



Market Highlights¹ (May 16–May 29)

- The average DLAP price in the integrated forward market was \$20.80. The maximum and minimum DLAP prices were \$67.60 and -\$5.38, respectively. The maximum and minimum PNode prices in the integrated forward market were \$801.94 and -\$456.07 respectively.
- The top two interties congested in the integrated forward market were NOB_ITC and MALIN500. Congestion rents in these two weeks totaled \$13,306,307.59.
- The average day-ahead ancillary service prices were between \$0.00 and \$71.22.
- Approximately 97.50 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$19.86, with a maximum price of \$374.74 and a minimum price of -\$17.36. The maximum and minimum PNode prices in the FMM were \$1,455.15 and -\$1,107.83, respectively.
- Out of the total 1,344 FMM intervals, 4 intervals saw DLAP prices above \$250, and 0 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 4 intervals saw ELAP prices above \$250 And 15 intervals saw ELAP prices below -\$150.
- The average real-time FMM ELAP price was \$15.06, with a maximum price of \$980.66 and a minimum price of -\$167.00.
- The average real-time RTD DLAP price was \$20.57, with a maximum price of \$1,055.90 and a minimum price of -\$22.42. The maximum and minimum PNode prices in the RTD were \$1,539.36 and -\$1,154.39, respectively.
- Out of the total 4,032 RTD intervals, 23 intervals saw DLAP prices above \$250 and 0 interval saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 43 intervals saw ELAP prices above \$250 and 38 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$15.27, with a maximum price of \$1,023.40 and a minimum price of -\$228.72.
- 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 23 HE 10, 11, 12	Congestion on OMS 5820664 MG_BK80_NG.
FMM May 29 HE 16	Load changes and changes in renewable forecast.

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 May 18 HE 19; May 20 HE 18	Load changes.
RTD May 23 HE 10	Congestion on OMS 5820664 MG_BK80_NG.
RTD May 25 HE 22; May 28 HE 19, HE 20	Congestion on RM_TM12_NG.
RTD May 27 HE 20	Re-dispatch of resources.
RTD May 28 HE 2	Renewable deviation.

