



Market Highlights¹ (March 7–March 20)

- The average DLAP price in the integrated forward market was \$34.31. The maximum and minimum DLAP prices were \$99.39 and -\$4.13, respectively. The maximum and minimum PNode prices in the integrated forward market were \$101.58 and -\$9.27 respectively.
- The top two interties congested in the integrated forward market were MALIN500 and NOB_ITC. Congestion rents in these two weeks totaled \$25,947,699.92.
- The average day-ahead ancillary service prices were between \$0.00 and \$35.95.
- Approximately 96.72 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$31.61, with a maximum price of \$298.15 and a minimum price of -\$13.11. The maximum and minimum PNode prices in the FMM were \$383.68 and -\$83.57, respectively.
- Out of the total 1,344 FMM intervals, 1 intervals saw DLAP prices above \$250, and 0 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 15 intervals saw ELAP prices above \$250 and 2 intervals saw ELAP prices below -\$150.
- The average real-time FMM ELAP price was \$23.55, with a maximum price of \$1,209.13 and a minimum price of -\$172.28.
- The average real-time RTD DLAP price was \$38.90, with a maximum price of \$1,063.63 and a minimum price of -\$33.43. The maximum and minimum PNode prices in the RTD were \$1,169.79 and -\$170.33, respectively.
- Out of the total 4,032 RTD intervals, 56 intervals saw DLAP prices above \$250 and 0 interval saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 75 intervals saw ELAP prices above \$250 and 14 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$26.47, with a maximum price of \$1,024.38 and a minimum price of -\$174.09.
- Root cause for daily high price events are noted in Tables 1 and 2.

Table 1 FMM Intervals	
Trade Date	Root Cause
FMM Mar 13 HE 20	Congestion on MIGUEL_BKs_MXFLW_NG.

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

Table 2 RTD Intervals	
Trade Date	Root Cause
RTD Mar 7 HE 8, 9	Renewable deviation.
RTD Mar 8 HE 17	Congestion on 24021_CENTER S_230_24091_MESA CAL_230_BR_1_1 and congestion on 24138_SERRANO_500_24137_SERRANO_230_XF_1_P.
RTD Mar 10 HE 8; Mar 20 HE 1	Load changes and re-dispatch of resources.
RTD Mar 11 HE 7, 8	Load changes and renewable deviation.
RTD Mar 11 HE 20, 21	Load changes, re-dispatch of resources, and reduction of net import.
RTD Mar 11 HE 22	Re-dispatch of resources.
RTD Mar 12 HE 17	Congestion on 24021_CENTER S_230_24091_MESA CAL_230_BR_1_1.
RTD Mar 13 HE 9	Renewable deviation and re-dispatch of resources.
RTD Mar 13 HE 19	Congestion on MIGUEL_BKs_MXFLW_NG.
RTD Mar 15 HE 23	Load changes.
RTD Mar 16 HE 23	Generator outage and reduction of net imports.
RTD Mar 17 HE 16, 17	Load changes, renewable deviation, and congestion on 40687_MALIN_500_30005_ROUND MT_500_BR_1_3.
RTD Mar 20 HE 9, 18	Congestion on OMS 5784730_OP-6610.
RTD Mar 20 HE 23	Re-dispatch of resources and reduction of net imports.

