

Market Highlights¹ (September 5–September 18)

- The average DLAP price in the integrated forward market was \$36.96. The maximum and minimum DLAP prices were \$141.09 and \$14.37, respectively. The maximum and minimum PNode prices in the integrated forward market were \$1,000.00 and -\$157.81 respectively.
- The top two interties congested in the integrated forward market were MALIN500 and NOB_ITC. Congestion rents in these two weeks totaled \$22,130,221.34.
- The average day-ahead ancillary service prices were between \$0.00 and \$44.63.
- Approximately 97.83 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$36.62, with a maximum price of \$1,104.43 and a minimum price of -\$7.17. The maximum and minimum PNode prices in the FMM were \$1,126.85 and -\$239.99, respectively.
- Out of the total 1,344 FMM intervals, 5 intervals saw DLAP prices above \$250, and 0 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 37 intervals saw ELAP prices above \$250 and 2 intervals saw ELAP prices below -\$150.
- The average real-time FMM ELAP price was \$29.18, with a maximum price of \$1,120.82 and a minimum price of -\$154.25.
- The average real-time RTD DLAP price was \$41.60, with a maximum price of \$1,327.15 and a minimum price of -\$55.59. The maximum and minimum PNode prices in the RTD were \$1,338.89 and -\$239.87, respectively.
- Out of the total 4,032 RTD intervals, 57 intervals saw DLAP prices above \$250 and 0 interval saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 118 intervals saw ELAP prices above \$250 and 11 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$31.05, with a maximum price of \$1,225.62 and a minimum price of -\$155.84.
- Root cause for daily high price events are noted in Tables 1 and 2.

Table 1 FMM Intervals	
Trade Date	Root Cause
FMM Sep 13 HE 19	Congestion on 6410_CP5_NG and change in renewable forecast.
FMM Sep 13 HE 20; Sep 15 HE 20	Congestion on 6410_CP5_NG.
FMM Sep 14 HE 20	Congestion on 6410_CP5_NG and RM_TM12_NG.

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 Sep 9 HE 7	Generator outage, load changes, and renewable deviations.
RTD Sep 10 HE 19	Load changes and congestion on RM_TM12_NG
RTD Sep 12 HE 19; Sep 17 HE 18	Load changes and renewable deviation.
RTD Sep 13 HE 18, HE 19	Congestion on 6410_CP5_NG, congestion on RM_TM12_NG, and renewable deviation.
RTD Sep 13 HE 21	Congestion on 24086_LUGO _500_26105_VICTORVL_500_BR_1_1.
RTD Sep 14 HE 17; Sep 15 HE 1, HE 2, HE 17	Congestion on 6410_CP5_NG.
RTD Sep 14 HE 18; Sep 15 HE 18, HE 19, HE 20	Congestion on 6410_CP5_NG and congestion on RM_TM12_NG.
RTD Sep 16 HE 18	Load changes, renewable deviation, and congestion on 6410_CP5_NG.
RTD Sep 18 HE 18	Congestion on 6410_CP5_NG and 7820_TL23040_IV_SPS_NG.

