



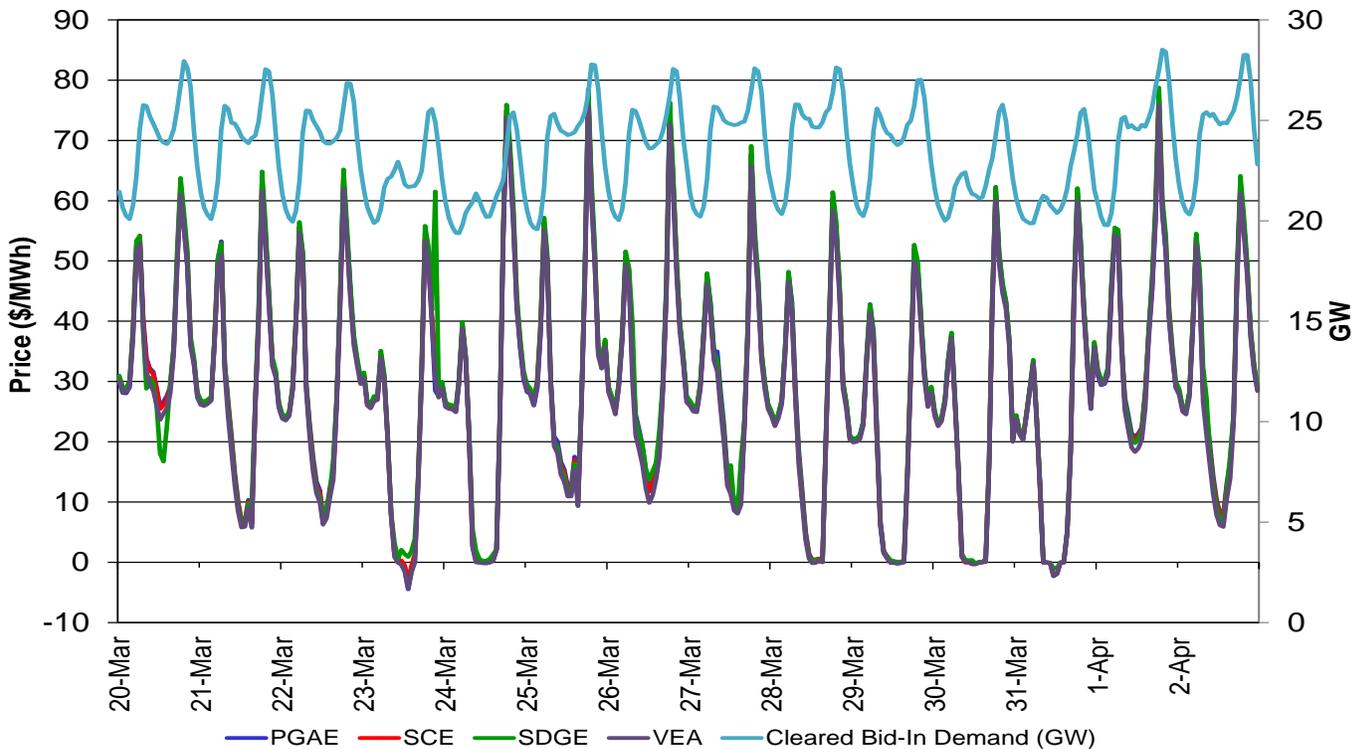
## Market Highlights<sup>1</sup> (March 20–April 2)

