

Market Highlights¹ (April 18–May 1)

- The average DLAP price in the integrated forward market was \$25.74. The maximum and minimum DLAP prices were \$98.52 and -\$17.33, respectively. The maximum and minimum PNode prices in the integrated forward market were \$98.55 and -\$162.93 respectively.
- The top two interties congested in the integrated forward market were NOB_ITC and MALIN500. Congestion rents in these two weeks totaled \$19,945,870.13.
- The average day-ahead ancillary service prices were between \$0.00 and \$65.78.
- Approximately 87.30 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$24.24, with a maximum price of \$1,040.65 and a minimum price of -\$17.73. The maximum and minimum PNode prices in the FMM were \$1,992.70 and -\$1,070.23, respectively.
- Out of the total 1,344 FMM intervals, 10 intervals saw DLAP prices above \$250, and 0 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 16 intervals saw ELAP prices above \$250 And 23 intervals saw ELAP prices below -\$150.
- The average real-time FMM ELAP price was \$18.27, with a maximum price of \$1,009.37 and a minimum price of -\$154.31.
- The average real-time RTD DLAP price was \$18.74, with a maximum price of \$1,051.88 and a minimum price of -\$42.88. The maximum and minimum PNode prices in the RTD were \$1,997.00 and -\$1,090.23, respectively.
- Out of the total 4,032 RTD intervals, 16 intervals saw DLAP prices above \$250 and 0 interval saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 51 intervals saw ELAP prices above \$250 and 95 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$15.93, with a maximum price of \$1,011.35 and a minimum price of -\$156.57.
- Root cause for daily high price events are noted in Tables 1 and Table 2.

Table 1 FMM Intervals	
Trade Date	Root Cause
FMM Apr 18 HE 6; Apr 22 HE 19	Load changes.
FMM Apr 18 HE 12	Congestion on OMS 5730606 TL50003_NG

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
FMM Apr 18 HE 23, 24; Apr 19 HE 9, 13	Congestion on MIGUEL_BKs_MXFLW_NG
FMM Apr 19 HE 12	Congestion on MIGUEL_BKs_MXFLW_NG and congestion on OMS 5730606 TL50003_NG
FMM Apr 22 HE 22	Generator outage.
FMM Apr 27 HE 8	Changes in renewable deviation and congestion 7820_TL 230S_OVERLOAD_NG.

Table 1 RTD Intervals	
Trade Date	Root Cause
RTD Apr 19 HE 11, 12	Congestion on MIGUEL_BKs_MXFLW_NG.
RTD Apr 25 HE 6	Congestion on 6410_CP5_NG and load changes.
RTD Apr 25 HE 19; Apr 27 HE 19	Congestion on 6410_CP5_NG and renewable deviation.
RTD Apr 25 HE 21	Congestion on 6410_CP5_NG and re-dispatch of resources.
RTD Apr 30 HE 21	Reduction of net imports, renewable deviation, congestion on OP-6610_ELD_LUGO and RM_TM12_NG.
RTD Apr 30 HE 22	Load changes and congestion on OP-6610_ELD_LUGO and RM_TM12_NG.