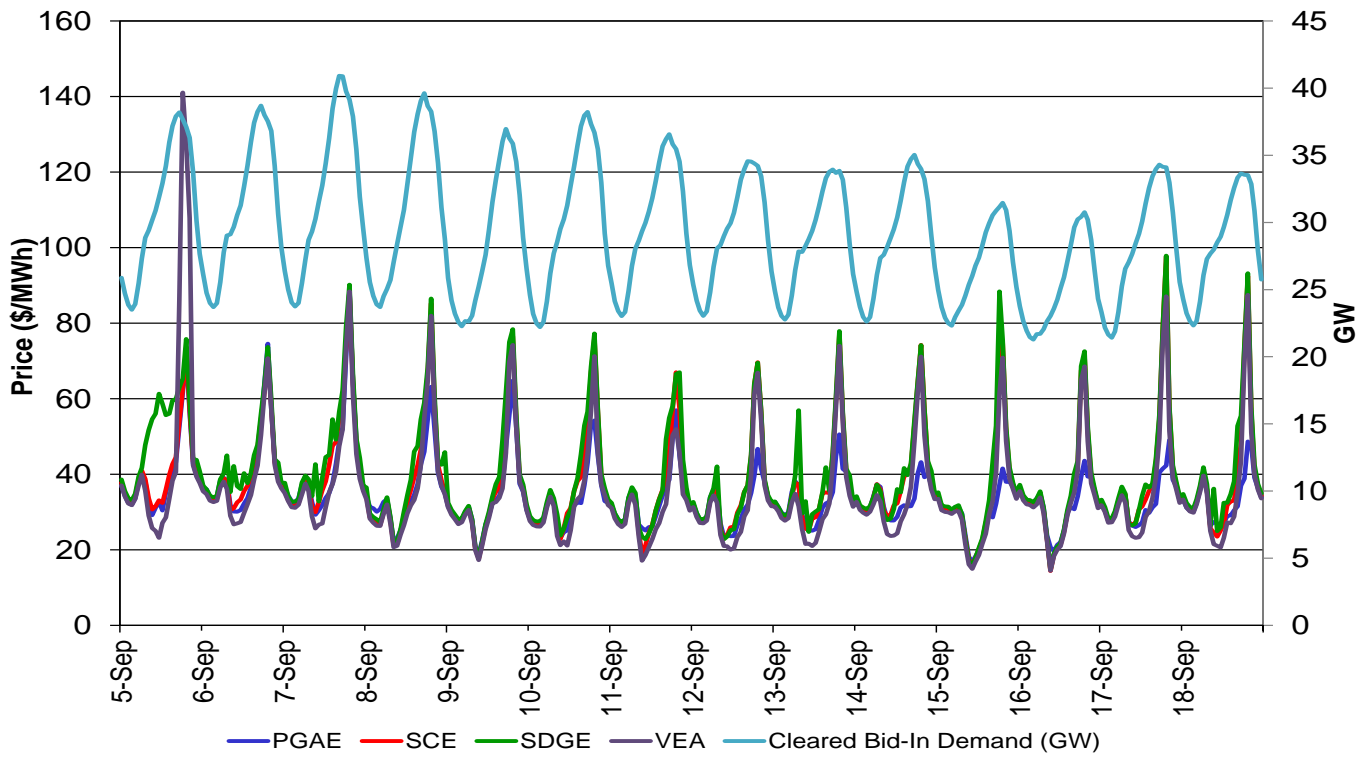
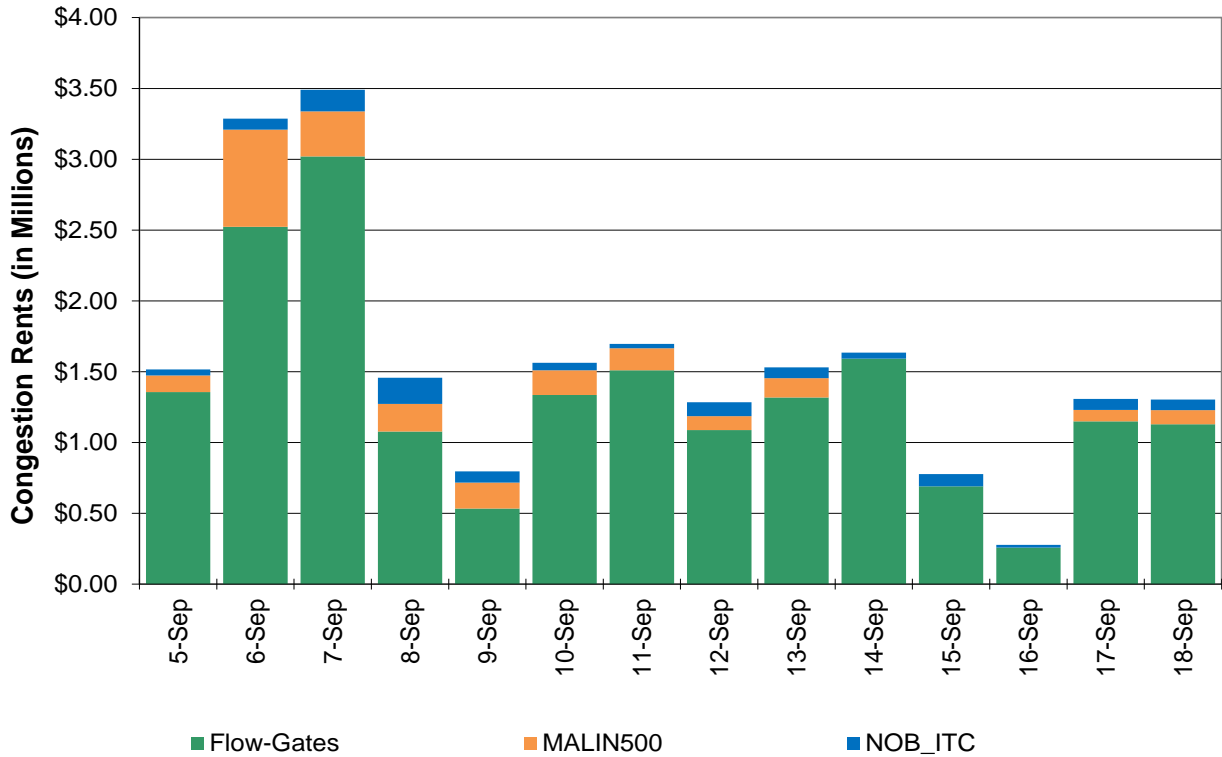
Figure 1: Day-Ahead (IFM) LAP LMP and Cleared Bid-In Demand


