

Market Highlights¹ (May 17–May 30)

- The average DLAP price in the integrated forward market was \$29.34. The maximum and minimum DLAP prices were \$159.92 and \$0.95, respectively. The maximum and minimum PNode prices in the integrated forward market were \$1,030.14 and -\$424.88 respectively.
- The top two interties congested in the integrated forward market were MALIN500 and NOB_ITC. Congestion rents in these two weeks totaled \$17,626,271.
- The average day-ahead ancillary service prices were between \$0.00 and \$94.95.
- Approximately 79.79 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$25.67, with a maximum price of \$314.15 and a minimum price of -\$29.68. The maximum and minimum PNode prices in the FMM were \$1,219.92 and -\$1,146.65, respectively.
- Out of the total 1,344 FMM intervals, 2 intervals saw DLAP prices above \$250, and 0 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 13 intervals saw ELAP prices above \$250 and 38 intervals saw ELAP prices below -\$150. The average real-time FMM ELAP price was \$19.24, with a maximum price of \$1,005.49 and a minimum price of -\$155.84.
- The average real-time RTD DLAP price was \$26.34, with a maximum price of \$1,168.10 and a minimum price of -\$37.50. The maximum and minimum PNode prices in the RTD were \$1,733.41 and -\$995.13, respectively.
- Out of the total 4,032 RTD intervals, 34 intervals saw DLAP prices above \$250 and 0 intervals saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 76 intervals saw ELAP prices above \$250 and 139 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$18.77, with a maximum price of \$1,168.16 and a minimum price of -\$280.78.
- Root cause for daily high price events are noted in Tables 1 and 2.

Table 1 FMM Intervals	
Trade Date	Root Cause
FMM May 20 HE 17	Congestion on 22886_SUNCREST_230_92860_SUNC TP1_230_BR_1_1
FMM May 21 HE 20	Load changes

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 May 17 HE 8	Load changes and re-dispatch of resources
RTD May 17 HE 19	Renewable deviation and load changes
RTD May 18 HE 6	Renewable deviation, load changes and re-dispatch of resources
RTD May 19 HE 14	Transmission line outage
RTD May 20 HE 16	Congestion on 22886_SUNCREST_230_92860_SUNC TP1_230_BR_1_1
RTD May 20 HE 20	Load changes, renewable deviation and generator outage
RTD May 21 HE 18	Load changes, re-dispatch of resources and renewable deviation
RTD May 24 HE 12, 13	Load changes and renewable deviation
RTD May 24 HE 14, 15, 19	Renewable deviation and re-dispatch of resources
RTD May 24 HE 18	Load changes