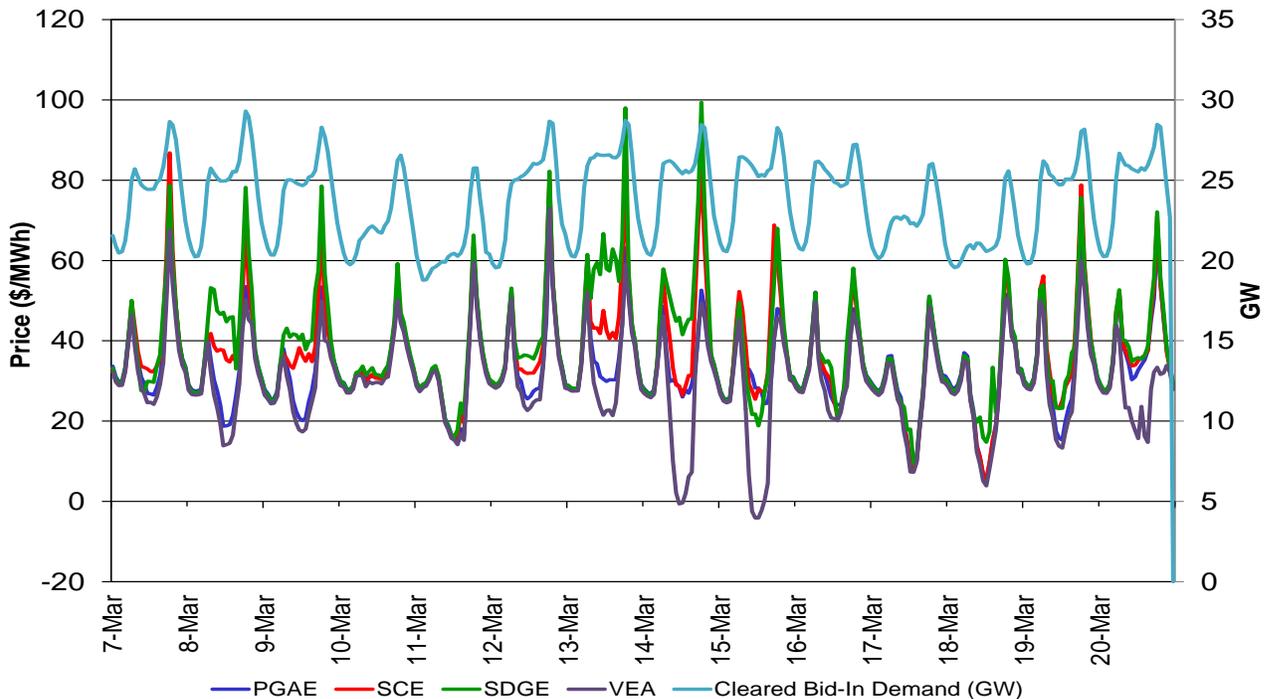
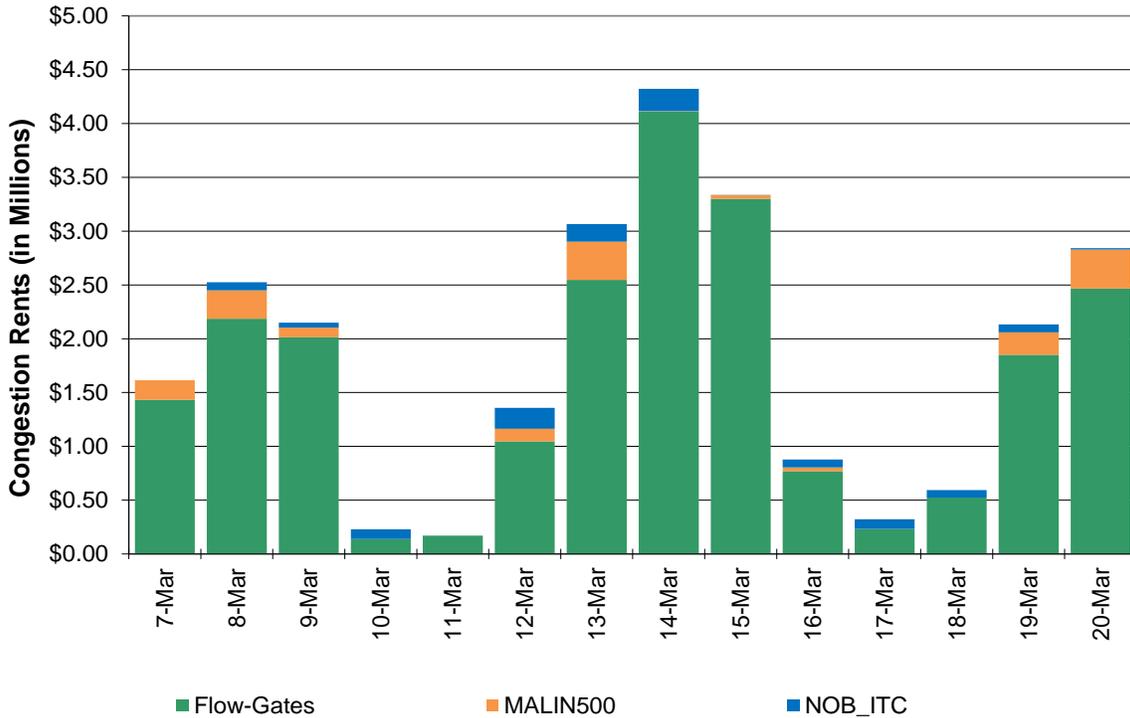
Figure 1: Day-Ahead (IFM) LAP LMP and Cleared Bid-In Demand