Figure 2: Day-Ahead Congestion Rents

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

Transmission Constraint	Congestion Rent
30055_GATES1_500_30900_GATES_230_XF_11_S	\$ 2,792,489.85
24016_BARRE_230_24154_VILLA PK_230_BR_1_1	\$ 1,842,059.38
6410_CP5_NG	\$ 1,826,835.58
7820_TL23040_IV_SPS_NG	\$ 1,752,692.04
30915_MORROBAY_230_30916_SOLARSS_230_BR_2_1	\$ 1,515,652.84
24036_EAGLROCK_230_24059_GOULD_230_BR_1_1	\$ 1,287,521.77
OMS6286861_TL50005_NG	\$ 660,277.48
MIGUEL_BKs_MXFLW_NG	\$ 399,137.97
30060_MIDWAY_500_24156_VINCENT_500_BR_1_1	\$ 341,835.09
30515_WARNERVL_230_30800_WILSON_230_BR_1_1	\$ 291,434.05
34548_KETTLEMN_70.0_34552_GATES_70.0_BR_1_1	\$ 139,892.81
30975_MDWAYR11_230_30060_MIDWAY_500_XF_11_P	\$ 107,007.54
30261_BELDENTP_230_30300_TABLMTN_230_BR_1_1	\$ 87,855.01
7820_TL_230S_OVERLOAD_NG	\$ 84,590.32
22136_CLAIRMNT_69.0_22140_CLARMTTP_69.0_BR_1_1	\$ 68,957.86
OMS_5985190_Tesla-LosBanos	\$ 57,105.14
32225_BRNSWKT1_115_32222_DTCH2TAP_115_BR_1_1	\$ 44,535.63
34469_GFFNJCT_70.0_34470_GIFFEN_70.0_BR_1_1	\$ 44,456.82