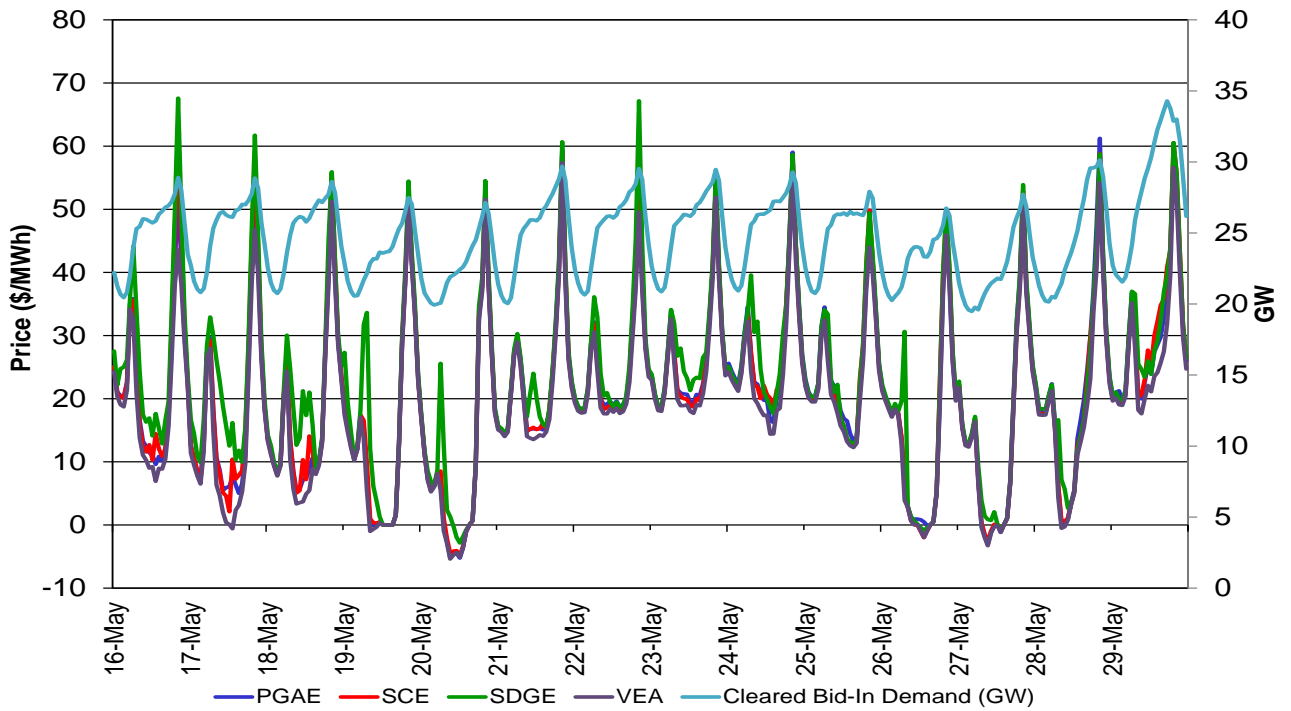
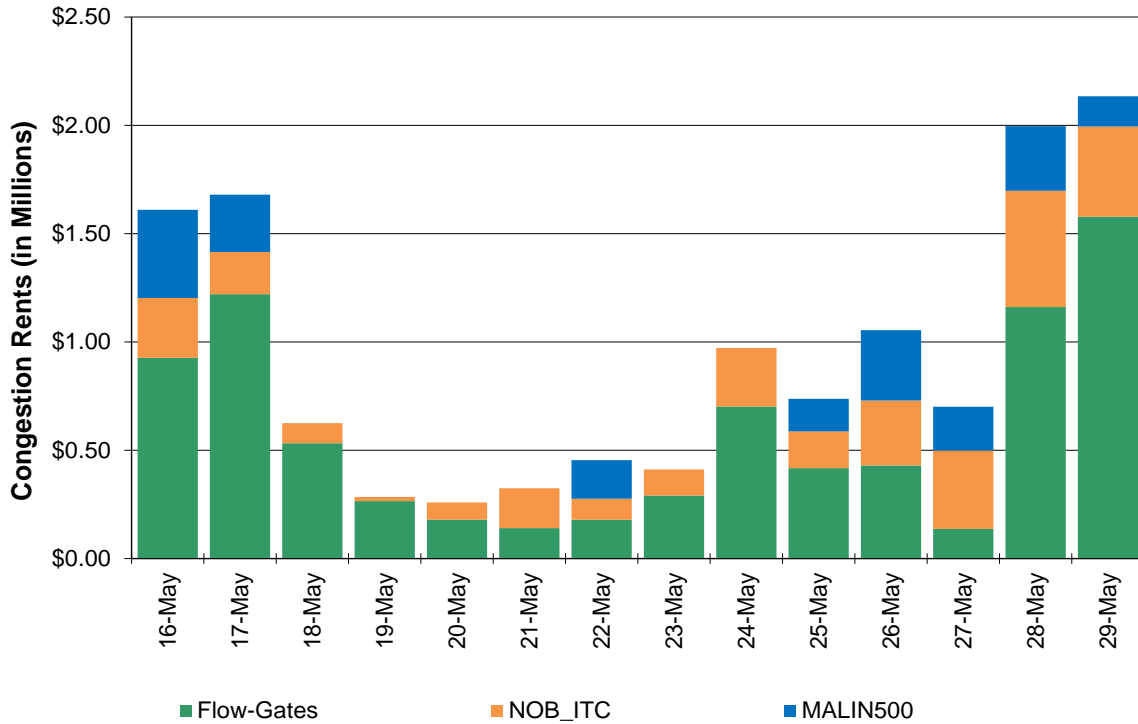
Figure 1: Day-Ahead (IFM) LAP LMP and Cleared Bid-In Demand


