

Market Highlights¹ (May 2–May 15)

- The average DLAP price in the integrated forward market was \$24.99. The maximum and minimum DLAP prices were \$87.77 and -\$13.78, respectively. The maximum and minimum PNode prices in the integrated forward market were \$91.54 and -\$100.00 respectively.
- The top two interties congested in the integrated forward market were NOB_ITC and MALIN500. Congestion rents in these two weeks totaled \$25,176,117.38.
- The average day-ahead ancillary service prices were between \$0.00 and \$77.81.
- Approximately 98.14 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$23.91, with a maximum price of \$797.92 and a minimum price of -\$17.21. The maximum and minimum PNode prices in the FMM were \$2,429.15 and -\$453.21, respectively.
- Out of the total 1,344 FMM intervals, 8 intervals saw DLAP prices above \$250, and 0 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 7 intervals saw ELAP prices above \$250 And 19 intervals saw ELAP prices below -\$150.
- The average real-time FMM ELAP price was \$16.28, with a maximum price of \$981.24 and a minimum price of -\$195.76.
- The average real-time RTD DLAP price was \$25.38, with a maximum price of \$1,316.76 and a minimum price of -\$42.83. The maximum and minimum PNode prices in the RTD were \$2,537.50 and -\$469.00, respectively.
- Out of the total 4,032 RTD intervals, 38 intervals saw DLAP prices above \$250 and 0 interval saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 64 intervals saw ELAP prices above \$250 and 56 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$17.35, with a maximum price of \$1,218.81 and a minimum price of -\$159.78.
- Root cause for daily high price events are noted in Tables 1 and Table 2.

Table 1 FMM Intervals	
Trade Date	Root Cause
FMM May 2 HE 21	Congestion on 22831_SYCAMORE_138_22832_SYCAMORE_230_XF_1, and re-dispatch of resources.

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 May 3 HE 17, 18	Congestion 22886_SUNCREST_230_92860_SUNC TP1_230_BR_1_1 and changes in renewable forecast.
FMM May 8 HE 19	Load changes and changes in renewable forecast.

Table 1 RTD Intervals	
Trade Date	Root Cause
RTD May 2 HE 8, 10	Congestion on OMS 5717006_50001_OOS_NG and re-dispatch of resources.
RTD May 3 HE 19; May 4 HE 19; May 5 HE 17; May 8 HE 18; May 10 HE 18; May 11 HE 20, 21	Load changes and renewable deviation.
RTD May 5 HE 18	Load changes and congestion on 6410_CP5_NG.
RTD May 6 HE 16, 18	Load changes, renewable deviation, and congestion on 6410_CP5_NG.
RTD May 8 HE 9	Congestion on OMS 5823292 MG_BK81.
RTD May 9 HE 19	Renewable deviation and reduction of net imports.
RTD May 11 HE 12	Congestion on 24016_BARRE_230_24154_VILLA PK_230_BR_1_1.
RTD May 13 HE 21	Re-dispatch of resources.