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

Transmission Constraint	Congestion Rent
24092_MIRALOMA_500_24093_MIRALOM_230_XF_4_P	\$ 42,148.23
34112_EXCHEQUR_115_34116_LE GRAND_115_BR_1_1	\$ 41,550.41
31640_TRES VIS_60.0_31644_BIGGSJCT_60.0_BR_1_1	\$ 41,282.01
22773_BAY BLVD_69.0_22352_IMPRLBCH_69.0_BR_1_1	\$ 39,318.87
31336_HPLND JT_60.0_31206_HPLND JT_115_XF_2	\$ 38,666.54
32218_DRUM_115_32244_BRNSWKT2_115_BR_2_1	\$ 37,530.40
33506_STANISLS_115_33503_FRGTNTP2_115_BR_1_1	\$ 36,347.53
24086_LUGO_500_24092_MIRALOMA_500_BR_3_1	\$ 27,209.91
22208_EL CAJON_69.0_22408_LOSCOCHS_69.0_BR_1_1	\$ 26,973.65
31220_EGLE RCK_115_31228_HOMSTKTP_115_BR_1_1	\$ 18,839.37
31336_HPLND JT_60.0_31370_CLVRDLJT_60.0_BR_1_1	\$ 17,532.06
38136_MARBLE_69.0_64281_MARBLSP_60.0_XF_1	\$ 15,602.37
30261_BELDENTP_230_30260_BELDEN_230_BR_1_1	\$ 15,409.43
34474_HELM_70.0_34556_STRD JCT_70.0_BR_1_1	\$ 14,459.75
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	\$ 11,108.67
6410_CP10_NG	\$ 9,429.40
34540_HENRITTA_70.0_30881_HENRIETA_230_XF_4	\$ 8,182.17
32380_WEMR SWS_60.0_32382_FORST HL_60.0_BR_1_1	\$ 7,654.51
OMS_5548842_HUMB_TRNTY	\$ 5,520.98
34774_MIDWAY_115_34225_BELRDG J_115_BR_1_1	\$ 4,357.71
24402_ANTELOPE_66.0_24420_NEENACH_66.0_BR_1_1	\$ 3,589.91
34116_LE GRAND_115_34134_WILSONAB_115_BR_1_1	\$ 3,027.73
31556_TRINITY_60.0_31555_MSS TAP2_60.0_BR_1_1	\$ 2,074.06
34552_GATES_70.0_39003_Q633SS_70.0_BR_1_1	\$ 1,876.60
34480_KEARNEY_70.0_34512_CARUTHRS_70.0_BR_1_1	\$ 1,773.97
34887_TAP SKRN_70.0_34882_SAN EMDO_70.0_BR_1_1	\$ 1,213.21
31080_HUMBOLDT_60.0_31092_MPLE CRK_60.0_BR_1_1	\$ 1,102.51
99254_J.HINDS2_230_24806_MIRAGE_230_BR_1_1	\$ 694.20
OMS 4790142 Caribou Bank	\$ 517.68
34562_SCHLNDLR_70.0_34354_SCHINDLR_115_XF_1	\$ 404.21
31604_COTTONWD_60.0_31611_RAWSON_60.0_BR_2_1	\$ 401.03
22296_FENTONTP_69.0_22292_FENTON_69.0_BR_1_1	\$ 383.26
31227_HGHLNDJ2_115_31950_CORTINA_115_BR_1_1	\$ 333.70
32214_RIO OSO_115_32225_BRNSWKT1_115_BR_1_1	\$ 272.37
34321_MCSWAINJ_70.0_34232_EXCHEQUR_70.0_BR_1_1	\$ 116.62
31476_KANAKAJT_115_31482_PALERMO_115_BR_1_1	\$ 25.00
33541_AEC_TP1_115_33540_TESLA_115_BR_1_1	\$ 24.86
31670_CHESTER_60.0_31672_HMLTN BR_60.0_BR_1_1	\$ 10.73
Totals	\$ 13,821,302.80