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

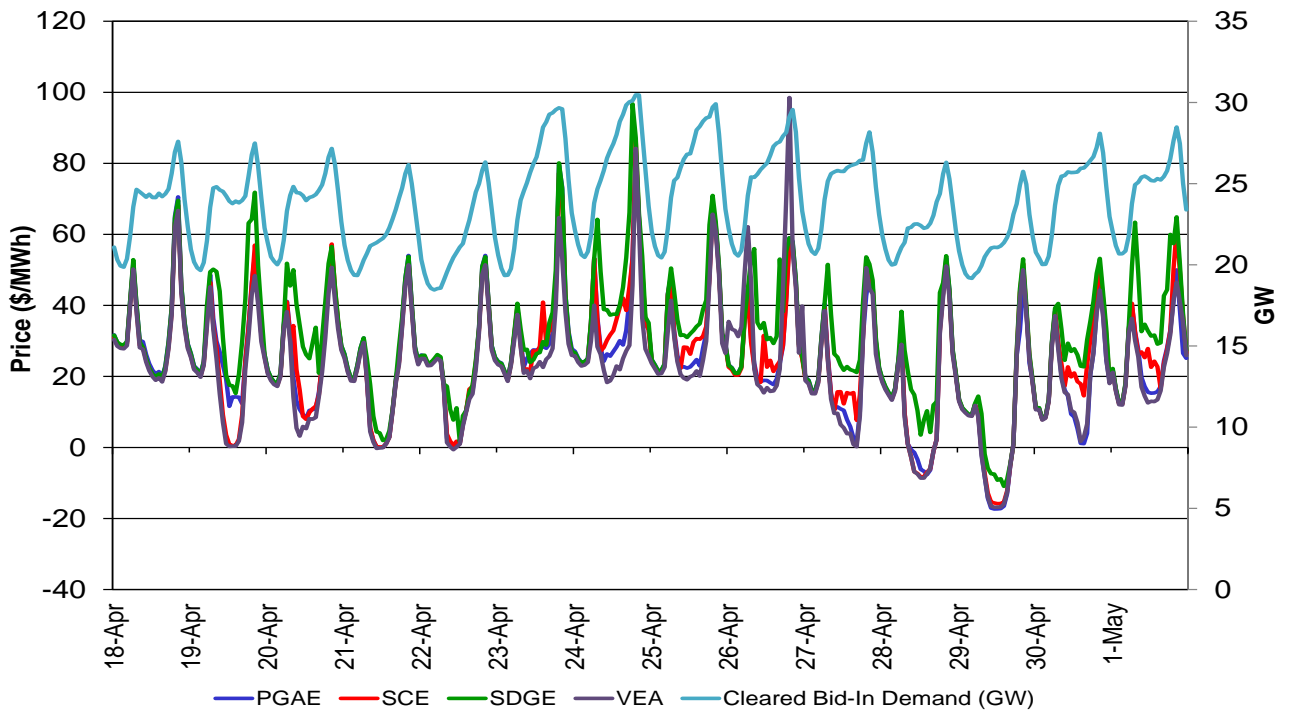
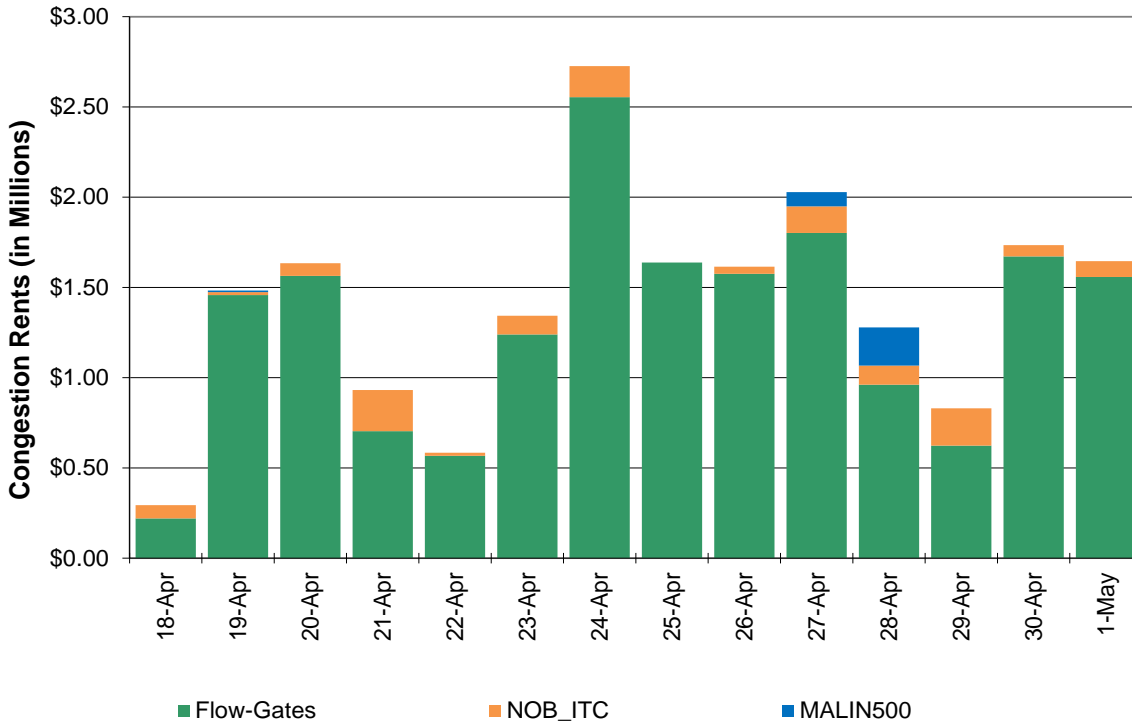