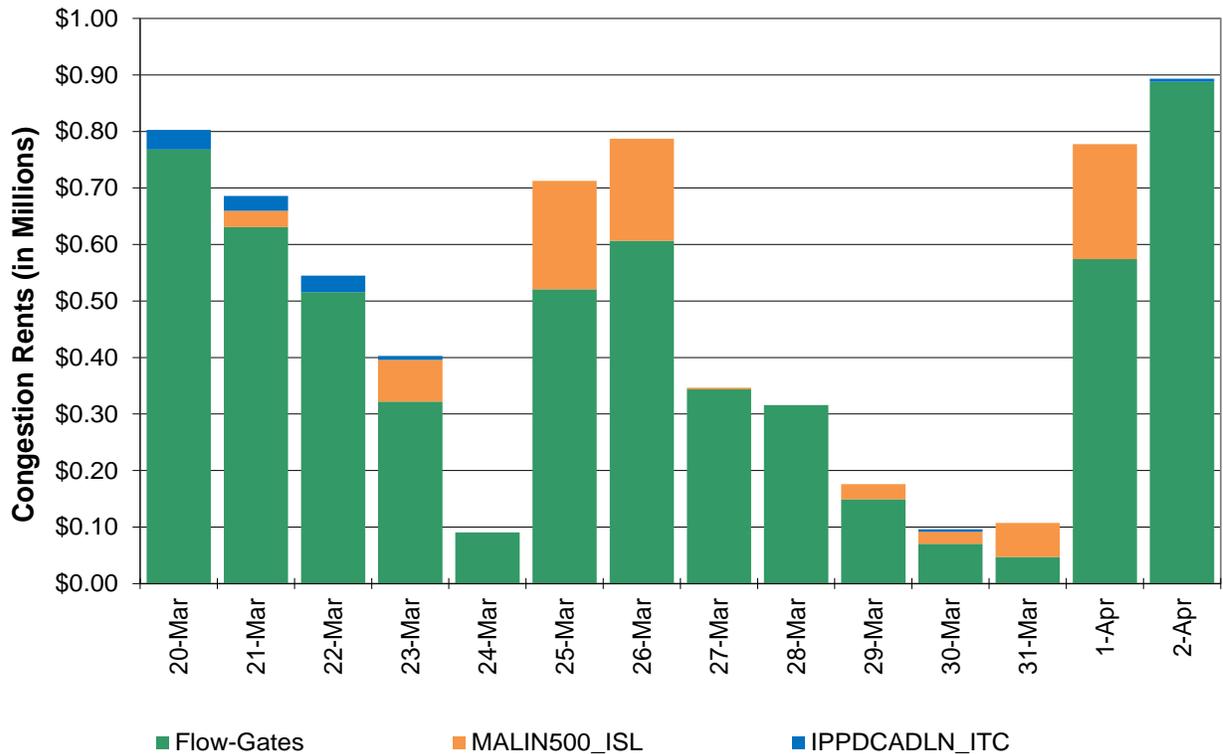
- The average DLAP price in the integrated forward market was \$28.13. The maximum and minimum DLAP prices were \$78.75 and -\$4.47, respectively. The maximum and minimum PNode prices in the integrated forward market were \$566.79 and -\$150.91 respectively.
- The top two interties congested in the integrated forward market were IPPDCADLN\_ITC and PALOVRDE\_ITC. Congestion rents in these two weeks totaled \$6,784,631.86.
- The average day-ahead ancillary service prices were between \$0.00 and \$147.07.
- Approximately 94.56 percent of the RUC requirements were met from RA units.
- The average real-time FMM DLAP price was \$28.73, with a maximum price of \$128.33 and a minimum price of -\$13.50. The maximum and minimum PNode prices in the FMM were \$1,128.80 and -\$1,254.77, respectively.
- Out of the total 1,344 FMM intervals, 0 intervals saw DLAP prices above \$250, and 0 intervals saw DLAP prices below -\$150.
- Out of the total 1,344 FMM intervals, 5 intervals saw ELAP prices above \$250 And 0 intervals saw ELAP prices below -\$150.
- The average real-time FMM ELAP price was \$24.55, with a maximum price of \$996.00 and a minimum price of -\$148.17.
- The average real-time RTD DLAP price was \$38.32, with a maximum price of \$1,105.62 and a minimum price of -\$47.06. The maximum and minimum PNode prices in the RTD were \$1,279.12 and -\$1,652.65, respectively.
- Out of the total 4,032 RTD intervals, 65 intervals saw DLAP prices above \$250 and 0 interval saw DLAP prices below -\$150.
- Out of the total 4,032 RTD intervals, 96 intervals saw ELAP prices above \$250 and 12 intervals saw ELAP prices below -\$150. The average real-time RTD ELAP price was \$31.40, with a maximum price of \$1,018.59 and a minimum price of -\$153.07.
- Root causes for daily high price events are noted in Tables 1 and 2.