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	10508609.14
24029_DELAMO_230_24021_CENTER S_230_BR_1_1	2696314.84
24036_EAGLROCK_230_24059_GOULD_230_BR_1_1	2104551.99
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	1402726.33
24086_LUGO_500_26105_VICTORVL_500_BR_1_1	1311079.36
6410_CP10_NG	749773.78
24021_CENTER S_230_24091_MESA CAL_230_BR_1_1	621606.21
OMS 5286043 DV_SB	577748.69
MIGUEL_BKs_MXFLW_NG	530685.92
OMS 5286043 DV_VST2	507861.80
7820_TL_230S_OVERLOAD_NG	303048.16
22272_ESCO_69.0_22876_WARCYNTP_69.0_BR_1_1	264089.68
22056_BERNARDO_69.0_22676_R.CARMEL_69.0_BR_1_1	233504.11
22480_MIRAMAR_69.0_22756_SCRIPPS_69.0_BR_1_1	212158.27
25001_GOODRICH_230_24076_LAGUBELL_230_BR_1_1	126956.86
34548_KETTLEMN_70.0_34552_GATES_70.0_BR_1_1	107998.43
OMS 5736579 SUNCREST BK81_NG	96432.62
22824_SWTWTRTP_69.0_22820_SWEETWTR_69.0_BR_1_1	94513.62

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

Transmission Constraint	Congestion Rent
31334_CLER LKE_60.0_31338_KONOCTI6_60.0_BR_1_1	56780.45
31225_HGHLNDJ1_115_31222_REDBUD_115_BR_1_1	50670.90
22500_MISSION_138_22120_CARLTNHS_138_BR_1_1	32831.66
34418_KINGSBRG_115_34405_FRWT TAP_115_BR_1_1	31574.80
99254_J.HINDS2_230_24806_MIRAGE_230_BR_1_1	27780.47
22256_ESCNDIDO_69.0_22724_SANMRCOS_69.0_BR_1_1	25466.08
31962_WDLND_BM_115_31970_WOODLD_115_BR_1_1	21464.01
22442_MELRSETP_69.0_22724_SANMRCOS_69.0_BR_1_1	14923.71
34469_GFFNJCT_70.0_34470_GIFFEN_70.0_BR_1_1	14067.55
22820_SWEETWTR_69.0_22476_MIGUELTP_69.0_BR_1_1	11480.31
22831_SYCAMORE_138_22124_CHCARITA_138_BR_1_1	10224.96
31220_EGLE RCK_115_31225_HGHLNDJ1_115_BR_1_1	7987.25
31464_COTWDPGE_115_30105_COTTNWD_230_XF_1	7105.28
22056_BERNARDO_69.0_22009_ARTESN_69.0_BR_1_1	6620.95
24132_SANBRDNO_230_24804_DEVERS_230_BR_1_1	5683.73
31461_JESSTAP_115_31464_COTWDPGE_115_BR_1_1	5395.36
22668_POWAY_69.0_22664_POMERADO_69.0_BR_1_1	5124.51
22256_ESCNDIDO_69.0_22272_ESCO_69.0_BR_1_1	2810.20
22296_FENTONTP_69.0_22292_FENTON_69.0_BR_1_1	2202.49
34269_BIOMSJCT_70.0_34268_MENDOTA_70.0_BR_1_1	1247.66
34405_FRWT TAP_115_34420_CORCORAN_115_BR_1_1	635.08
24114_PARDEE_230_24147_SYLMAR S_230_BR_2_1	592.14
HUMBOLDT IMP_NG	219.05
31214_GEYERS56_115_31220_EGLE RCK_115_BR_1_1	214.87
22644_PENSQTOS_69.0_22164_DELMARTP_69.0_BR_1_1	117.44
Totals	\$ 22,792,880.74