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

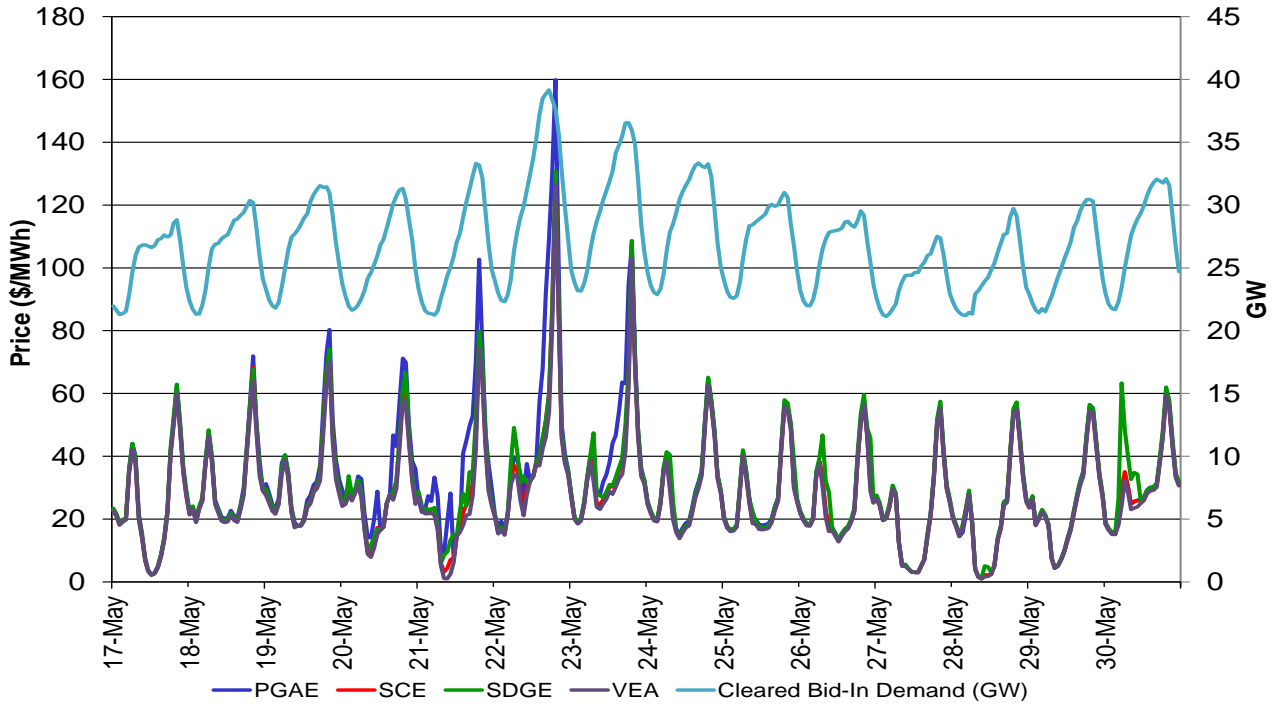
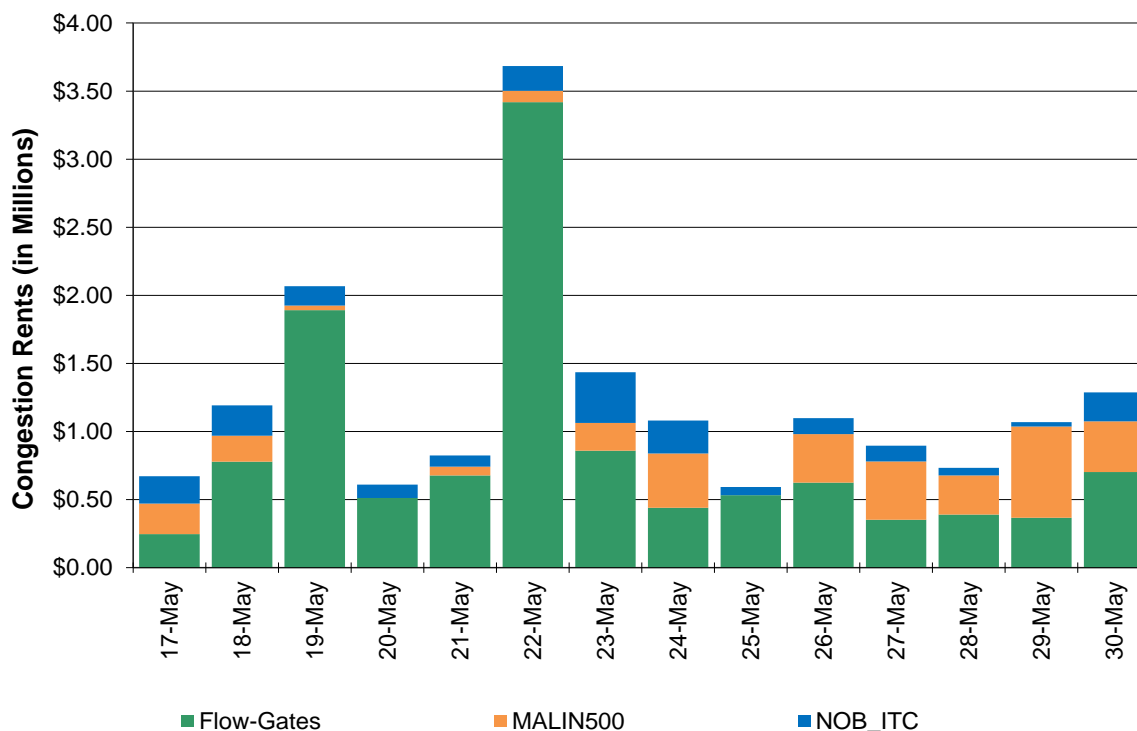