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

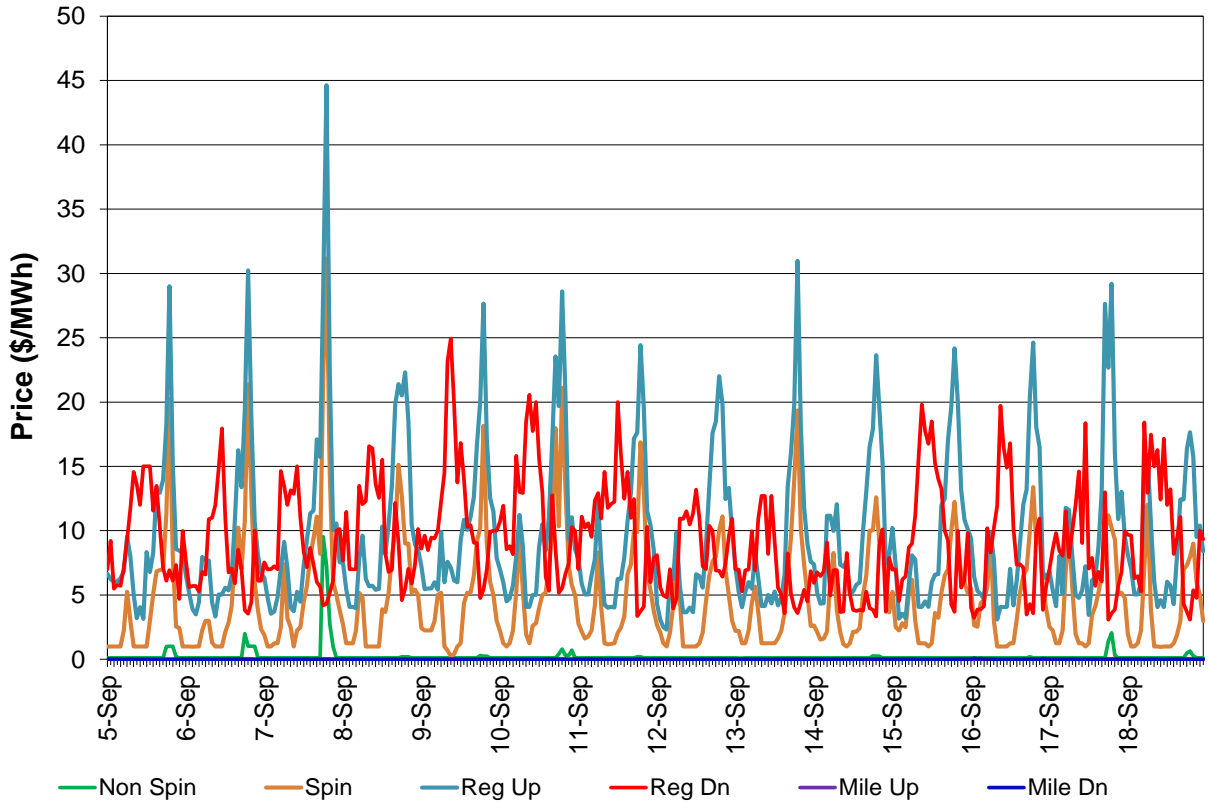


Figure 5: Day-Ahead Average RUC Price