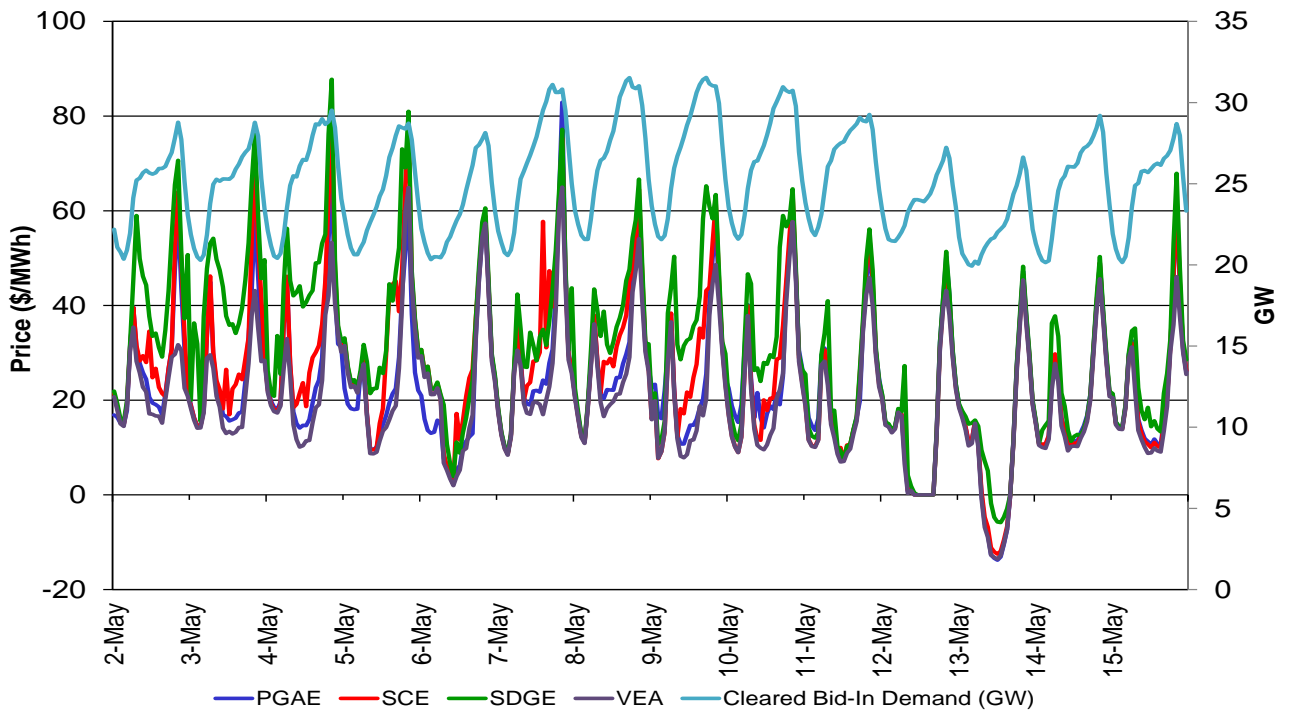
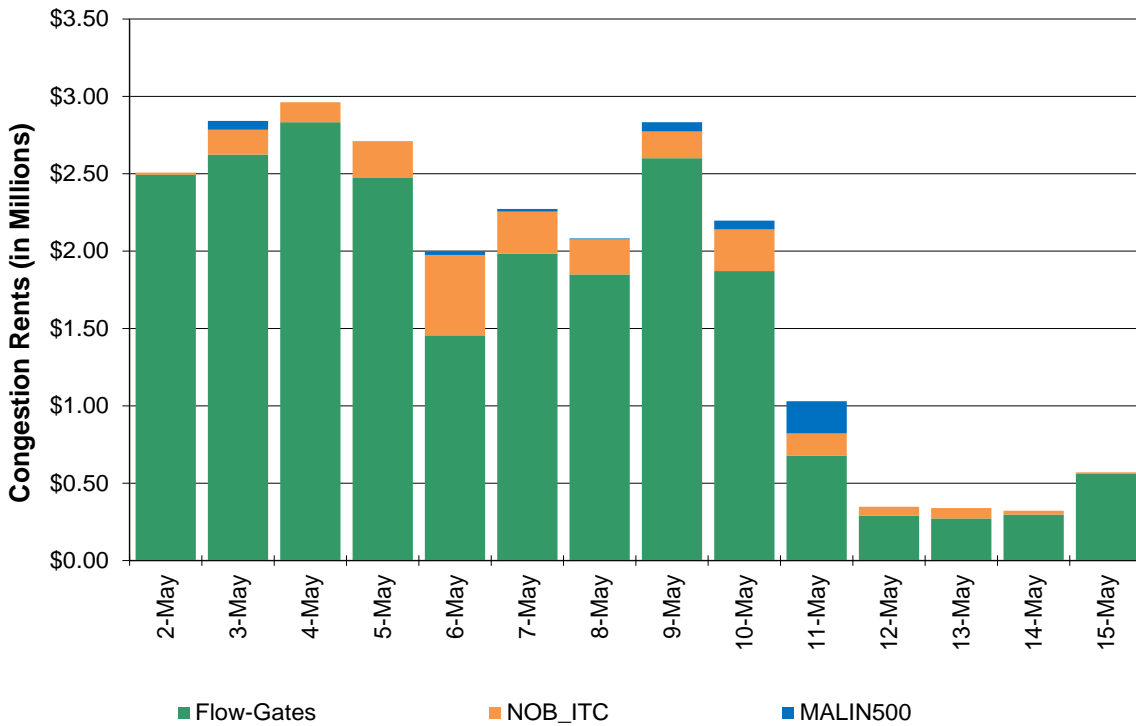
Figure 1: Day-Ahead (IFM) LAP LMP and Cleared Bid-In Demand