Figure 2: Day-Ahead Congestion Rents

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

Transmission Constraint	Congestion Rent
33315_RAVENSWD_115_33316_CLYLDG_115_BR_1_1	\$ 1,818,254.83
30005_ROUND MT_500_30015_TABLE MT_500_BR_1_2	\$ 1,671,515.54
30515_WARNERVL_230_30800_WILSON_230_BR_1_1	\$ 1,091,704.71
7820_TL_230S_OVERLOAD_NG	\$ 796,705.21
31378_FULTON_60.0_31382_FTCHMTNP_60.0_BR_1_1	\$ 714,666.24
33936_MELNS JB_115_33951_VLYHMTP1_115_BR_1_1	\$ 625,501.63
32212_E.NICOLS_115_32214_RIO OSO_115_BR_1_1	\$ 610,495.36
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	\$ 528,993.95
32766_EL CRRTO_115_33010_SOBRANTE_115_BR_2_1	\$ 461,604.34
34427_ATWELL_115_34701_SMYRNA 1_115_BR_1_1	\$ 378,889.35
31336_HPLND JT_60.0_31370_CLVRDLJT_60.0_BR_1_1	\$ 368,761.57
22480_MIRAMAR_69.0_22756_SCRIPPS_69.0_BR_1_1	\$ 333,885.63
31334_CLER LKE_60.0_31338_KONOCI6_60.0_BR_1_1	\$ 238,080.67
33020_MORAGA_115_32780_CLARMNT_115_BR_1_1	\$ 234,996.94
34112_EXCHEQUR_115_34116_LE GRAND_115_BR_1_1	\$ 223,724.56
32056_CORTINA_60.0_30451_CRTNA M_1.0_XF_1	\$ 190,581.99
6310_CP3_NG	\$ 176,484.50