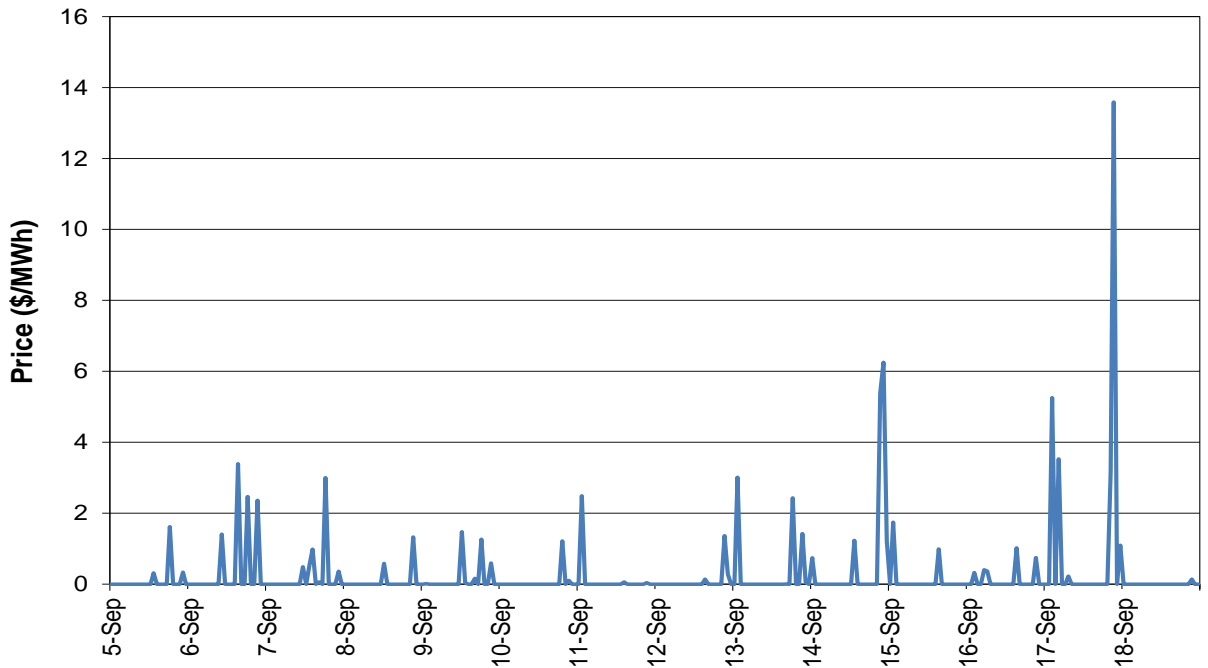




Figure 6: Real-Time FMM Average A/S Price

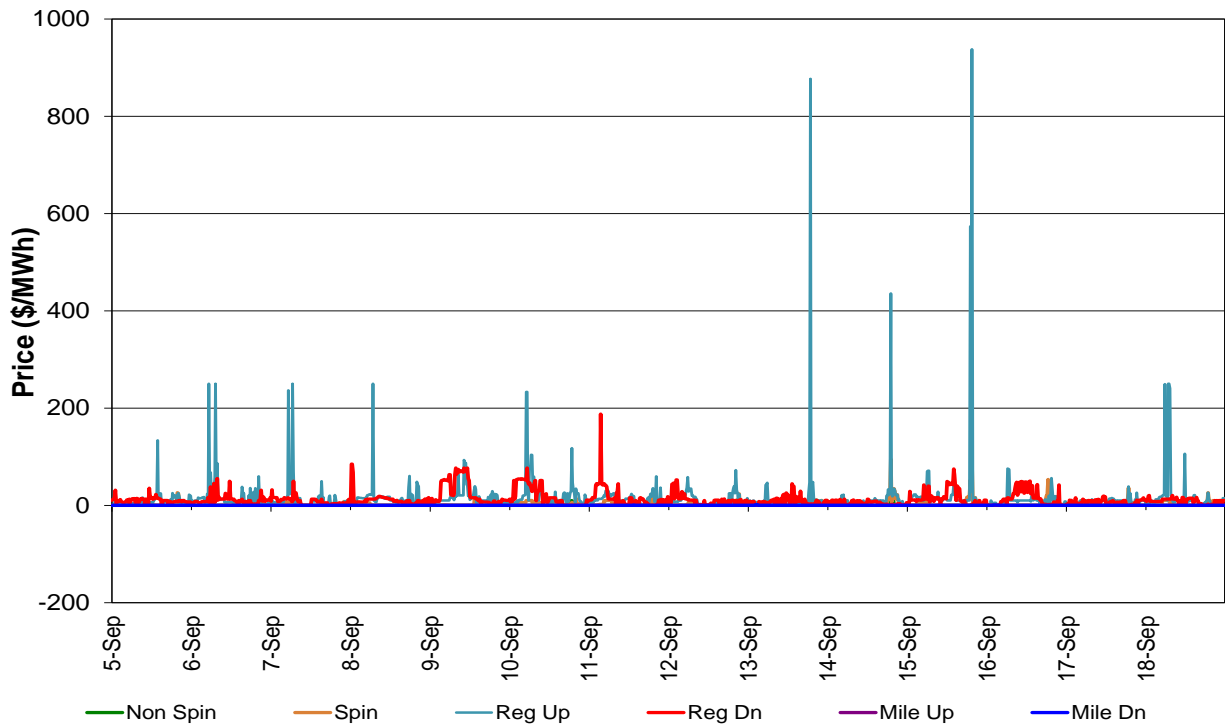


