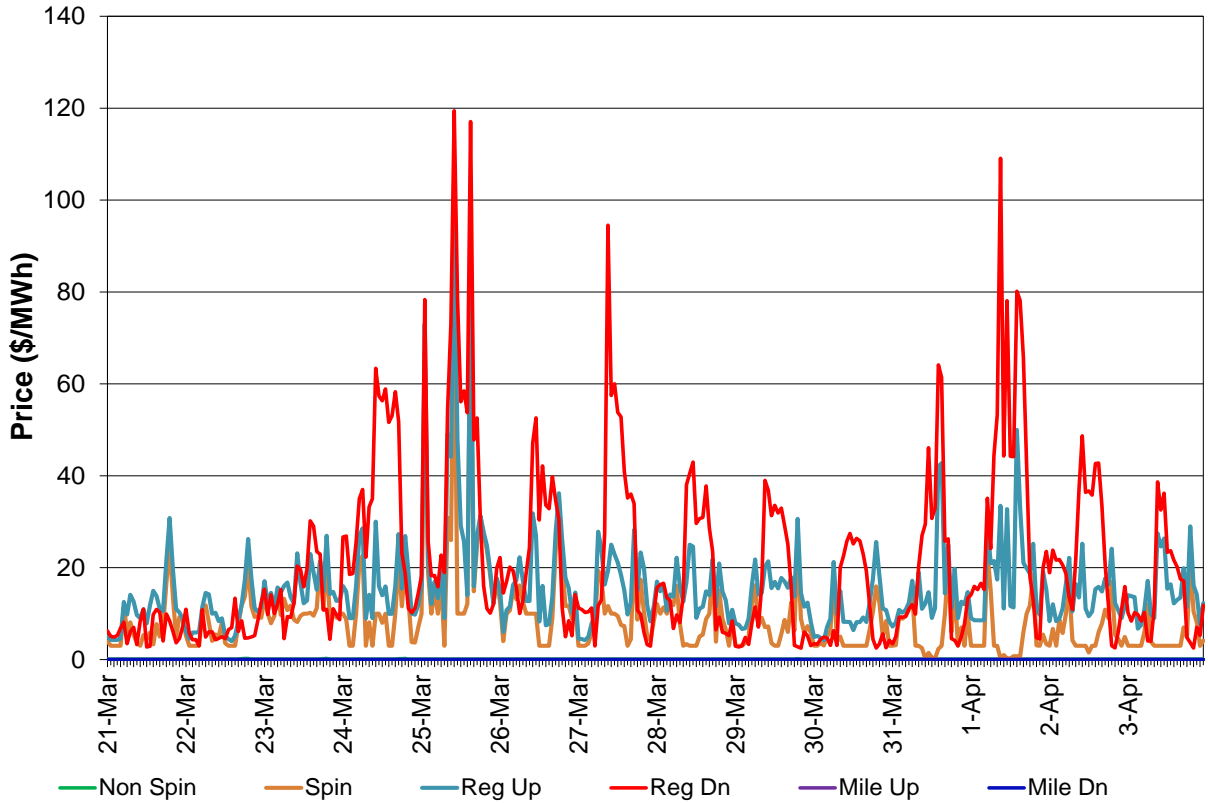


Figure 5: Day-Ahead Average RUC Price

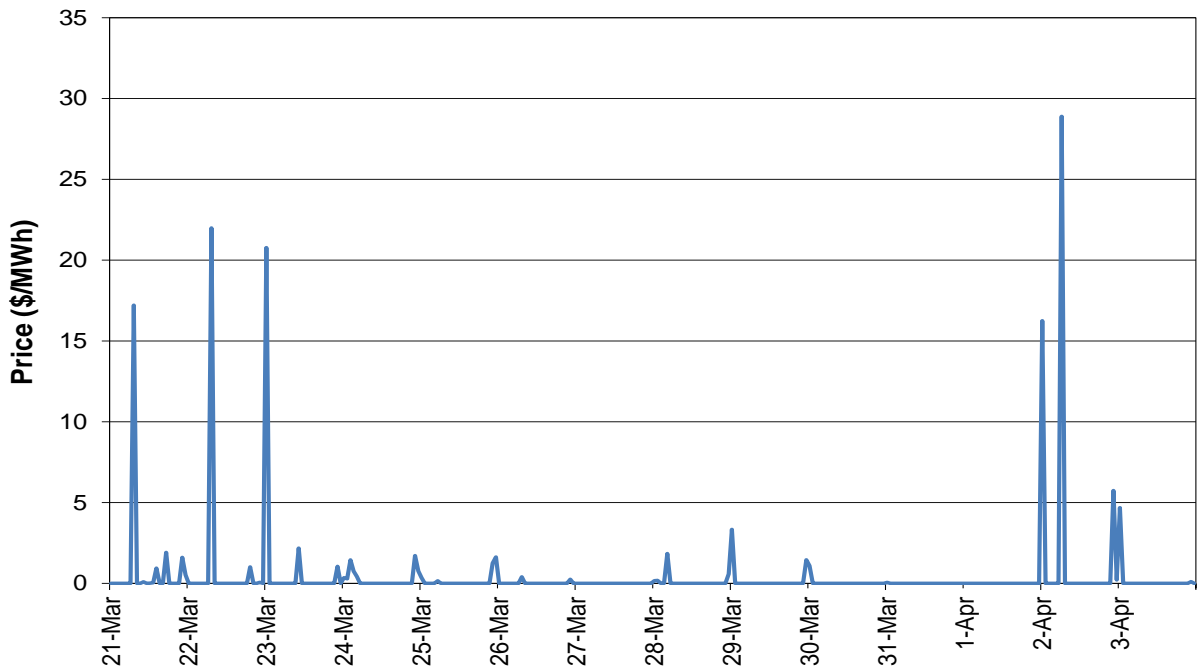