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	\$ 6,398,343.02
30055_GATES1_500_30900_GATES_230_XF_11_S	\$ 3,563,398.58
24086_LUGO_500_26105_VICTORVL_500_BR_1_1	\$ 2,813,530.03
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	\$ 1,575,845.70
OMS 5717006_50001_OOS_NG	\$ 1,094,093.81
30523_CC SUB_230_30525_C.COSTA_230_BR_1_1	\$ 765,630.76
7820_TL_230S_OVERLOAD_NG	\$ 635,721.32
24091_MESA CAL_230_24126_RIOHONDO_230_BR_1_1	\$ 505,950.18
6410_CP5_NG	\$ 451,447.82
22831_SYCAMORE_138_22832_SYCAMORE_230_XF_1	\$ 414,270.63
22820_SWEETWTR_69.0_22476_MIGUELTP_69.0_BR_1_1	\$ 394,772.74
33020_MORAGA_115_30550_MORAGA_230_XF_2_P	\$ 379,878.01
34548_KETTLEMN_70.0_34552_GATES_70.0_BR_1_1	\$ 362,257.66
33020_MORAGA_115_30550_MORAGA_230_XF_3_P	\$ 336,811.61
31334_CLER LKE_60.0_31338_KONOCI6_60.0_BR_1_1	\$ 274,090.84
24016_BARRE_230_25201_LEWIS_230_BR_1_1	\$ 251,659.32
22886_SUNCREST_230_92860_SUNC TP1_230_BR_1_1	\$ 250,577.79
34112_EXCHEQUR_115_34116_LE GRAND_115_BR_1_1	\$ 216,094.46
33936_MELNS JB_115_33951_VLYHMTP1_115_BR_1_1	\$ 177,924.59