Figure 2: Day-Ahead Congestion Rents

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

Transmission Constraint	Congestion Rent
24016_BARRE _230_24154_VILLA PK_230_BR_1_1	\$ 3,296,771.70
35612_TRIMBLE _115_35616_SNJOSEB _115_BR_1_1	\$ 2,592,494.33
22192_DOUBLTTP _138_22300_FRIARS _138_BR_1_1	\$ 2,391,730.39
24086_LUGO _500_26105_VICTORVL_500_BR_1_1	\$ 1,245,924.56
24092_MIRALOMA_500_24093_MIRALOM_230_XF_4_P	\$ 1,193,713.34
30523_CC SUB _230_30525_C.COSTA_230_BR_1_1	\$ 861,450.63
24036_EAGLROCK_230_24059_GOULD _230_BR_1_1	\$ 793,408.35
36851_NORTHERN_115_36852_SCOTT _115_BR_2_1	\$ 693,888.71
30050_LOSBANOS_500_30055_GATES1_500_BR_1_1	\$ 587,116.05
OMS 5730606 TL50003_NG	\$ 548,086.51
7820_TL 230S_OVERLOAD_NG	\$ 488,925.62
30500_BELLOTA_230_30515_WARNERVL_230_BR_1_1	\$ 414,155.05
34548_KETTLEMN_70.0_34552_GATES _70.0_BR_1_1	\$ 397,629.28
32056_CORTINA_60.0_30451_CRTNA M_1.0_XF_1	\$ 351,778.29
MIGUEL_BKs_MXFLW_NG	\$ 337,937.62
34427_ATWELL _115_34701_SMYRNA 1_115_BR_1_1	\$ 300,700.06
24016_BARRE _230_25201_LEWIS _230_BR_1_1	\$ 199,562.53
30790_PANOCHÉ _230_30900_GATES _230_BR_1_1	\$ 197,922.07
6410_CP5_NG	\$ 137,312.85