Figure 6: Real-Time FMM Average A/S Price

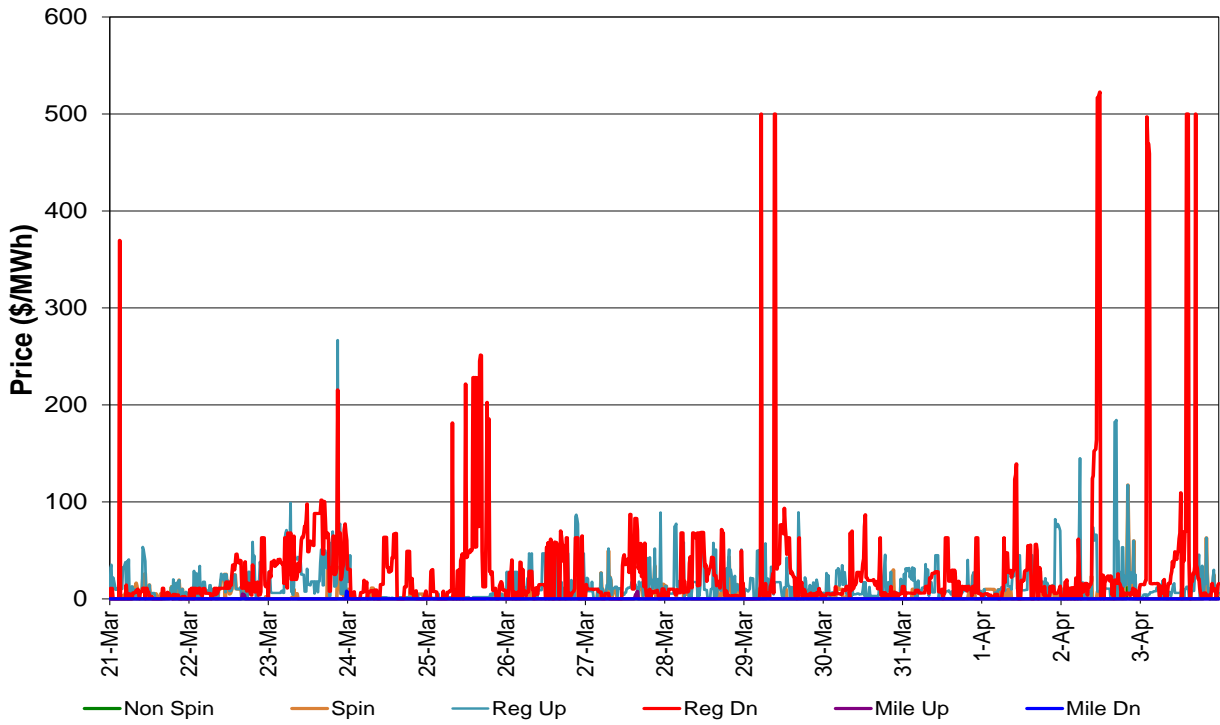


Figure 7: Real-Time FMM DLAP LMP