Figure 2: Day-Ahead Congestion Rents

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

Transmission Constraint	Congestion Rent
24036_EAGLROCK_230_24059_GOULD_230_BR_1_1	\$ 2,200,396.76
7820_TL_230S_OVERLOAD_NG	\$ 712,897.21
RM_TM12_NG	\$ 666,495.31
24016_BARRE_230_24154_VILLA_PK_230_BR_1_1	\$ 561,677.06
7820_TL23040_IV_SPS_NG	\$ 528,232.94
OMS_5649479_50002_OOS_TDM	\$ 483,457.70
35612_TRIMBLE_115_35616_SNJOSB_115_BR_1_1	\$ 345,443.17
33315_RAVENSWD_115_33316_CLYLDG_115_BR_1_1	\$ 291,530.20
30500_BELLOTA_230_30515_WARNERVL_230_BR_1_1	\$ 237,489.08
34548_KETTLEMN_70.0_34552_GATES_70.0_BR_1_1	\$ 230,852.78
7750_D-ECASCO_OOS_CP6_NG	\$ 208,782.79
31334_CLER_LKE_60.0_31338_KONOCT16_60.0_BR_1_1	\$ 201,443.98
22824_SWTWTRTP_69.0_22820_SWEETWTR_69.0_BR_1_1	\$ 192,947.84
33020_MORAGA_115_32780_CLARMNT_115_BR_1_1	\$ 167,614.34
30050_LOSBANOS_500_30055_GATES1_500_BR_1_1	\$ 125,706.32
24086_LUGO_500_26105_VICTORVL_500_BR_1_1	\$ 106,794.49
25001_GOODRICH_230_24076_LAGUBELL_230_BR_1_1	\$ 76,322.45
30523_CC_SUB_230_30525_C.COSTA_230_BR_1_1	\$ 72,278.11
32218_DRUM_115_32244_BRNSWKT2_115_BR_2_1	\$ 71,673.07