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

Transmission Constraint	Congestion Rent
31220_EGLE RCK_115_31228_HOMSTKTP_115_BR_1_1	\$ 138,481.16
33932_MELONES_115_33936_MELNS JB_115_BR_1_1	\$ 131,517.00
34418_KINGSBRG_115_34405_FRWT TAP_115_BR_1_1	\$ 114,050.56
31336_HPLND JT_60.0_31206_HPLND JT_115_XF_2	\$ 106,820.32
30805_BORDEN_230_30810_GREGG_230_BR_1_1	\$ 92,070.07
32218_DRUM_115_32244_BRNSWKT2_115_BR_2_1	\$ 89,031.95
35648_LLAGAS_115_35650_GILROY F_115_BR_1_1	\$ 69,832.19
34548_KETTLEMN_70.0_34552_GATES_70.0_BR_1_1	\$ 56,647.12
32290_OLIVH J1_115_32288_E.MRY J1_115_BR_1_1	\$ 46,359.46
31566_KESWICK_60.0_31582_STLLWATR_60.0_BR_1_1	\$ 41,775.21
22884_WARNERS_69.0_22688_RINCON_69.0_BR_1_1	\$ 40,106.91
33541_AEC_TP1_115_33540_TESLA_115_BR_1_1	\$ 29,647.90
HUMBOLDT_IMP_NG	\$ 25,905.56
31990_DAVIS_115_31962_WDLND BM_115_BR_1_1	\$ 22,960.23
32200_PEASE_115_32288_E.MRY J1_115_BR_1_1	\$ 17,723.93
34807_ARVINJ2_115_34758_LAMONT_115_BR_1_1	\$ 16,439.15
34116_LE GRAND_115_34134_WILSONAB_115_BR_1_1	\$ 10,853.96
33511_AVENATP2_115_33514_MANTECA_115_BR_1_1	\$ 10,465.99
24016_BARRE_230_25201_LEWIS_230_BR_1_1	\$ 10,195.66
31114_FRT SWRD_60.0_31116_GRBRVLE_60.0_BR_1_1	\$ 9,819.12
32290_OLIVH J1_115_32214_RIO OSO_115_BR_1_1	\$ 9,743.71
38000_LODI_230_30622_EIGHT MI_230_BR_1_1	\$ 7,084.74
31556_TRINITY_60.0_31555_MSS TAP2_60.0_BR_1_1	\$ 6,013.41
22136_CLAIRMNT_69.0_22140_CLARMTTP_69.0_BR_1_1	\$ 5,815.20
33916_CURTISS_115_33917_FBERBORD_115_BR_1_1	\$ 5,341.85
31110_BRDGVLE_60.0_31112_FRUITLND_60.0_BR_1_1	\$ 4,067.17
22820_SWEETWTR_69.0_22476_MIGUELTP_69.0_BR_1_1	\$ 4,046.25
31092_MPLE CRK_60.0_31093_HYMPOMJT_60.0_BR_1_1	\$ 3,917.29
33951_VLYHMTP1_115_33516_RIPON J_115_BR_1_1	\$ 3,405.00
33932_MELONES_115_33500_MELNS JA_115_BR_1_1	\$ 2,858.73
33506_STANISLS_115_33503_FRGTNTP2_115_BR_1_1	\$ 2,410.53
31086_EUREKA_60.0_31090_HMBLT BY_60.0_BR_1_1	\$ 2,288.62
34887_TAP SKRN_70.0_34882_SAN EMDO_70.0_BR_1_1	\$ 1,887.80
31000_HUMBOLDT_115_31452_TRINITY_115_BR_1_1	\$ 927.74
33516_RIPON J_115_33514_MANTECA_115_BR_1_1	\$ 875.01
34107_CERTANTP_115_34101_CERTANJ2_115_BR_1_1	\$ 848.29
22256_ESCNDIDO_69.0_22724_SANMRCOS_69.0_BR_1_1	\$ 752.23
31580_CASCADE_60.0_31582_STLLWATR_60.0_BR_1_1	\$ 748.00
31108_SWNS FLT_60.0_31110_BRDGVLE_60.0_BR_1_1	\$ 281.00
Total	\$ 11,608,863.03