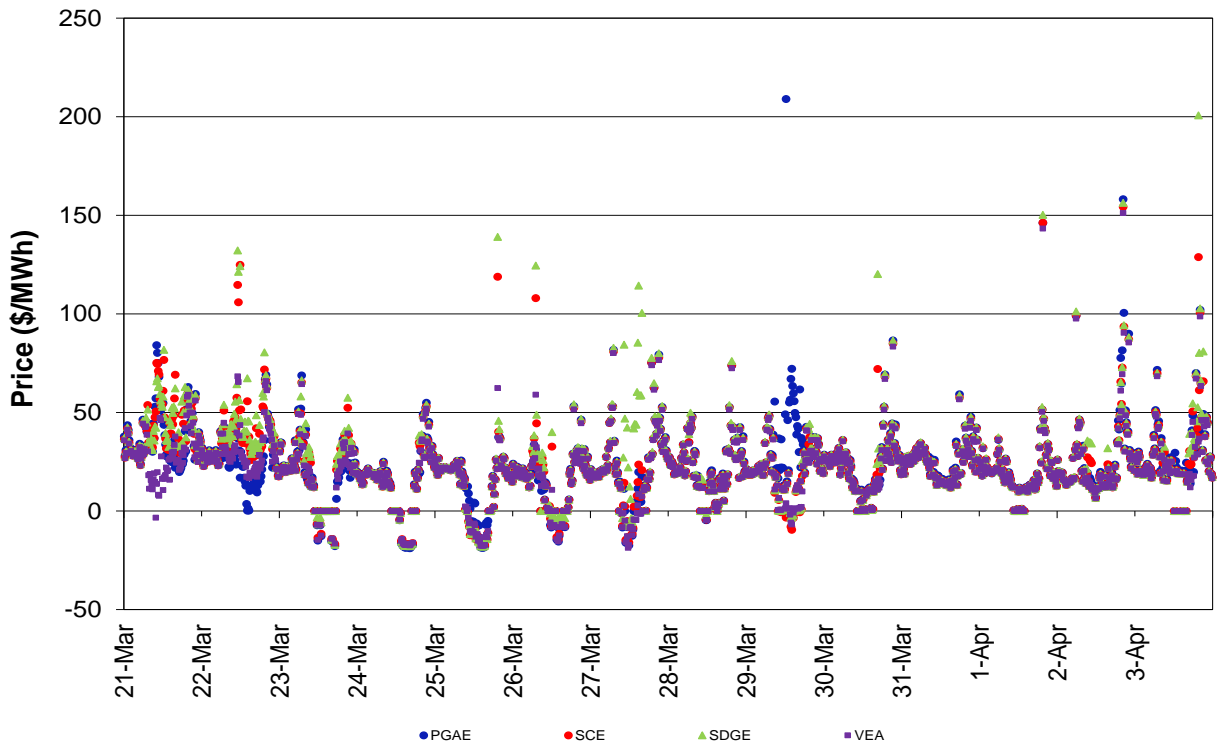


Figure 8: Real-Time RTD DLAP LMP

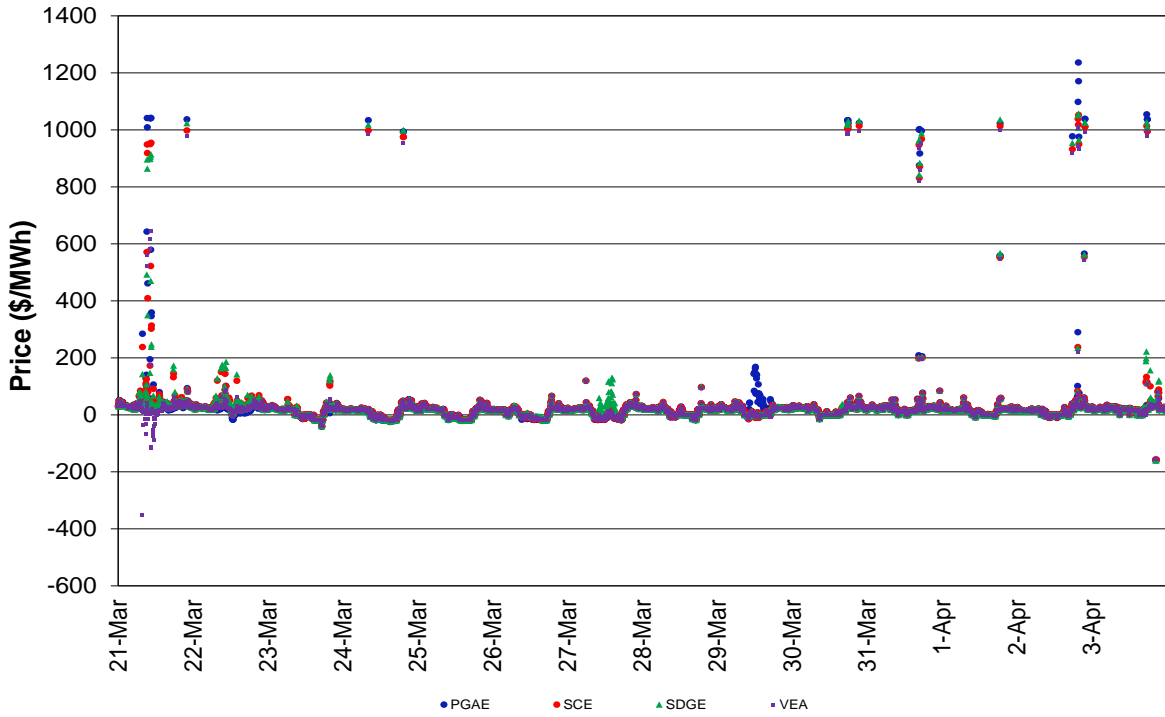