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

Transmission Constraint	Congestion Rent
30055_GATES1_500_30900_GATES_230_XF_11_S	\$ 104,062.86
33936_MELNS JB_115_33951_VLYHMTP1_115_BR_1_1	\$ 94,153.94
34112_EXCHEQUR_115_34116_LE GRAND_115_BR_1_1	\$ 80,654.11
31218_ER_FTNJT_115_31220_EGLE RCK_115_BR_1_1	\$ 75,500.58
34116_LE GRAND_115_34134_WILSONAB_115_BR_1_1	\$ 75,278.20
31466_JESSUP_115_31469_SPI_AND_115_BR_1_1	\$ 73,086.79
31968_WODLNDJ2_115_31973_ZMORA J2_115_BR_2_1	\$ 61,222.15
34385_KINGSJCT_115_34435_GUARD J2_115_BR_1_1	\$ 58,279.44
36067_LCCHS J1_60.0_36072_COBRN J2_60.0_BR_1_1	\$ 57,357.76
34860_TAFT_70.0_34943_Q356TAP_70.0_BR_1_1	\$ 56,896.04
31461_JESSTAP_115_31464_COTWDPGE_115_BR_1_1	\$ 47,092.45
33020_MORAGA_115_30550_MORAGA_230_XF_2_P	\$ 42,189.56
32218_DRUM_115_32244_BRNSWKT2_115_BR_2_1	\$ 40,941.44
34859_PRMTFMTP_70.0_34873_Q484TP_70.0_BR_1_1	\$ 39,491.76
30114_DELEVAN_230_30450_CORTINA_230_BR_1_1	\$ 31,487.89
34469_GFFNJCT_70.0_34470_GIFFEN_70.0_BR_1_1	\$ 28,145.24
34418_KINGSBRG_115_34405_FRWT TAP_115_BR_1_1	\$ 24,023.80
30765_LOSBANOS_230_30790_PANOCHÉ_230_BR_2_1	\$ 21,002.08
34887_TAP SKRN_70.0_34882_SAN EMDO_70.0_BR_1_1	\$ 12,621.90
32225_BRNSWKT1_115_32222_DTCH2TAP_115_BR_1_1	\$ 10,750.43
31256_FLTN JT1_115_31998_VACA-DIX_115_BR_1_1	\$ 8,582.25
22831_SYCAMORE_138_22124_CHCARITA_138_BR_1_1	\$ 8,327.32
34700_SMYRNA 2_115_34742_SEMITRPJ_115_BR_1_1	\$ 7,871.18
31336_HPLND JT_60.0_31370_CLVRDLJT_60.0_BR_1_1	\$ 6,475.98
31334_CLER LKE_60.0_31338_KONOCIT6_60.0_BR_1_1	\$ 6,211.41
31990_DAVIS_115_31962_WDLND_BM_115_BR_1_1	\$ 5,268.15
33916_CURTISS_115_33917_FBERBORD_115_BR_1_1	\$ 5,145.64
31080_HUMBOLDT_60.0_31088_HMBLT JT_60.0_BR_1_1	\$ 5,066.62
33360_HILLSDLÉ_60.0_33361_HLLSDLJT_60.0_BR_1_1	\$ 2,910.72
33932_MELONES_115_33936_MELNS JB_115_BR_1_1	\$ 1,889.26
32326_ENCL TAP_60.0_32332_PEASE_60.0_BR_1_1	\$ 1,813.79
34758_LAMONT_115_34805_ARVINJ1_115_BR_1_1	\$ 1,299.94
33045_FIBRJCT1_115_33049_RIVERVIEW_115_BR_1_1	\$ 1,268.68
34474_HELM_70.0_34556_STRD JCT_70.0_BR_1_1	\$ 943.54
31110_BRDGVLLÉ_60.0_31112_FRUITLND_60.0_BR_1_1	\$ 901.42
31000_HUMBOLDT_115_31015_BRDGVLLÉ_115_BR_1_1	\$ 752.60
36075_COBURN_60.0_30760_COBURN_230_XF_1	\$ 271.76
22296_FENTONTP_69.0_22292_FENTON_69.0_BR_1_1	\$ 99.62
33020_MORAGA_115_30550_MORAGA_230_XF_1_P	\$ 93.97
31464_COTWDPGE_115_30105_COTTNWD_230_XF_1	\$ 50.57
31214_GEYERS56_115_31220_EGLE RCK_115_BR_1_1	\$ 25.52
Totals	\$ 18,130,016.28