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

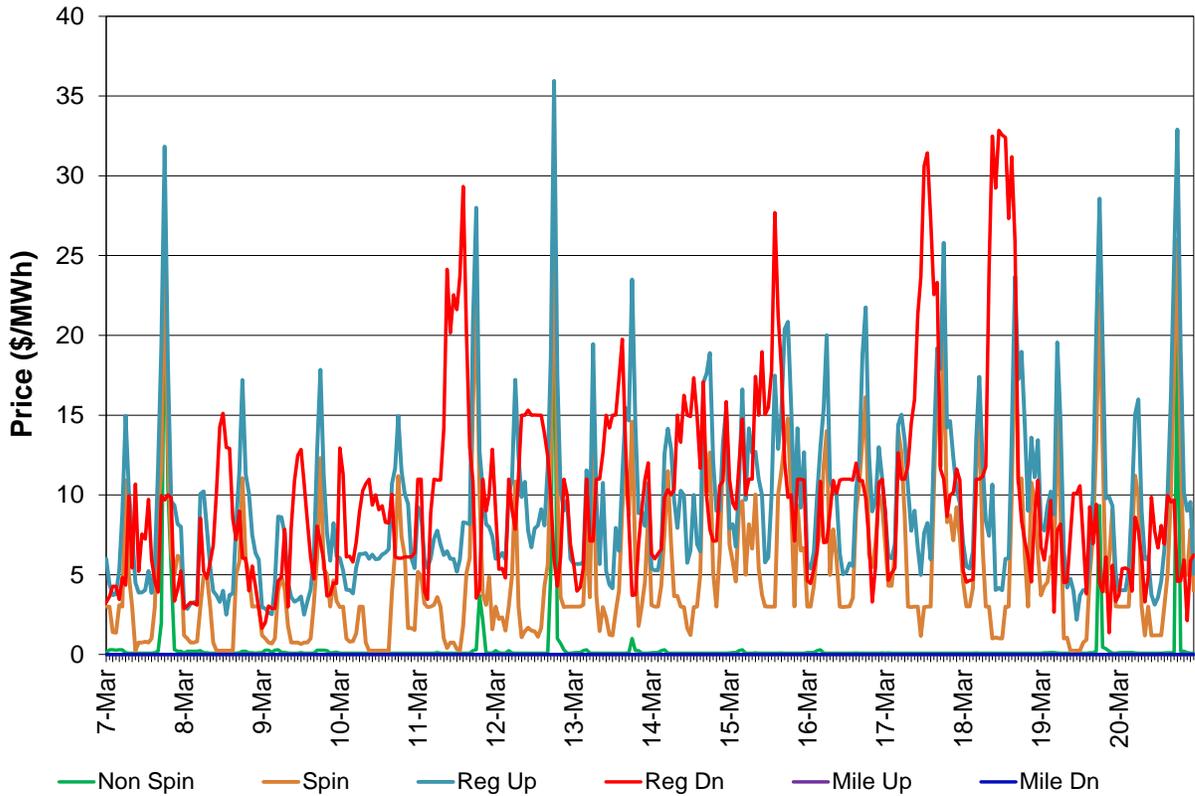


Figure 5: Day-Ahead Average RUC Price