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

Transmission Constraint	Congestion Rent
31566_KESWICK_60.0_31582_STLLWATR_60.0_BR_1_1	\$ 56,732.56
33360_HILLSBLE_60.0_33361_HLLSDLJT_60.0_BR_1_1	\$ 56,719.86
34112_EXCHEQUR_115_34116_LE GRAND_115_BR_1_1	\$ 55,684.81
34116_LE GRAND_115_34134_WILSONAB_115_BR_1_1	\$ 47,434.99
33378_WTRSHTPA_60.0_33380_JEFFERSN_60.0_BR_1_1	\$ 42,699.86
24016_BARRE_230_25201_LEWIS_230_BR_1_1	\$ 39,013.52
32056_CORTINA_60.0_30451_CRTNA M_1.0_XF_1	\$ 32,032.26
31968_WODLNDJ2_115_31973_ZMORA J2_115_BR_2_1	\$ 29,713.14
7750_D-ECASCO_OOS_CP5_NG	\$ 27,362.48
33020_MORAGA_115_33010_SOBRANTE_115_BR_1_1	\$ 26,903.70
35618_SNJSE A_115_35616_SNJOSEB_115_BR_1_1	\$ 25,379.45
38206_COTTLE A_230_37563_MELONES_230_BR_1_1	\$ 22,955.47
34469_GFFNJCT_70.0_34470_GIFFEN_70.0_BR_1_1	\$ 22,616.64
32479_BOWMNTAP_60.0_32372_SPAULDNG_60.0_BR_1_1	\$ 19,756.08
32225_BRNSWKT1_115_32222_DTCH2TAP_115_BR_1_1	\$ 16,460.29
31501_CHICOTP1_115_31504_TBLE MTN_115_BR_1_1	\$ 15,433.36
30056_GATES2_500_30060_MIDWAY_500_BR_2_3	\$ 13,411.61
30515_WARNERVL_230_30800_WILSON_230_BR_1_1	\$ 11,615.46
31214_GEYERS56_115_31220_EGLE RCK_115_BR_1_1	\$ 10,763.60
34427_ATWELL_115_34701_SMYRNA 1_115_BR_1_1	\$ 10,389.82
32212_E.NICOLS_115_32214_RIO OSO_115_BR_1_1	\$ 9,998.35
OMS 5820664 MG_BK80_NG	\$ 9,395.00
32218_DRUM_115_32219_DR360370_115_BR_1_1	\$ 8,915.13
31604_COTTONWD_60.0_31611_RAWSON_60.0_BR_2_1	\$ 8,474.15
34887_TAP SKRN_70.0_34882_SAN EMDO_70.0_BR_1_1	\$ 7,259.32
30055_GATES1_500_30900_GATES_230_XF_11_S	\$ 7,109.54
34552_GATES_70.0_39003_Q633SS_70.0_BR_1_1	\$ 6,361.66
31555_MSS TAP2_60.0_31553_BIG BAR_60.0_BR_1_1	\$ 5,293.69
31336_HPLND JT_60.0_31206_HPLND JT_115_XF_2	\$ 3,977.77
31218_ER_FTNJT_115_31220_EGLE RCK_115_BR_1_1	\$ 3,904.69
30055_GATES1_500_30060_MIDWAY_500_BR_1_3	\$ 3,868.76
HUMBOLDT_IMP_NG	\$ 3,759.12
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	\$ 3,450.85
30805_BORDEN_230_30810_GREGG_230_BR_1_1	\$ 2,719.49
35349_AMES DST_115_35122_NWARK EF_115_BR_1_1	\$ 1,619.14
34418_KINGSBRG_115_34405_FRWT TAP_115_BR_1_1	\$ 1,138.19
33045_FIBRJCT1_115_33049_RIVERVEW_115_BR_1_1	\$ 1,109.16
31110_BRDGVLE_60.0_31112_FRUITLND_60.0_BR_1_1	\$ 897.76
BLYTHE_BG	\$ 867.37
32314_SMRTSVLE_60.0_32349_BEALE2J1_60.0_BR_1_1	\$ 795.28
31593_COWCREEK_60.0_31597_DESCHTP1_60.0_BR_1_1	\$ 467.05
34860_TAFT_70.0_34943_Q356TAP_70.0_BR_1_1	\$ 361.66
31597_DESCHTP1_60.0_31592_DESCHUTS_60.0_BR_1_1	\$ 35.83
Totals	\$ 22,276,620.15