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

Transmission Constraint	Congestion Rent
OMS 5823292 MG_BK81_NG	\$ 161,876.38
30515_WARNERVL_230_30800_WILSON_230_BR_1_1	\$ 157,711.91
33020_MORAGA_115_30550_MORAGA_230_XF_1_P	\$ 139,446.62
OMS 5649479 50002_OOS_TDM	\$ 122,630.02
30500_BELLOTA_230_30515_WARNERVL_230_BR_1_1	\$ 110,293.52
34860_TAFT_70.0_34943_Q356TAP_70.0_BR_1_1	\$ 91,232.36
31214_GEYERS56_115_31220_EGLE_RCK_115_BR_1_1	\$ 88,138.49
34427_ATWELL_115_34701_SMYRNA_1_115_BR_1_1	\$ 52,696.83
32218_DRUM_115_32244_BRNSWKT2_115_BR_2_1	\$ 46,010.74
92321_SYCA_TP2_230_22832_SYCAMORE_230_BR_2_1	\$ 43,384.30
92320_SYCA_TP1_230_22832_SYCAMORE_230_BR_1_1	\$ 43,384.30
22480_MIRAMAR_69.0_22756_SCRIPPS_69.0_BR_1_1	\$ 41,142.54
34116_LE_GRAND_115_34134_WILSONAB_115_BR_1_1	\$ 38,537.90
34469_GFFNJCT_70.0_34470_GIFFEN_70.0_BR_1_1	\$ 30,762.54
34418_KINGSBRG_115_34405_FRWT_TAP_115_BR_1_1	\$ 27,985.84
24036_EAGLROCK_230_24059_GOULD_230_BR_1_1	\$ 26,967.72
34552_GATES_70.0_39003_Q633SS_70.0_BR_1_1	\$ 20,831.40
34540_HENRITTA_70.0_30881_HENRIETA_230_XF_4	\$ 16,112.66
31990_DAVIS_115_31962_WDLND_BM_115_BR_1_1	\$ 15,101.56
38000_LODI_230_30622_EIGHT_MI_230_BR_1_1	\$ 13,995.26
33045_FIBRJCT1_115_33049_RIVERVIEW_115_BR_1_1	\$ 12,336.38
31555_MSS_TAP2_60.0_31553_BIG_BAR_60.0_BR_1_1	\$ 11,759.73
36851_NORTHERN_115_36852_SCOTT_115_BR_2_1	\$ 11,363.05
33932_MELONES_115_33500_MELNS_JA_115_BR_1_1	\$ 10,796.40
22604_OTAY_69.0_22616_OTAYLKTP_69.0_BR_1_1	\$ 10,473.07
31218_ER_FTNJT_115_31220_EGLE_RCK_115_BR_1_1	\$ 10,317.89
7820_TL23040_IV_SPS_NG	\$ 9,015.63
34887_TAP_SKRN_70.0_34882_SAN_EMDO_70.0_BR_1_1	\$ 7,355.62
99254_J.HINDS2_230_24806_MIRAGE_230_BR_1_1	\$ 4,924.42
33932_MELONES_115_33936_MELNS_JB_115_BR_1_1	\$ 4,417.28
31566_KESWICK_60.0_31582_STLLWATR_60.0_BR_1_1	\$ 4,333.81
34460_GUERNSEY_70.0_34462_GUR3TPT_70.0_BR_1_1	\$ 4,186.39
31335_GRANITE_60.0_31336_HPLND_JT_60.0_BR_1_1	\$ 3,720.87
33914_MI-WUK_115_33917_FBERBORD_115_BR_1_1	\$ 3,222.58
34859_PRMTFMTP_70.0_34873_Q484TP_70.0_BR_1_1	\$ 2,921.05
31092_MPLE_CRK_60.0_31093_HYPOMJT_60.0_BR_1_1	\$ 2,671.46
31338_KONOCI6_60.0_31344_EGLE_RCK_60.0_BR_1_1	\$ 1,947.48
31466_JESSUP_115_31469_SPI_AND_115_BR_1_1	\$ 1,690.65
22500_MISSION_138_22120_CARLTNHS_138_BR_1_1	\$ 1,643.76
32218_DRUM_115_32220_DTCH_FL1_115_BR_1_1	\$ 1,365.44
32225_BRNSWKT1_115_32222_DTCH2TAP_115_BR_1_1	\$ 1,223.25

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

Transmission Constraint	Congestion Rent
33916_CURTISS_115_33917_FBERBORD_115_BR_1_1	\$ 945.12
31576_WNTU PMS_60.0_31578_LOMS JCT_60.0_BR_1_1	\$ 818.62
34758_LAMONT_115_34805_ARVINJ1_115_BR_1_1	\$ 685.40
22200_DUNHILTP_69.0_22196_DUNHILL_69.0_BR_1_1	\$ 626.93
34582_ARCO_70.0_34241_TWSL J1_70.0_BR_1_1	\$ 610.42
34474_HELM_70.0_34556_STRD JCT_70.0_BR_1_1	\$ 342.20
31512_BIG BEN2_115_31516_WYANDJT2_115_BR_1_2	\$ 147.68
33020_MORAGA_115_32780_CLARMNT_115_BR_1_1	\$ 113.13
31104_CARLOTTA_60.0_31105_RIODLLTP_60.0_BR_1_1	\$ 67.14
31727_ELKCRKJT_60.0_31726_ELKCREEK_60.0_BR_1_1	\$ 35.52
Totals	\$ 22,276,620.15