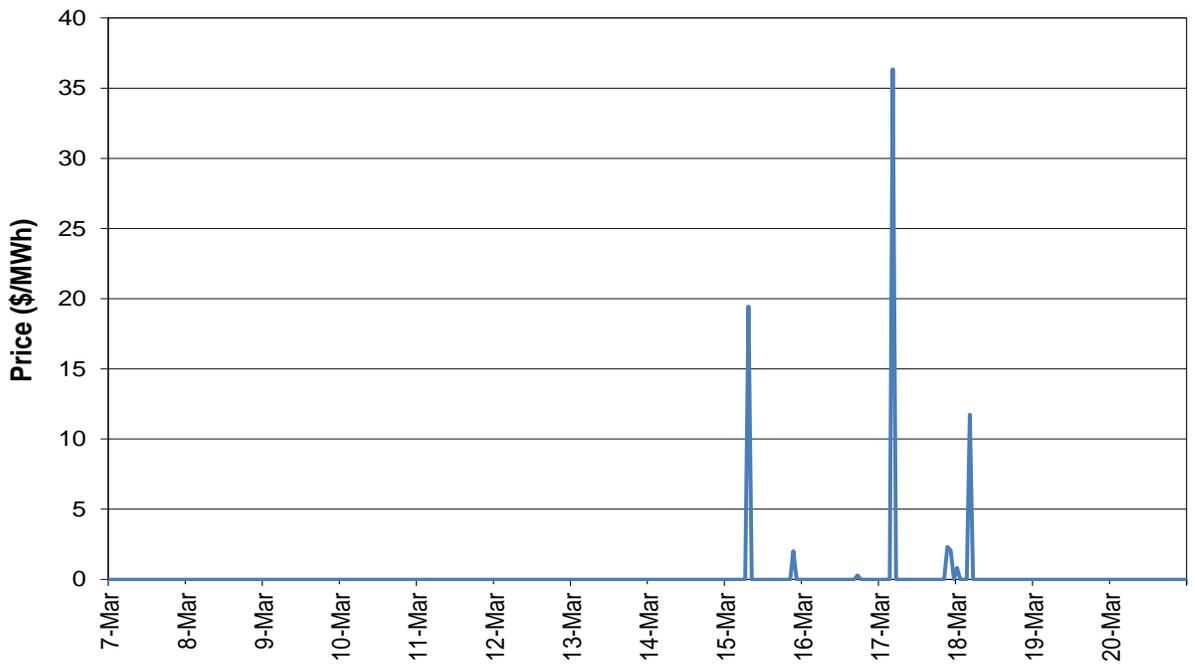


Figure 6: Real-Time FMM Average A/S Price

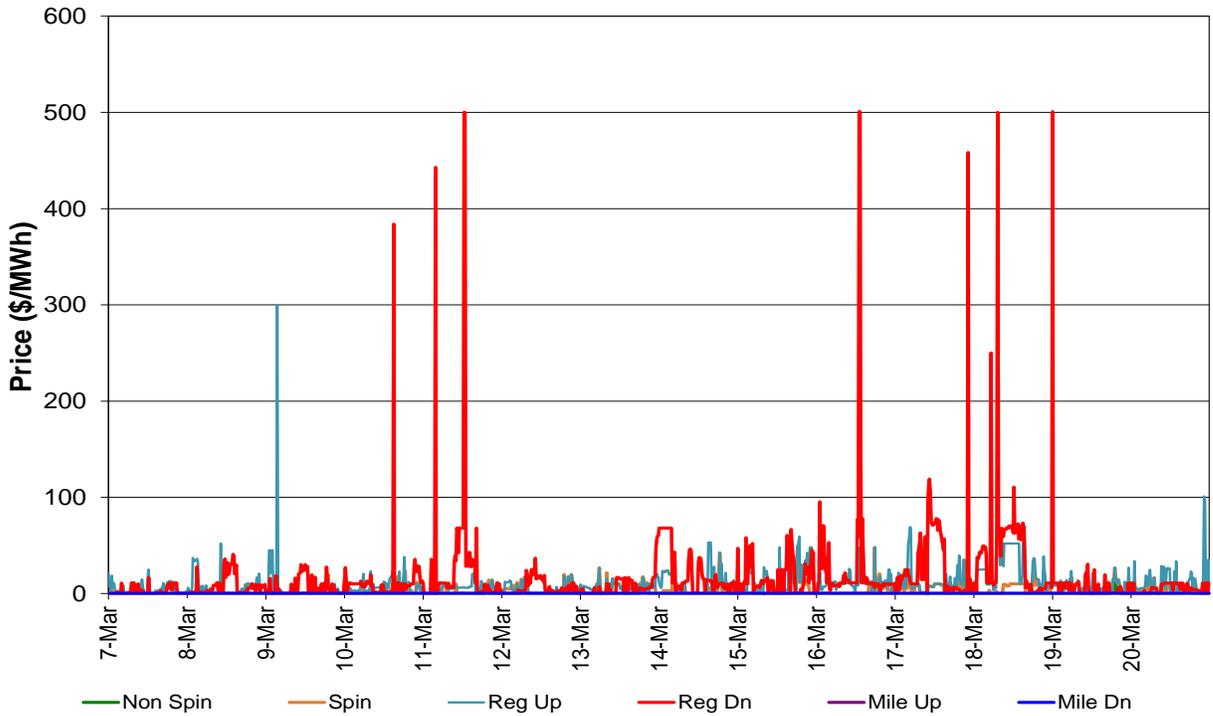