Figure 7: Real-Time FMM DLAP LMP

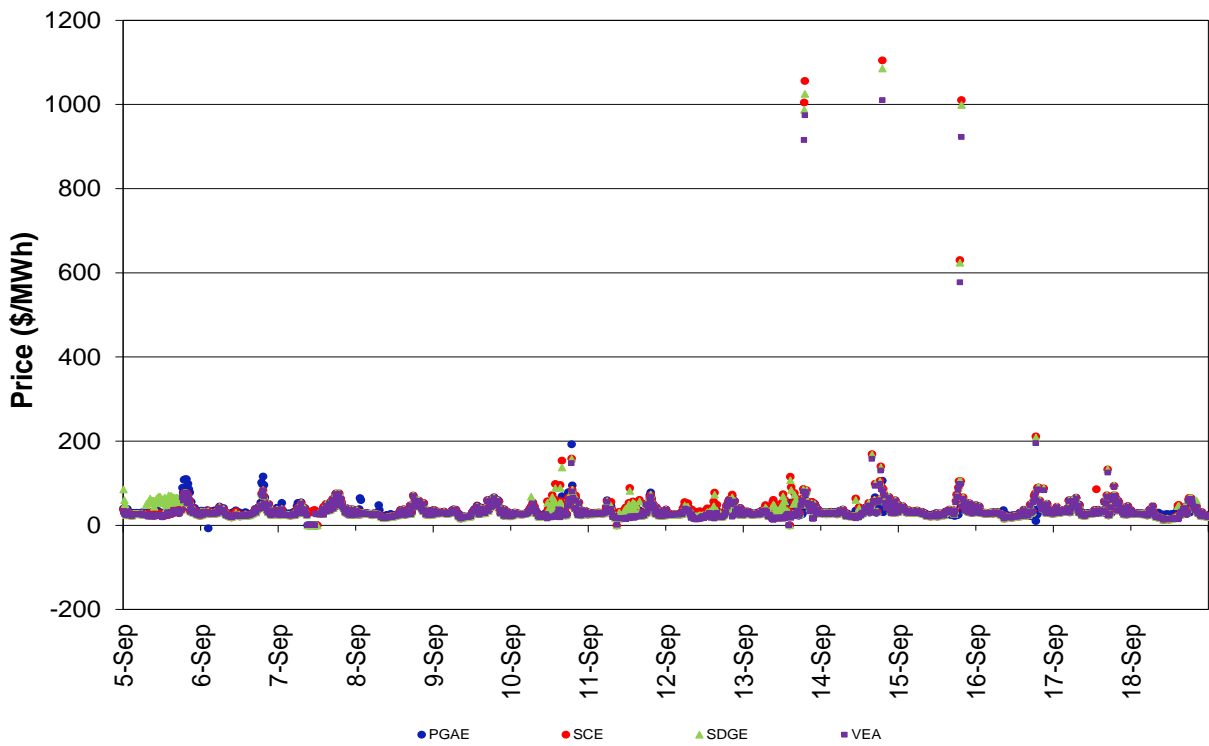


Figure 8: Real-Time RTD DLAP LMP

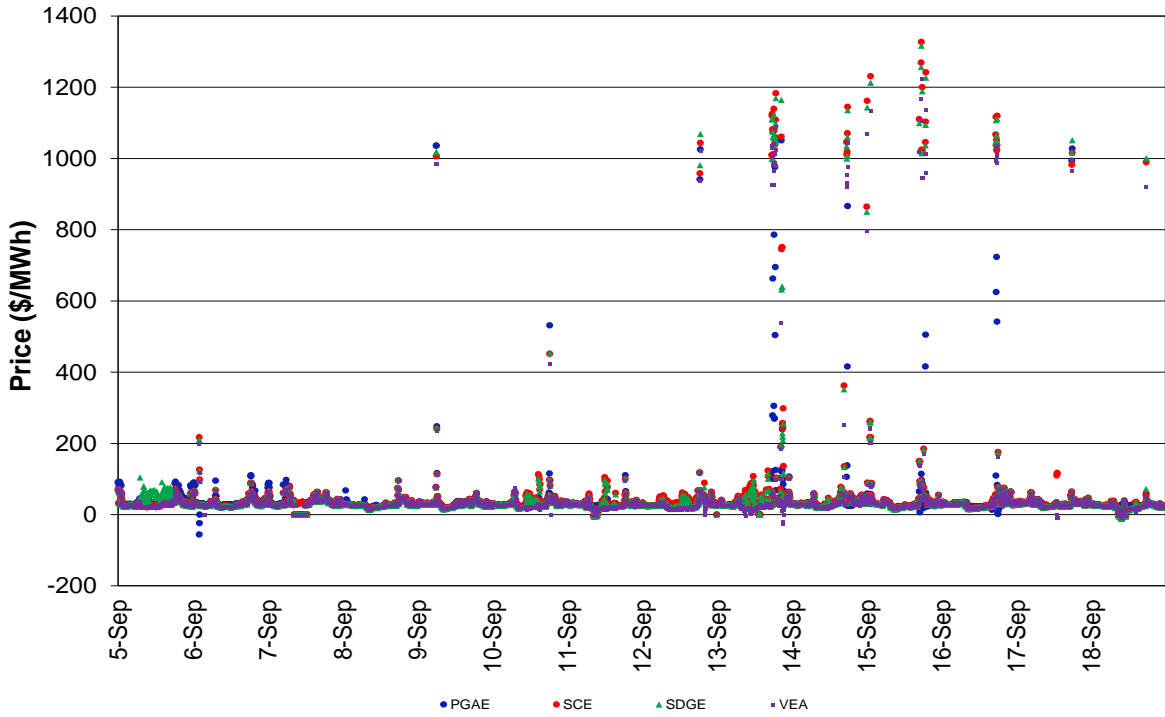