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

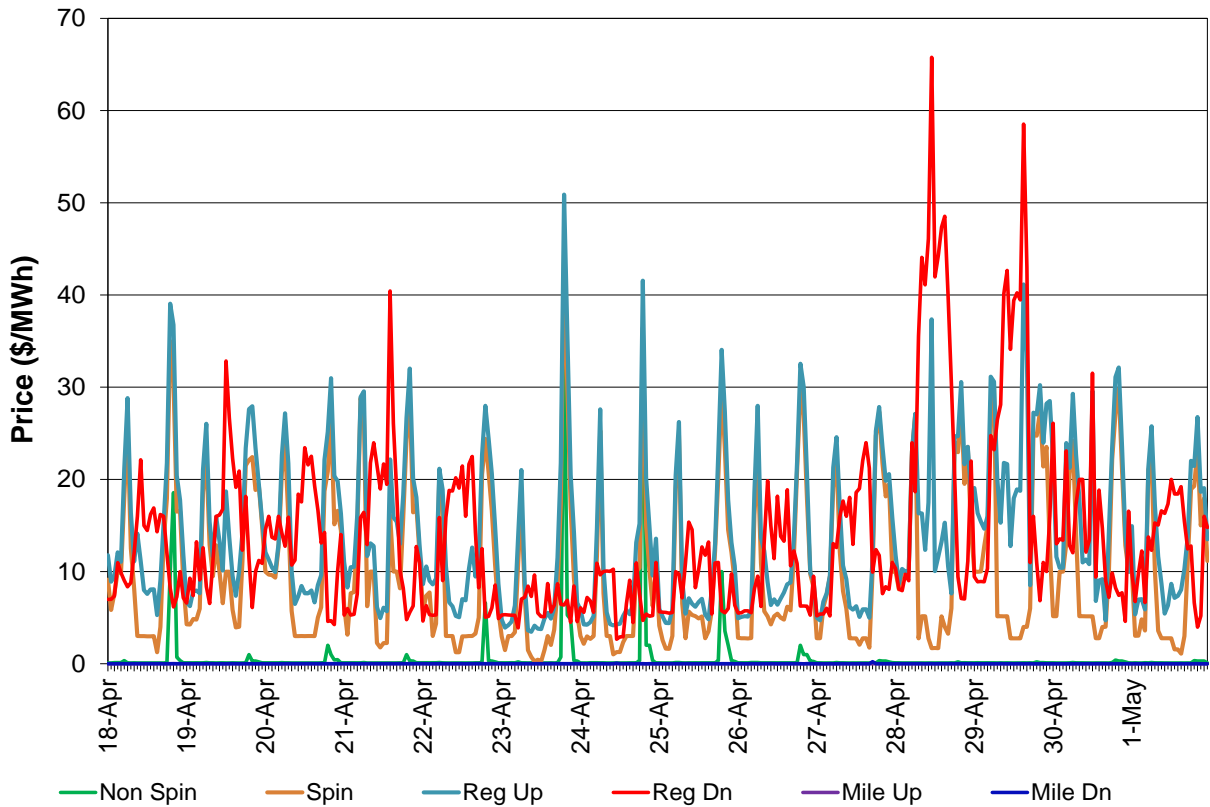


Figure 5: Day-Ahead Average RUC Price