Figure 7: Real-Time FMM DLAP LMP

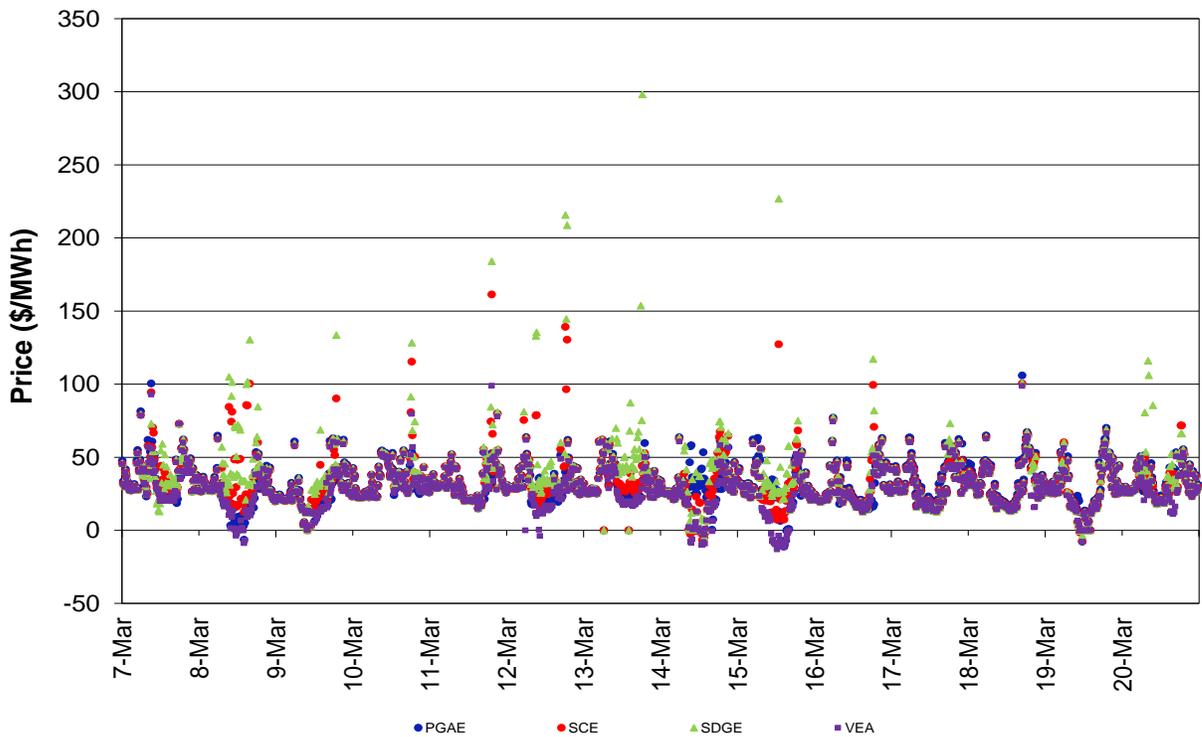


Figure 8: Real-Time RTD DLAP LMP

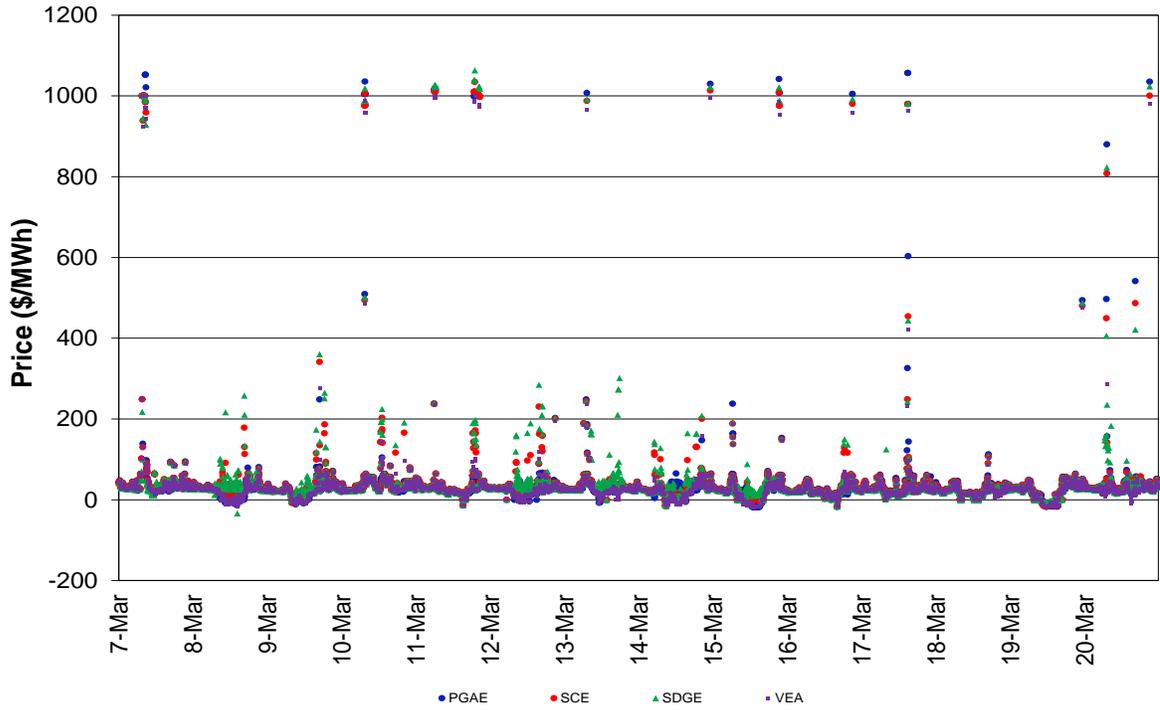