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

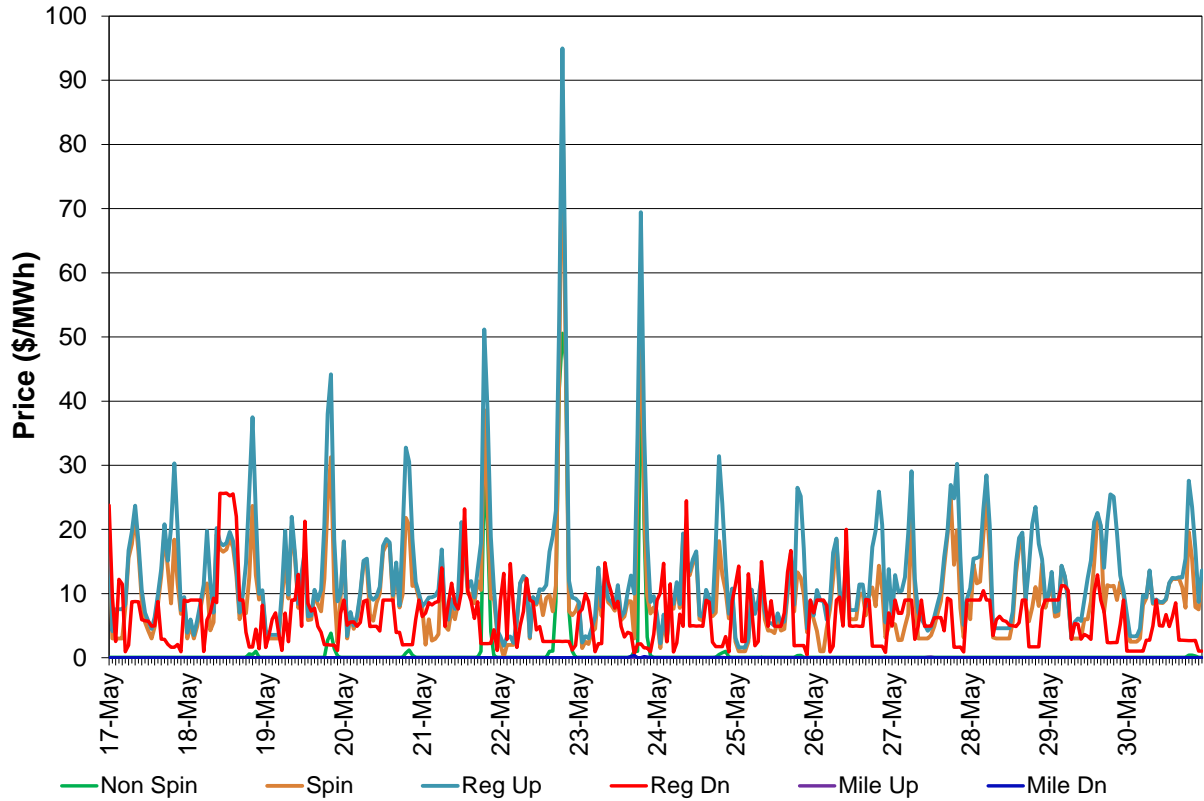


Figure 5: Day-Ahead Average RUC Price