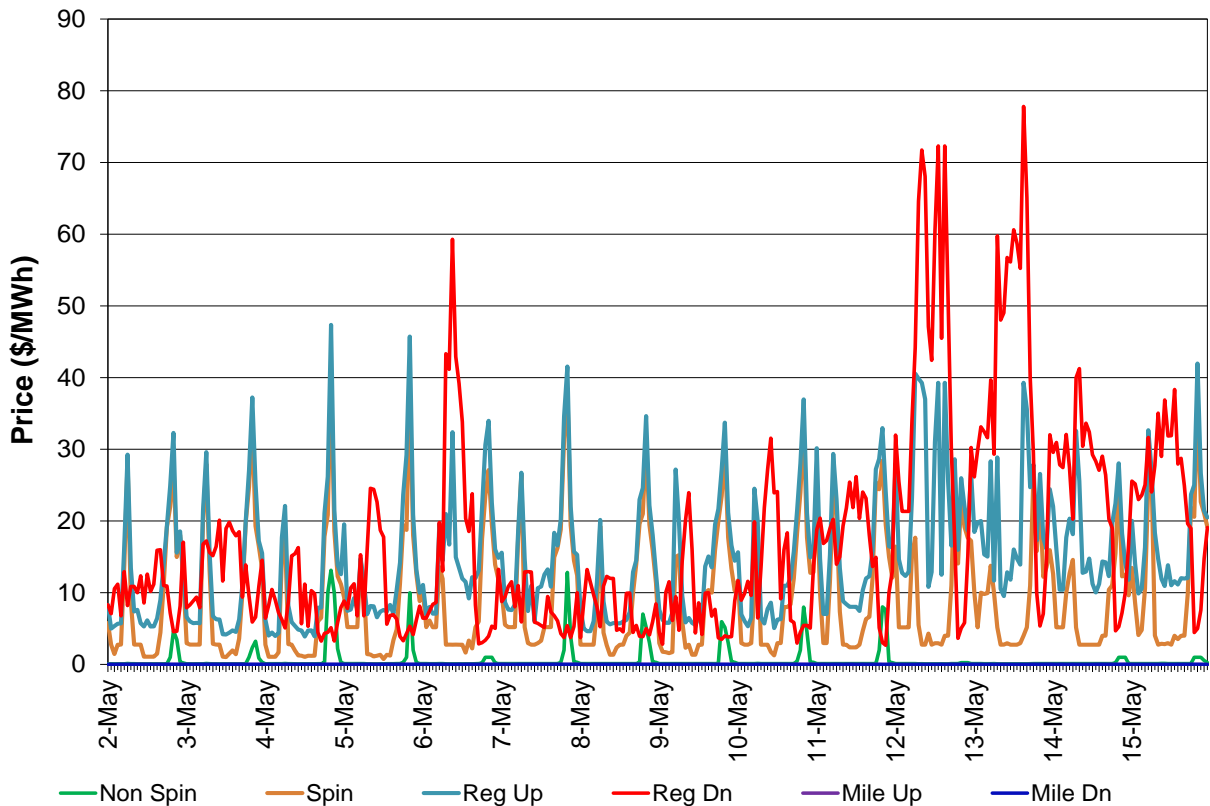
Figure 4: Day-Ahead (IFM) Average A/S Price