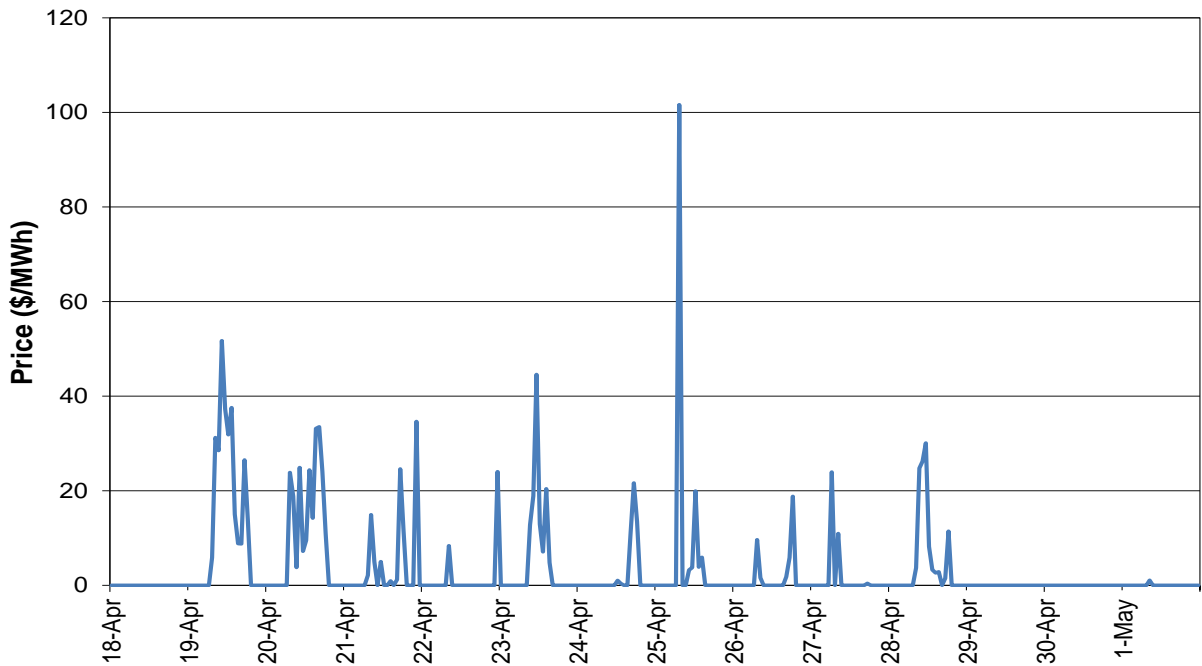




Figure 6: Real-Time FMM Average A/S Price

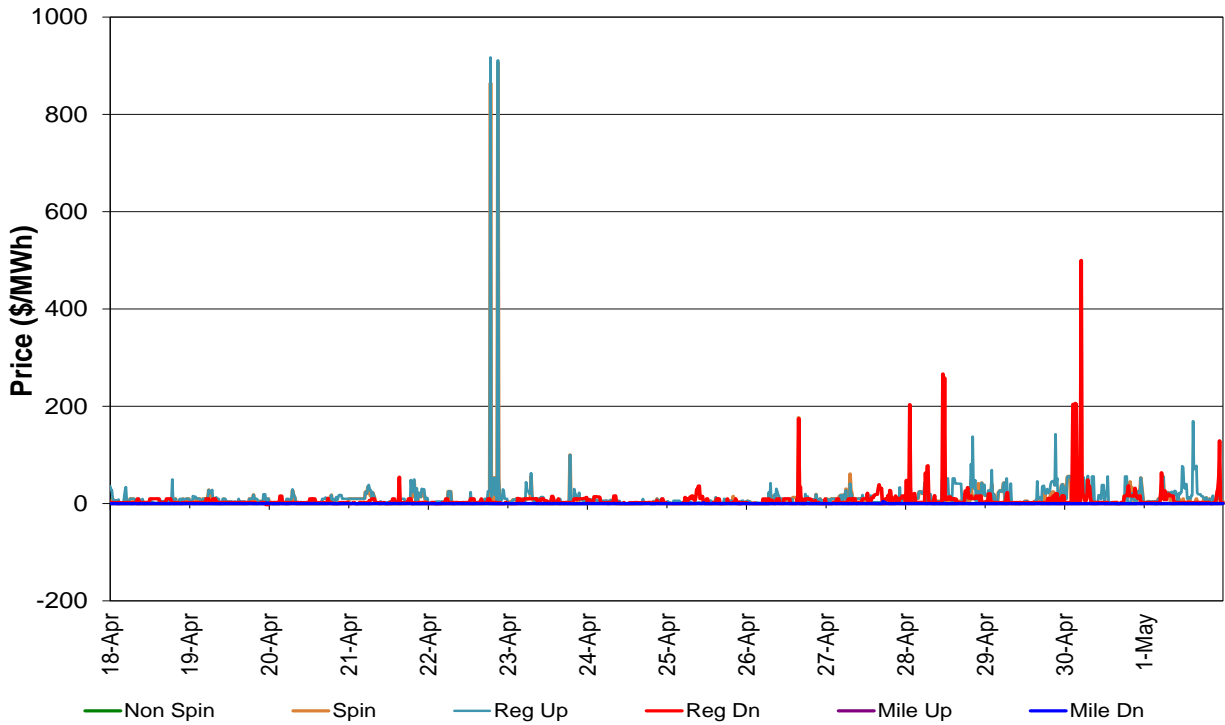