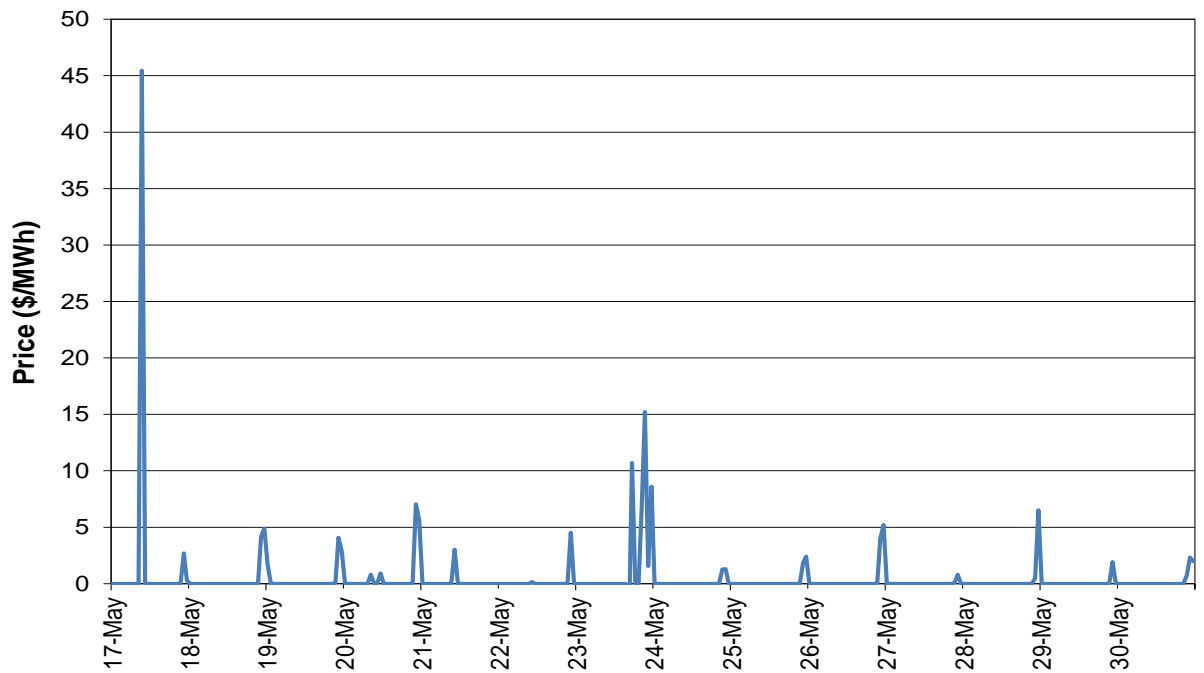




Figure 6: Real-Time FMM Average A/S Price

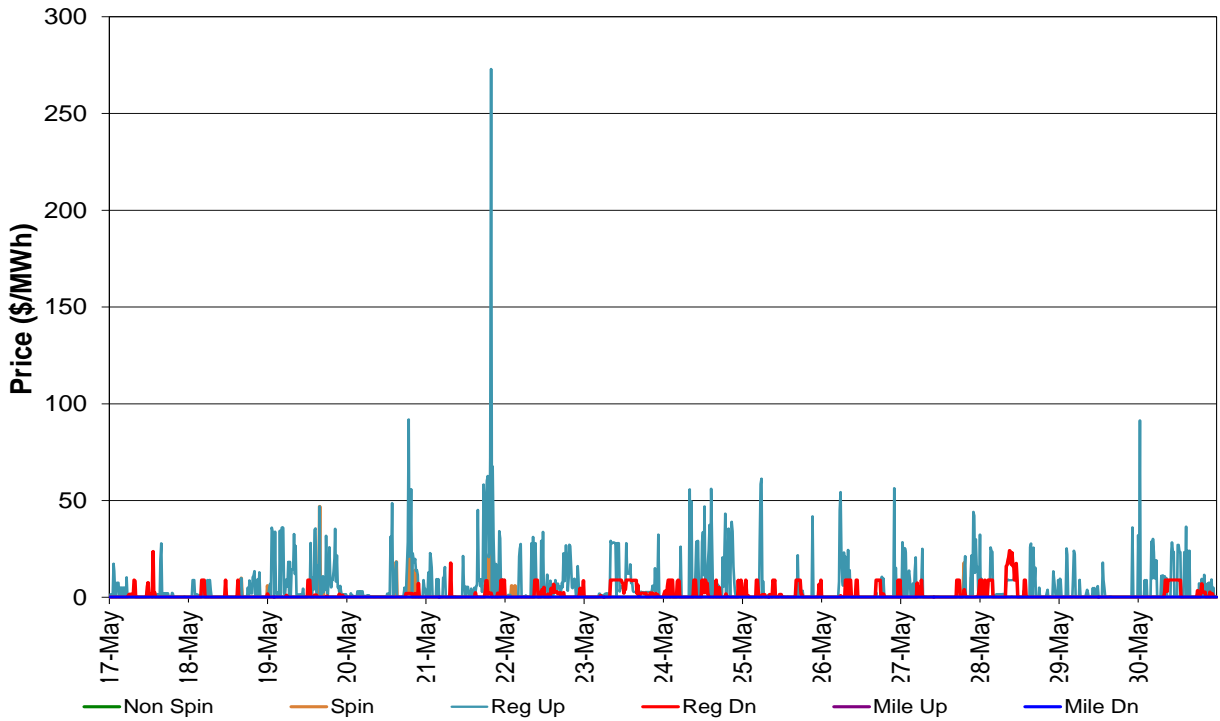