Figure 5: Day-Ahead Average RUC Price

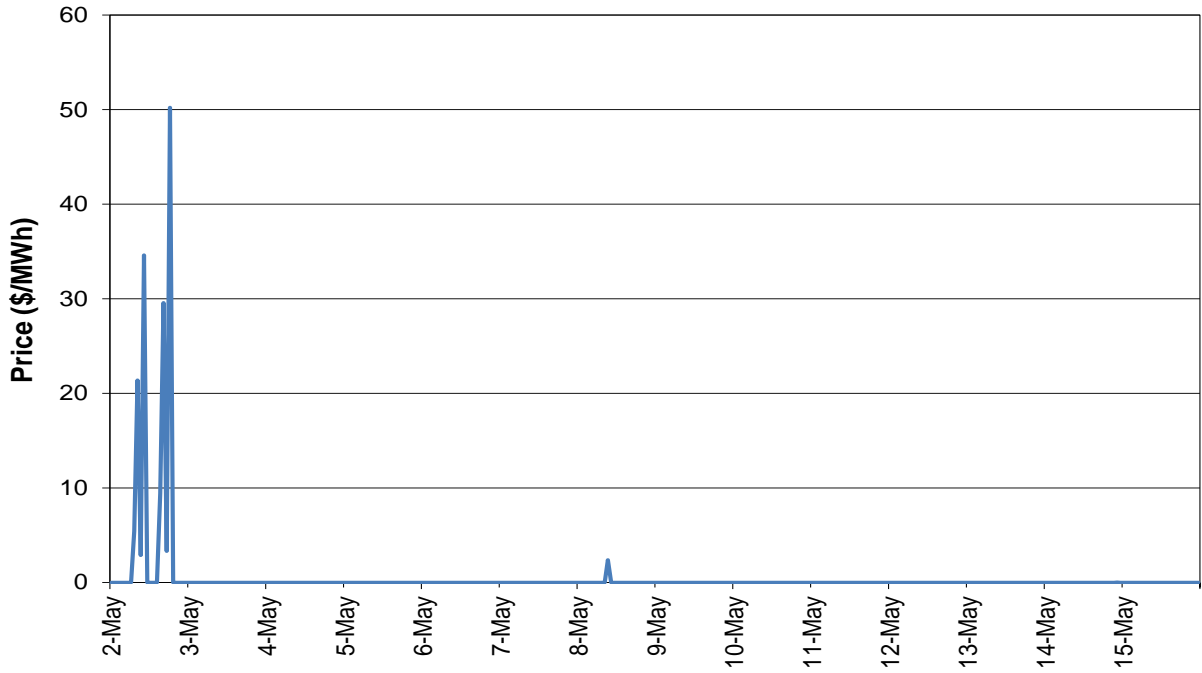


Figure 6: Real-Time FMM Average A/S Price