Figure 9: Real-Time FMM ELAP LMP

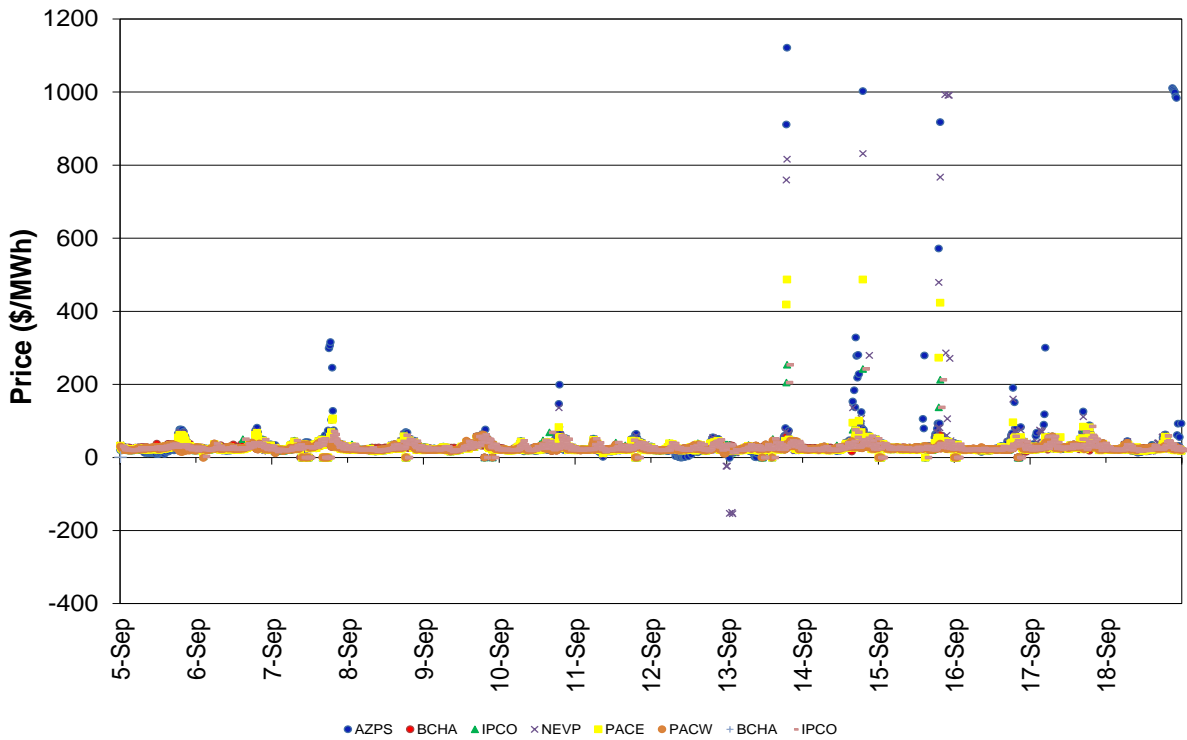


Figure 10: Real-Time RTD ELAP LMP