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

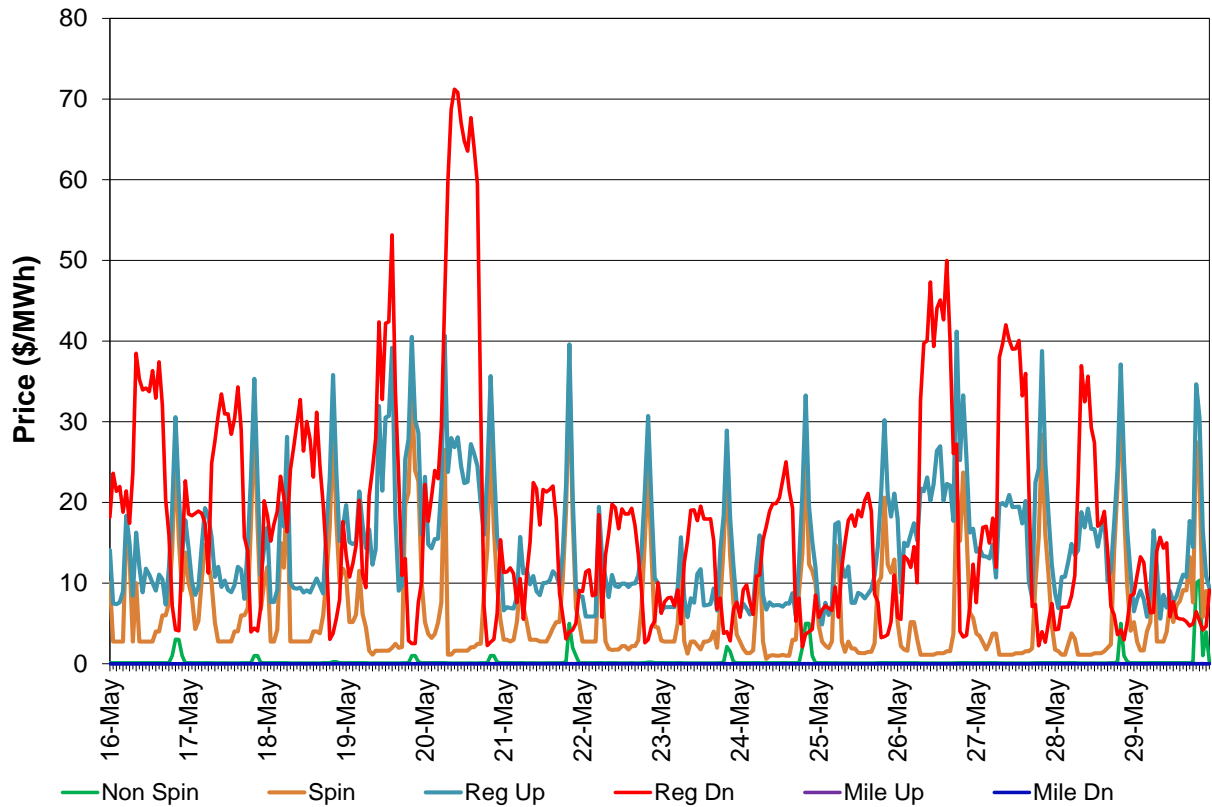


Figure 5: Day-Ahead Average RUC Price