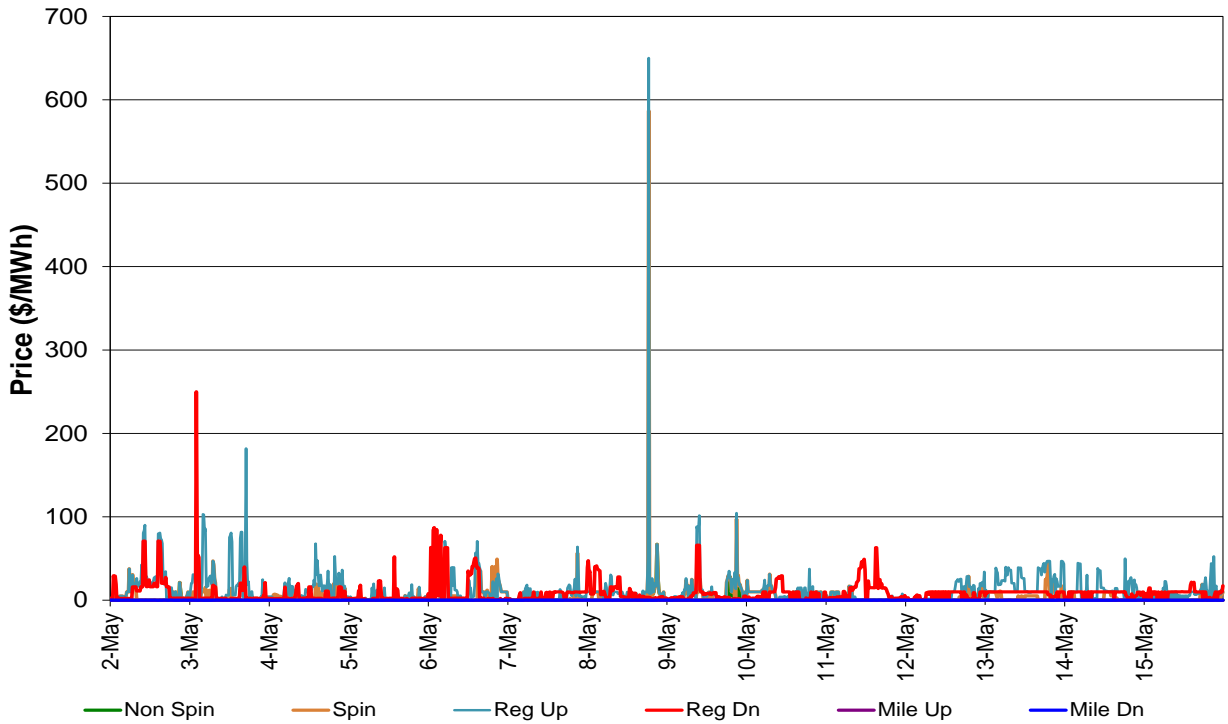


Figure 7: Real-Time FMM DLAP LMP

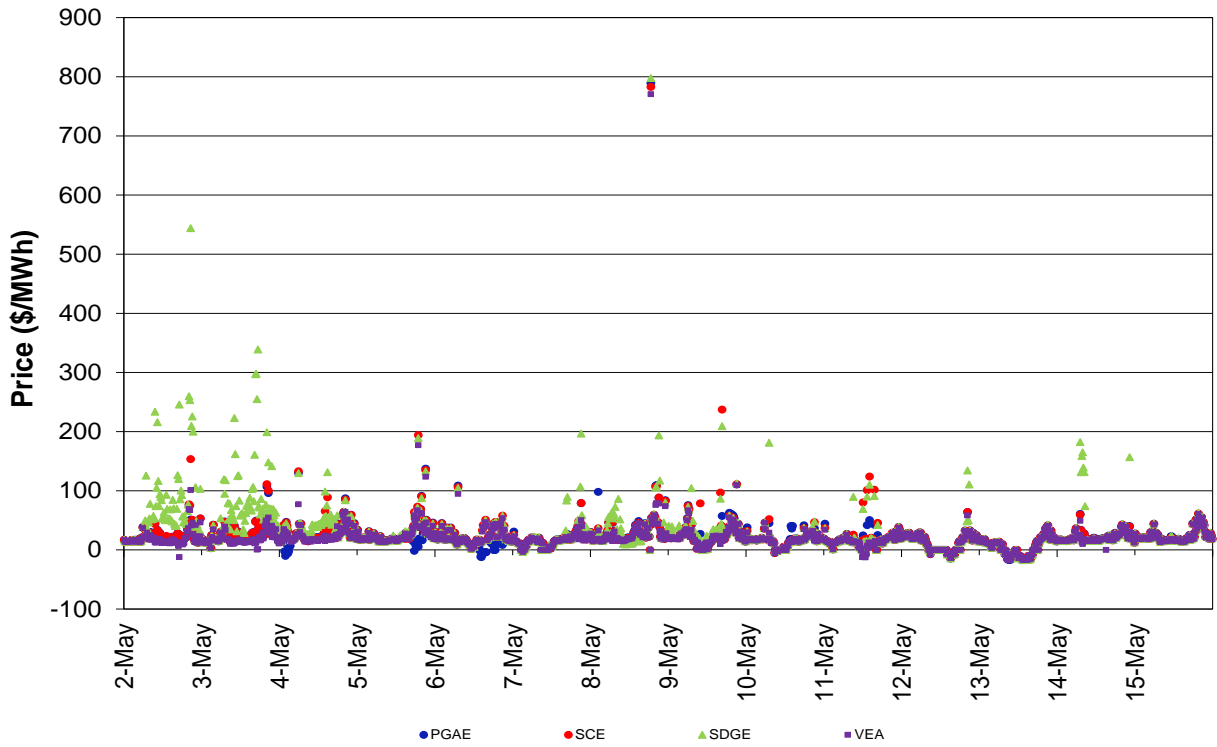


Figure 8: Real-Time RTD DLAP LMP