Table 1 FMM Intervals	
Trade Date	Root Cause
None	None

<sup>1</sup> 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 Mar 20 HE 9; Mar 27 HE 9; Mar 30 HE 6; Apr 2 HE 18, HE 19, HE 23	Renewable deviation.
RTD Mar 20 HE 14; Mar 23 HE 1; Mar 23 HE 18; Mar 24 HE 1, HE 19; Mar 26 HE 18; Mar 28 HE 7; Apr 2 HE 24	Load changes and renewable deviation.
RTD Mar 21 HE 8; Mar 29 HE 23	Load changes, renewable deviation, and reduction of net imports.
RTD Mar 26 HE 19	Generator outage, congestion on COI_600 N-S.
RTD Mar 23 HE 5, HE 19	Renewable deviation.
RTD Mar 23 HE 23	Congestion on OMS 6895938 BARRE-ELLIS_NG.
RTD Mar 31 HE 1	Load changes.
RTD Apr 1 HE 16, HE 18	Load changes, renewable deviation, and congestion on 22356_IMPRLVLY_230_22360_IMPRLVLY_500_XF_81.

**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
7750_D-ECASCO_OOS_CP6_NG	\$ 3,312,400.79
7510-MAG-PAS3-OOS_NG	\$ 738,953.69
22192_DOUBLTTP_138_22300_FRIARS_138_BR_1_1	\$ 352,417.26
34418_KINGSBRG_115_34419_WAUKENA_115_BR_1_1	\$ 337,306.09
7820_TL 230S_OVERLOAD_NG	\$ 257,292.67
34700_SMYRNA 2_115_34742_SEMITRPJ_115_BR_1_1	\$ 134,357.73
32224_CHCGO PK_115_32232_HIGGINS_115_BR_1_1	\$ 85,873.08
30500_BELLOTA_230_30515_WARNERVL_230_BR_1_1	\$ 80,875.62
33936_MELNS JB_115_33951_VLYHMTP1_115_BR_1_1	\$ 73,580.54
OMS 6895938 BARRE-ELLIS_NG	\$ 71,128.73
32345_BEALE1J2_60.0_32351_WHTLND2_60.0_BR_2A_1	\$ 68,728.36
22192_DOUBLTTP_138_22648_PENSQTOS_138_BR_1_1	\$ 52,712.18
32314_SMRTSVLE_60.0_32349_BEALE2J1_60.0_BR_1_1	\$ 35,982.84
34548_KETTLEMN_70.0_34552_GATES_70.0_BR_1_1	\$ 32,041.68
32214_RIO OSO_115_32244_BRNSWKT2_115_BR_2_1	\$ 30,056.51
34144_MERCED_115_34202_MERCED_70.0_XF_2	\$ 27,813.90
34418_KINGSBRG_115_34405_FRWT TAP_115_BR_1_1	\$ 27,622.50
32212_E.NICOLS_115_32214_RIO OSO_115_BR_1_1	\$ 25,127.32
34112_EXCHEQUR_115_34116_LE GRAND_115_BR_1_1	\$ 16,061.41
7820_TL23040_IV_SPS_NG	\$ 11,652.02
34860_TAFT_70.0_34943_Q356TAP_70.0_BR_1_1	\$ 9,923.66

<b>Transmission Constraint</b>	<b>Congestion Rent</b>
34469_GFFNJCT_70.0_34470_GIFFEN_70.0_BR_1_1	\$ 9,404.91
22604_OTAY_69.0_22616_OTAYLKTP_69.0_BR_1_1	\$ 8,081.20
33916_CURTISS_115_33917_FBERBORD_115_BR_1_1	\$ 6,271.94
22136_CLAIRMNT_69.0_22140_CLARMTTP_69.0_BR_1_1	\$ 5,942.41
33932_MELONES_115_33500_MELNS JA_115_BR_1_1	\$ 5,227.31
7690-CONTRL-INYOKN_EXP_NG	\$ 4,935.85
22644_PENSQTOS_69.0_22164_DELMARTP_69.0_BR_1_1	\$ 3,721.29
34116_LE GRAND_115_34134_WILSONAB_115_BR_1_1	\$ 3,313.09
32218_DRUM_115_32244_BRNSWKT2_115_BR_2_1	\$ 3,049.52
34321_MCSWAINJ_70.0_34232_EXCSEQUR_70.0_BR_1_1	\$ 2,633.76
31461_JESSTAP_115_31464_COTWDPGE_115_BR_1_1	\$ 2,332.28
22356_IMPRLVLY_230_22360_IMPRLVLY_500_XF_81	\$ 2,197.25
31335_GRANITE_60.0_31336_HPLND JT_60.0_BR_1_1	\$ 1,106.43
31336_HPLND JT_60.0_31206_HPLND JT_115_XF_2	\$ 731.11
31218_ER_FTNJT_115_31220_EGLE RCK_115_BR_1_1	\$ 616.60
32328_YBA CTYJ_60.0_32332_PEASE_60.0_BR_1_1	\$ 505.84
32219_DR360370_115_32242_DRUM 1M_1.0_XF_1	\$ 394.83
34932_WASCO_70.0_34934_SEMITRPC_70.0_BR_1_1	\$ 322.77
34930_MC FRLND_70.0_34932_WASCO_70.0_BR_1_1	\$ 14.59
<b>Totals</b>	<b>\$ 5,842,711.55</b>