Figure 9: Real-Time FMM ELAP LMP

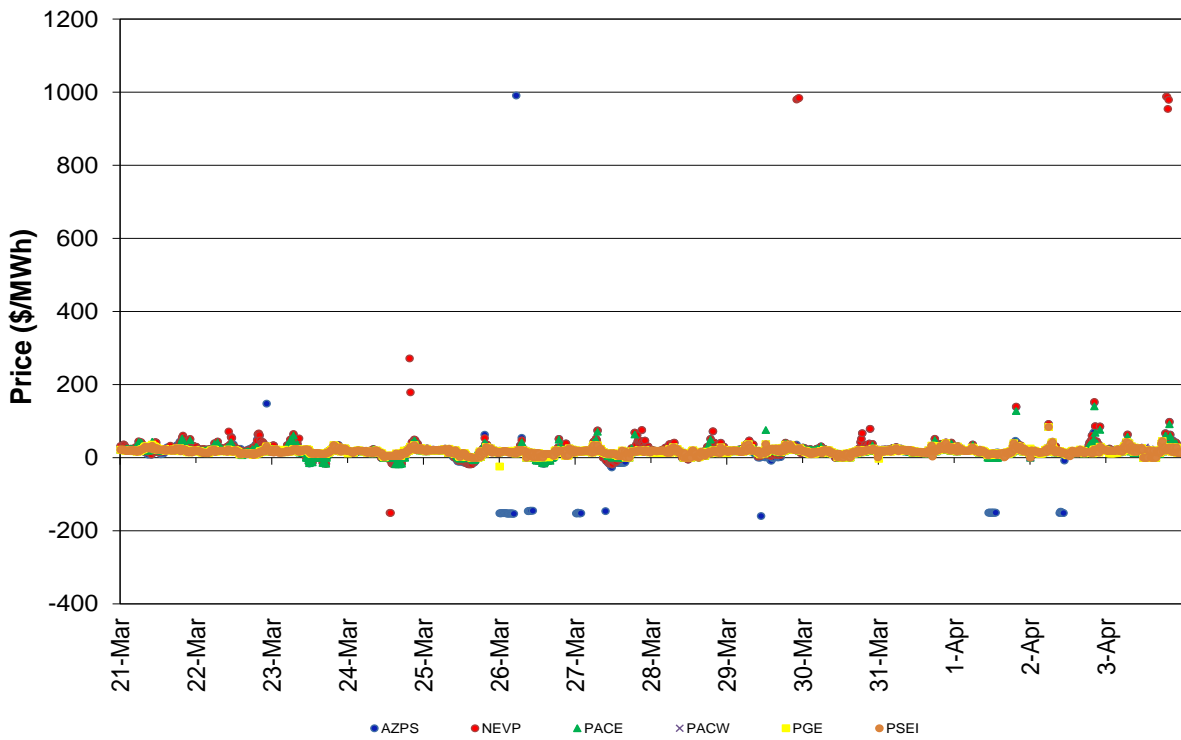




Figure 10: Real-Time RTD ELAP LMP