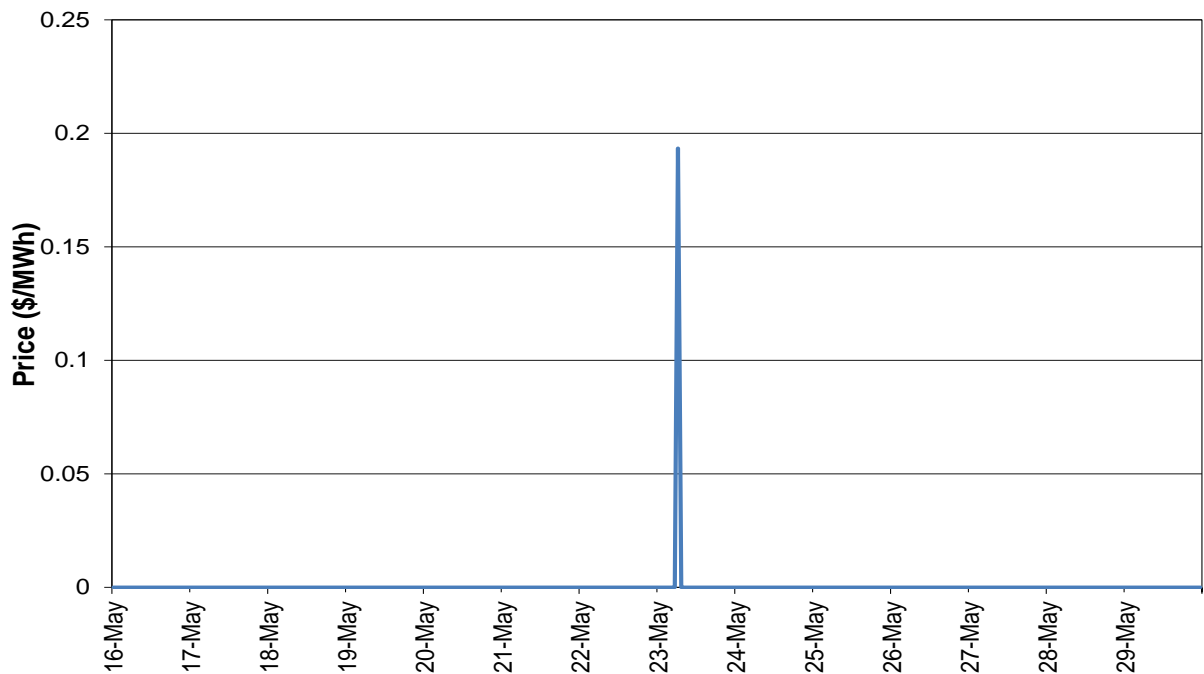




Figure 6: Real-Time FMM Average A/S Price

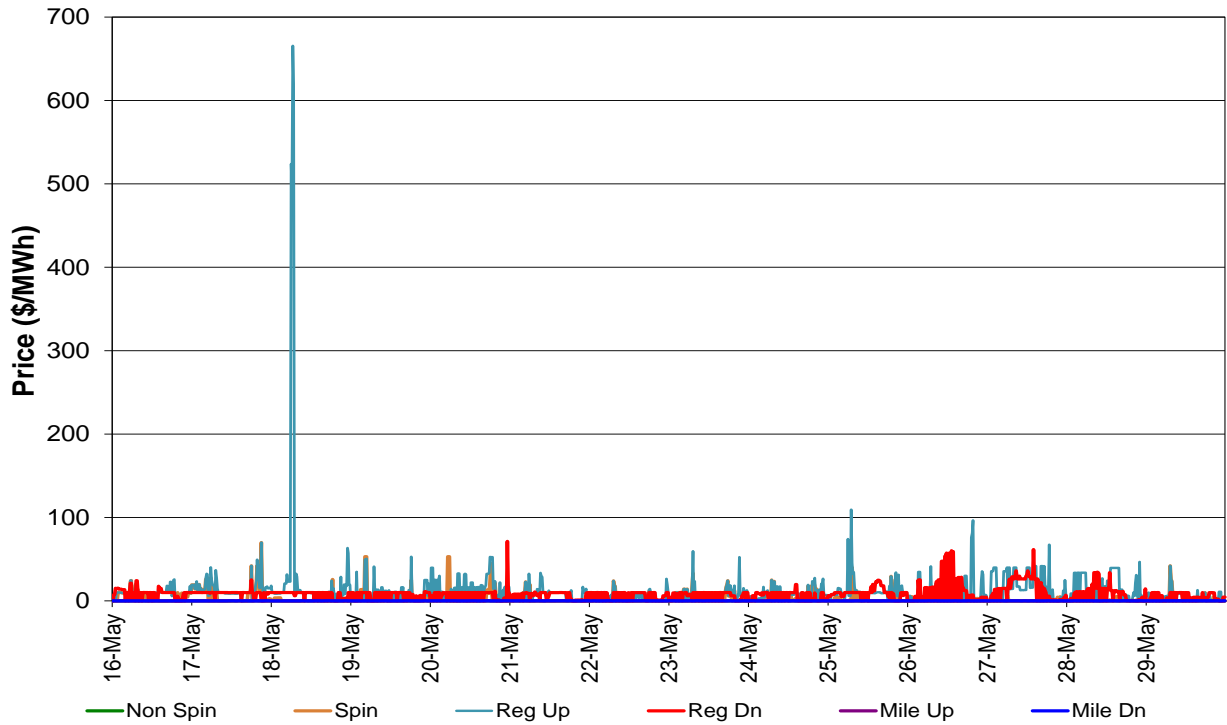