Figure 9: Real-Time FMM ELAP LMP

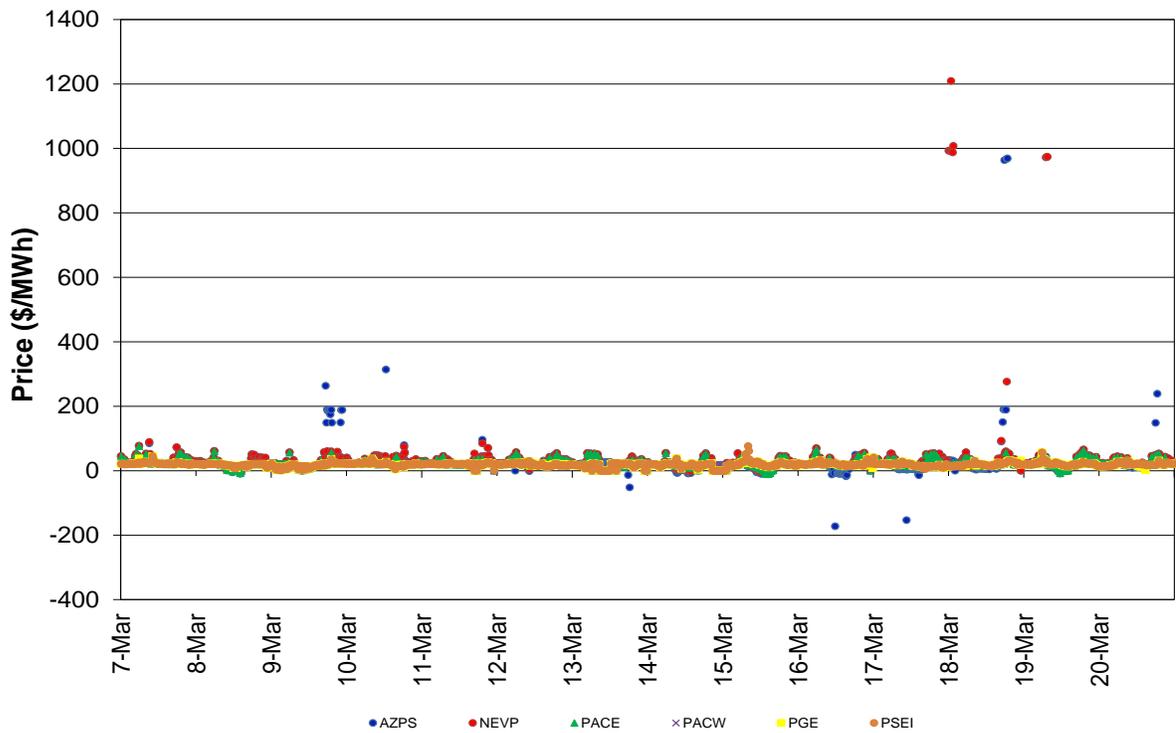




Figure 10: Real-Time RTD ELAP LMP