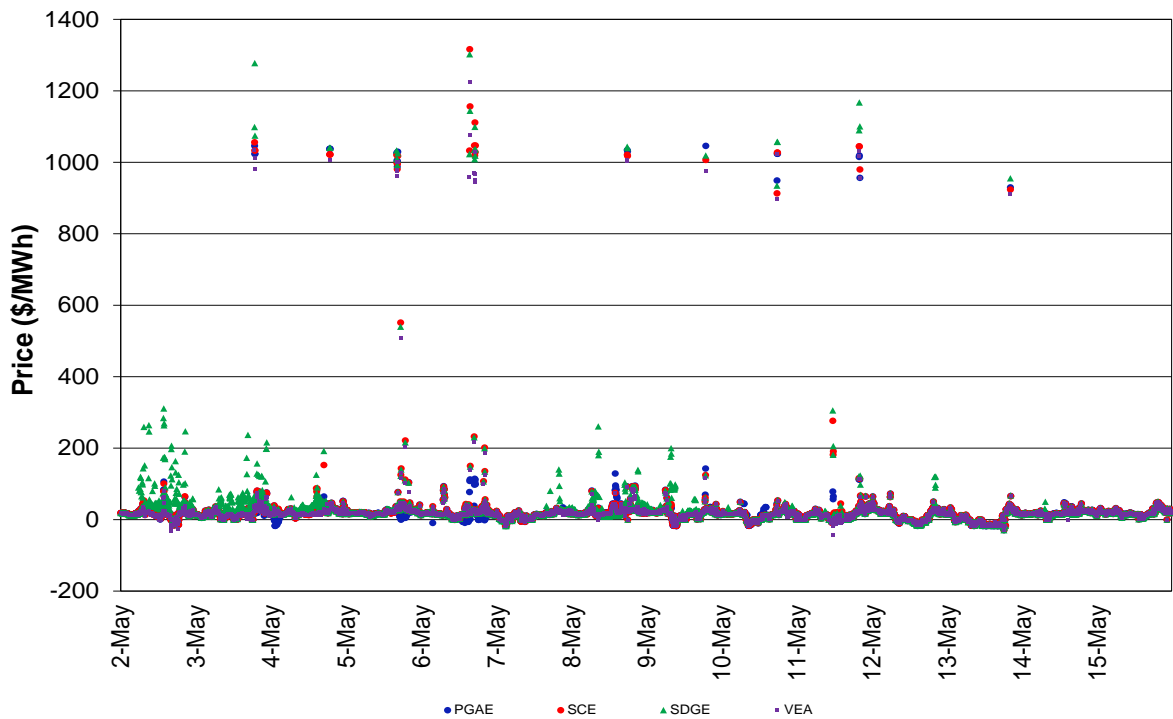


Figure 9: Real-Time FMM ELAP LMP

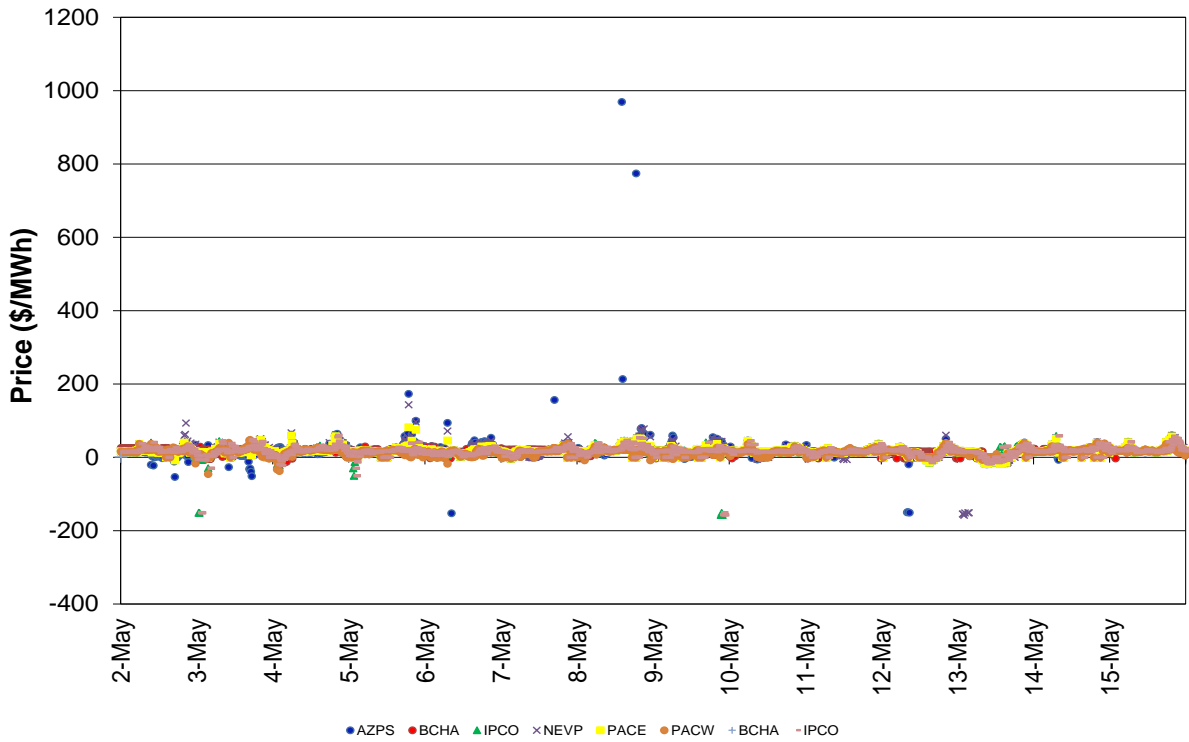


Figure 10: Real-Time RTD ELAP LMP