Figure 7: Real-Time FMM DLAP LMP

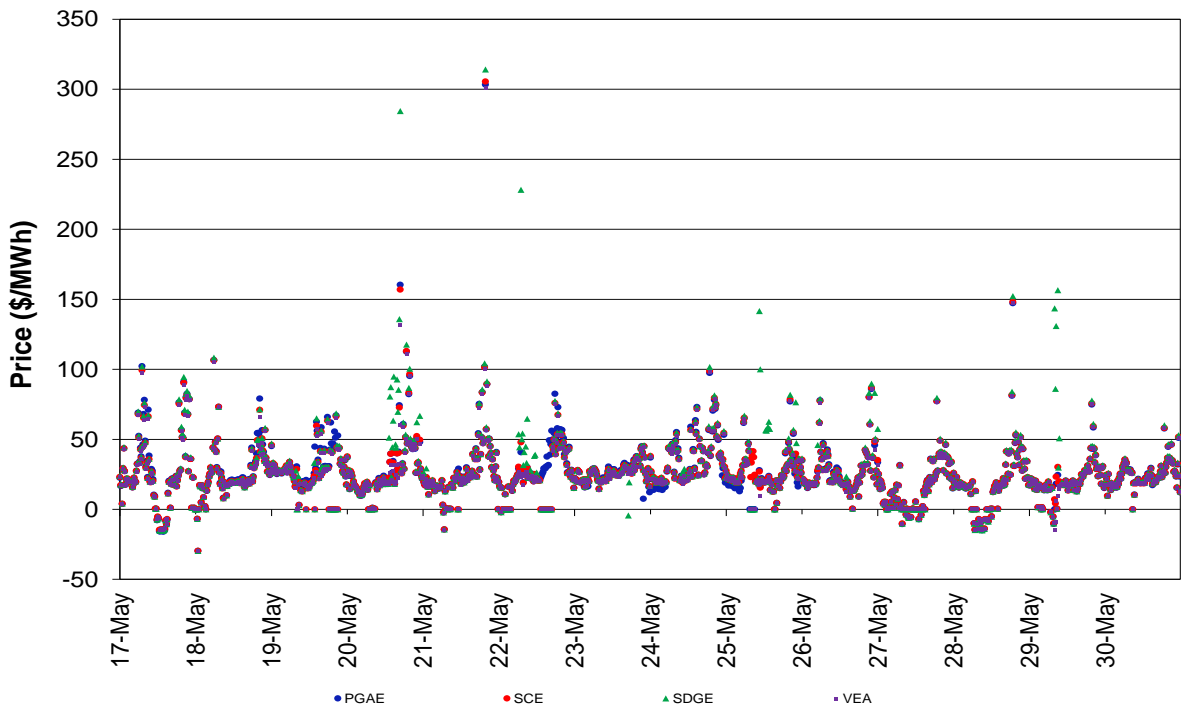


Figure 8: Real-Time RTD DLAP LMP

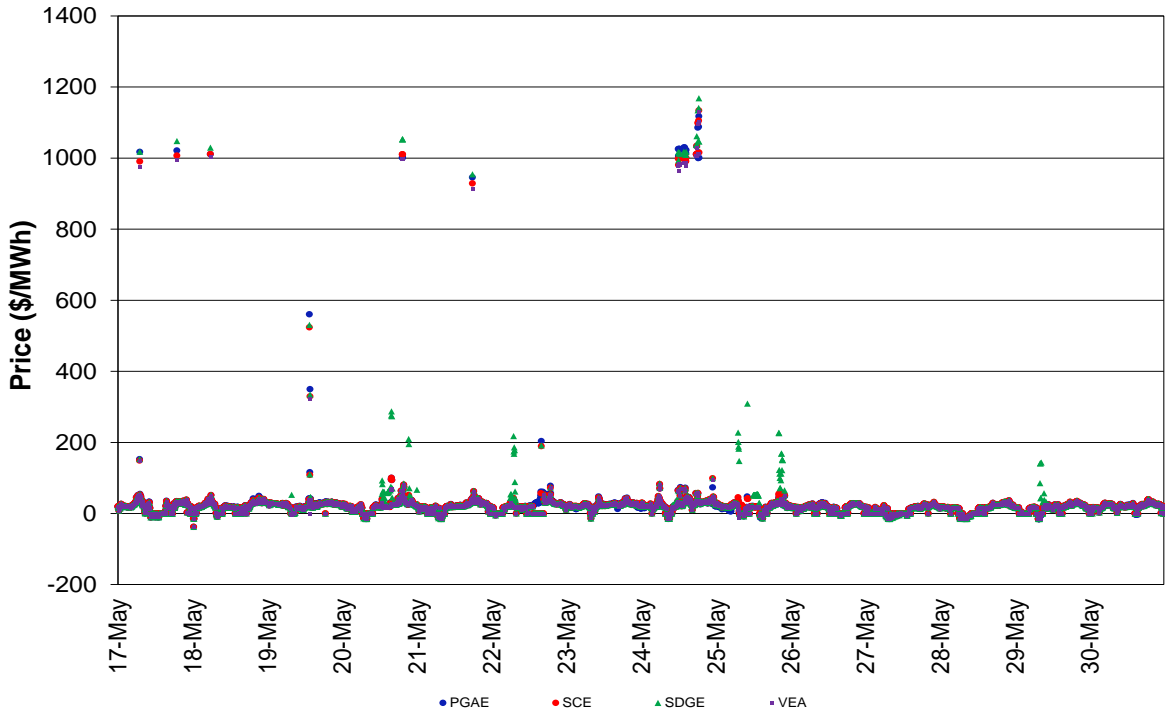