Figure 7: Real-Time FMM DLAP LMP

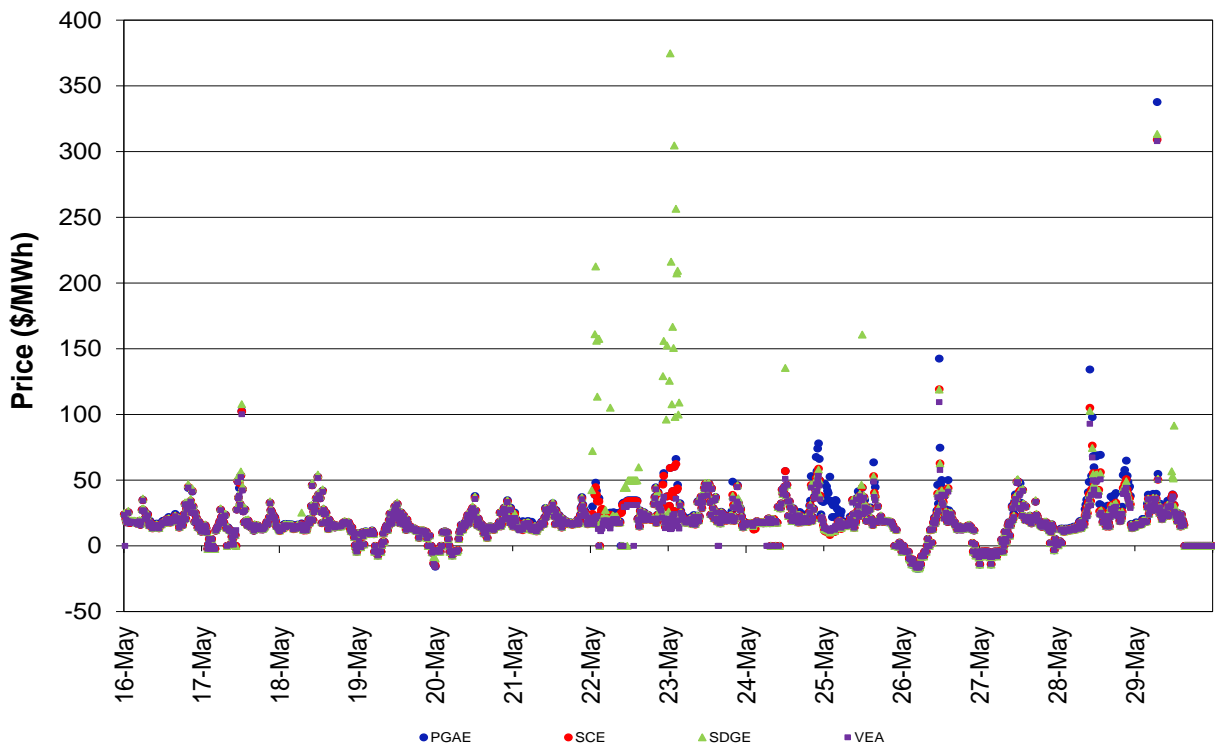


Figure 8: Real-Time RTD DLAP LMP

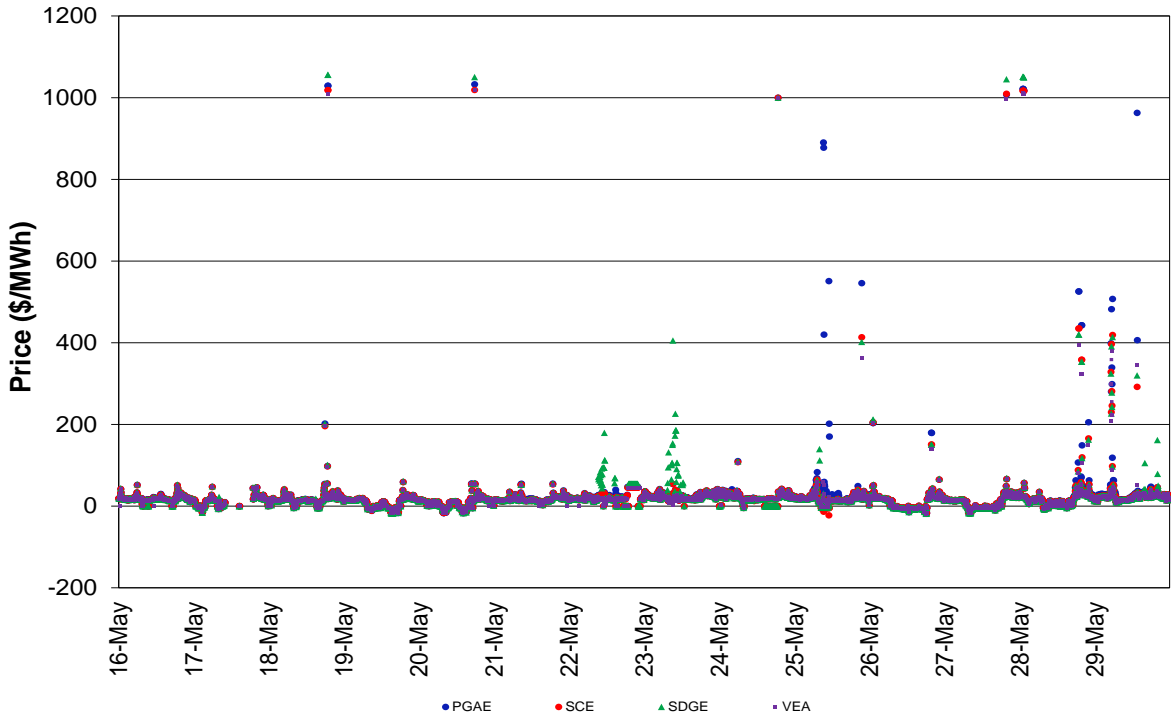