Figure 7: Real-Time FMM DLAP LMP

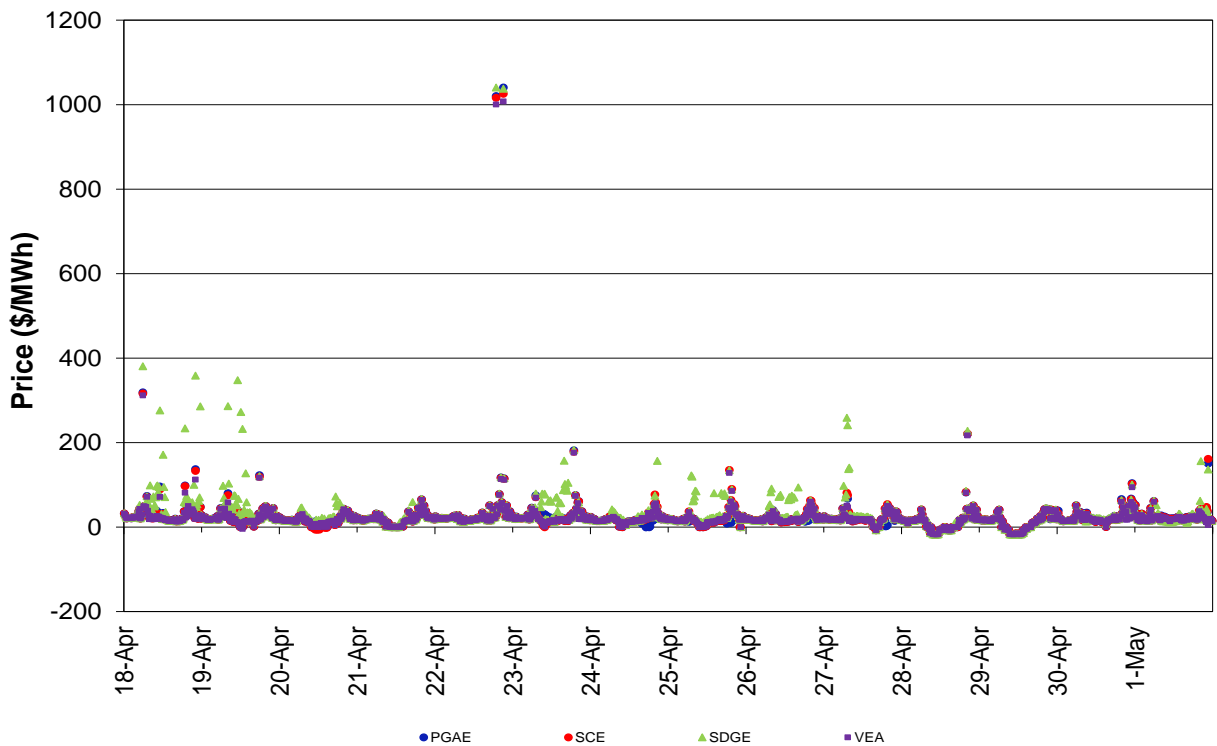


Figure 8: Real-Time RTD DLAP LMP

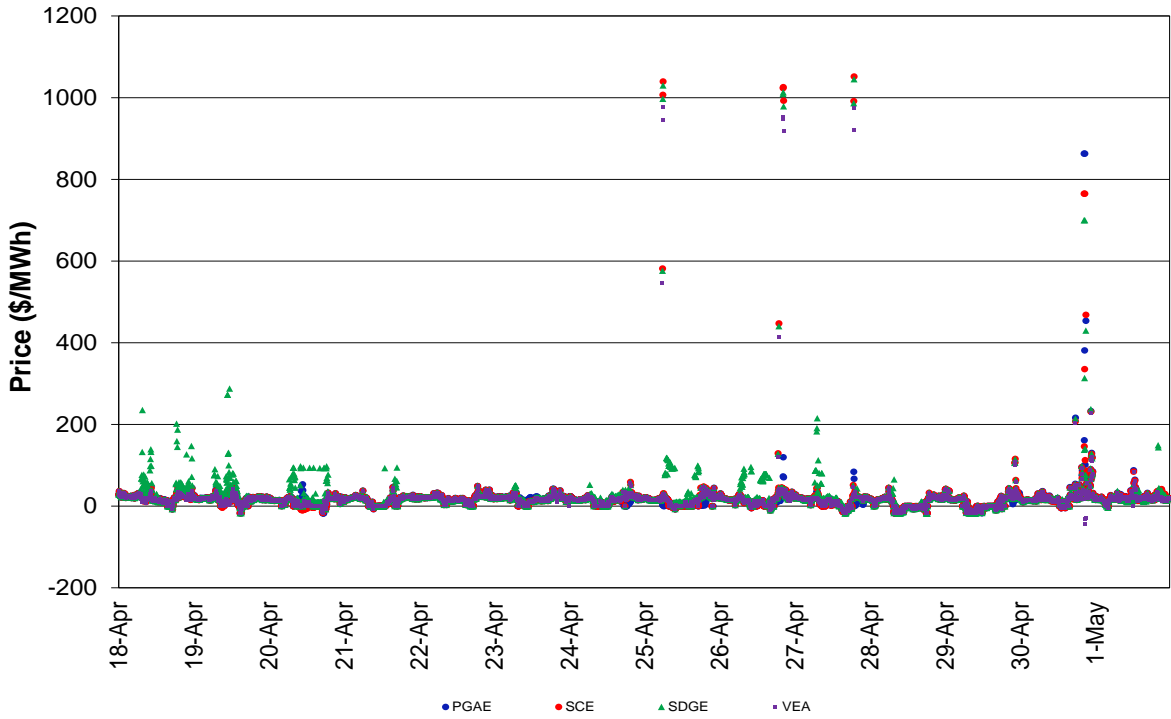