Figure 9: Real-Time FMM ELAP LMP

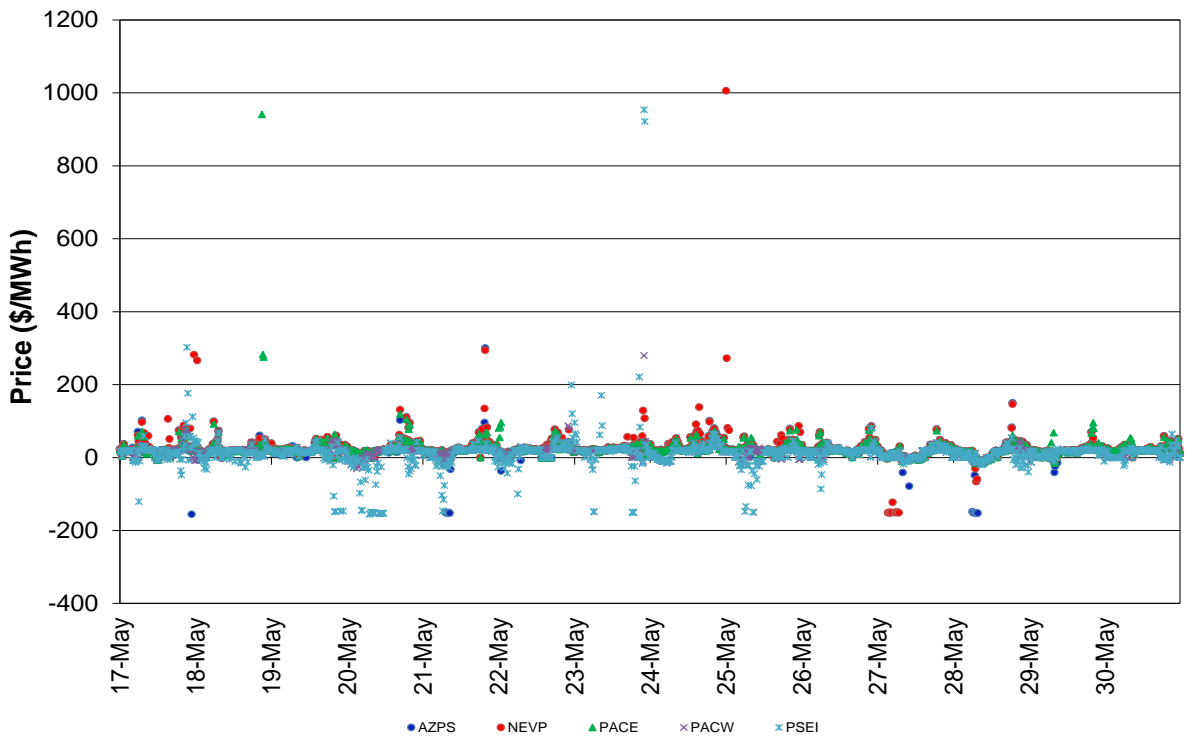


Figure 10: Real-Time RTD ELAP LMP