Figure 9: Real-Time FMM ELAP LMP

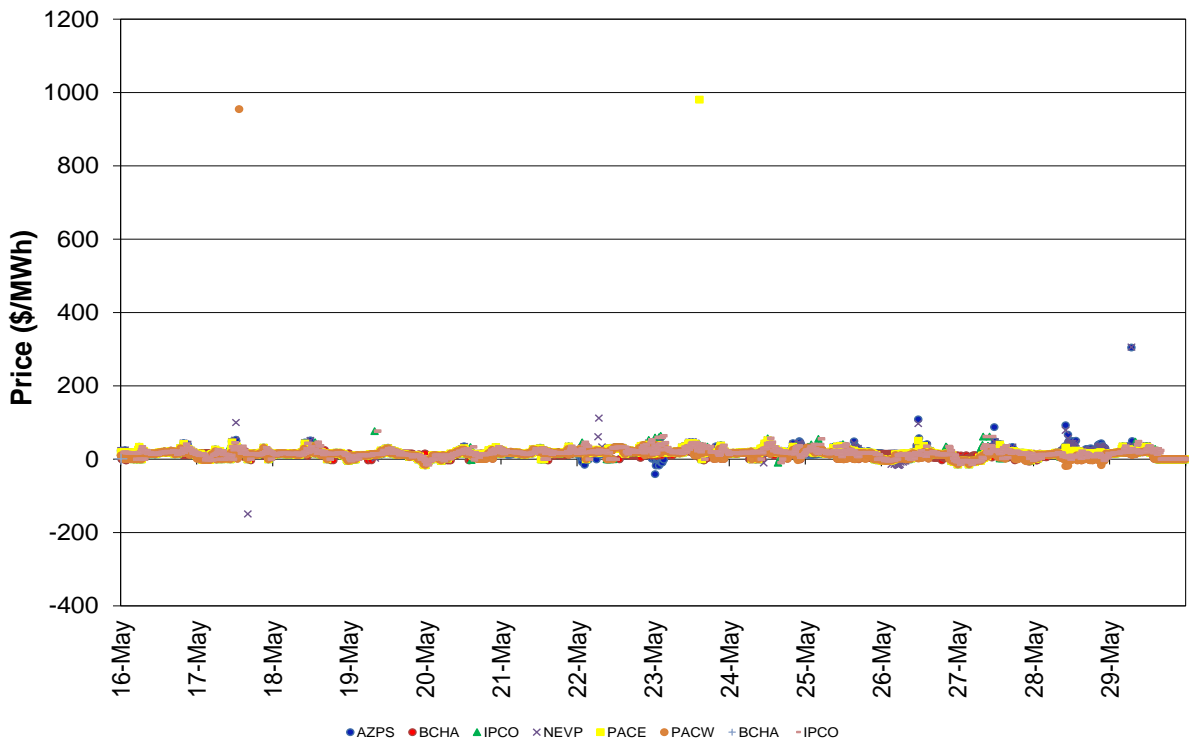




Figure 10: Real-Time RTD ELAP LMP