Figure 9: Real-Time FMM ELAP LMP

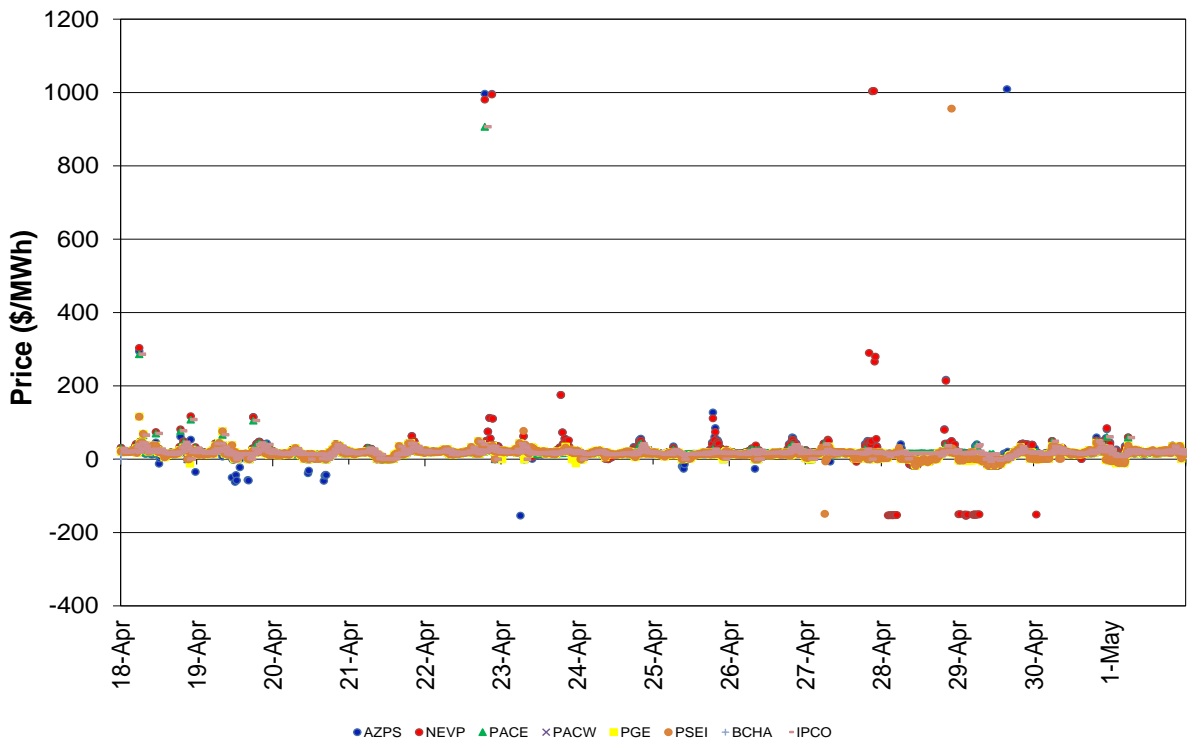


Figure 10: Real-Time RTD ELAP LMP