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

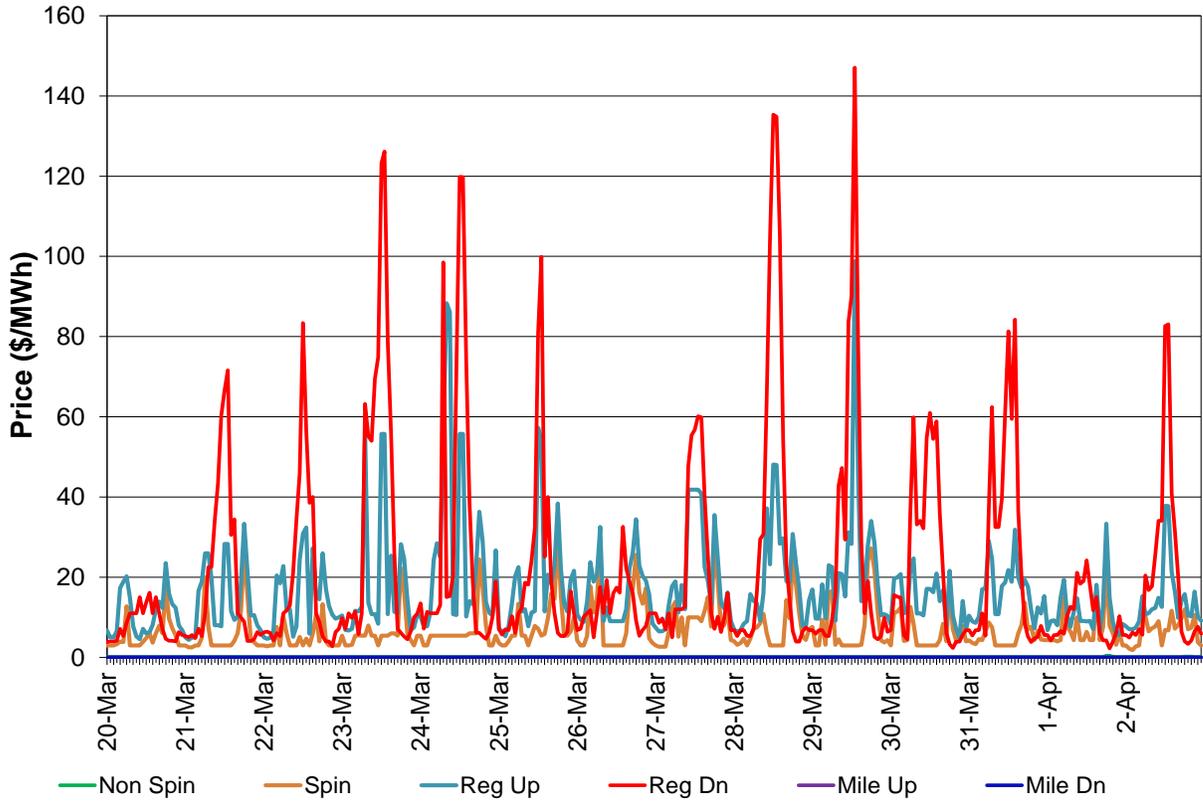


Figure 5: Day-Ahead Average RUC Price

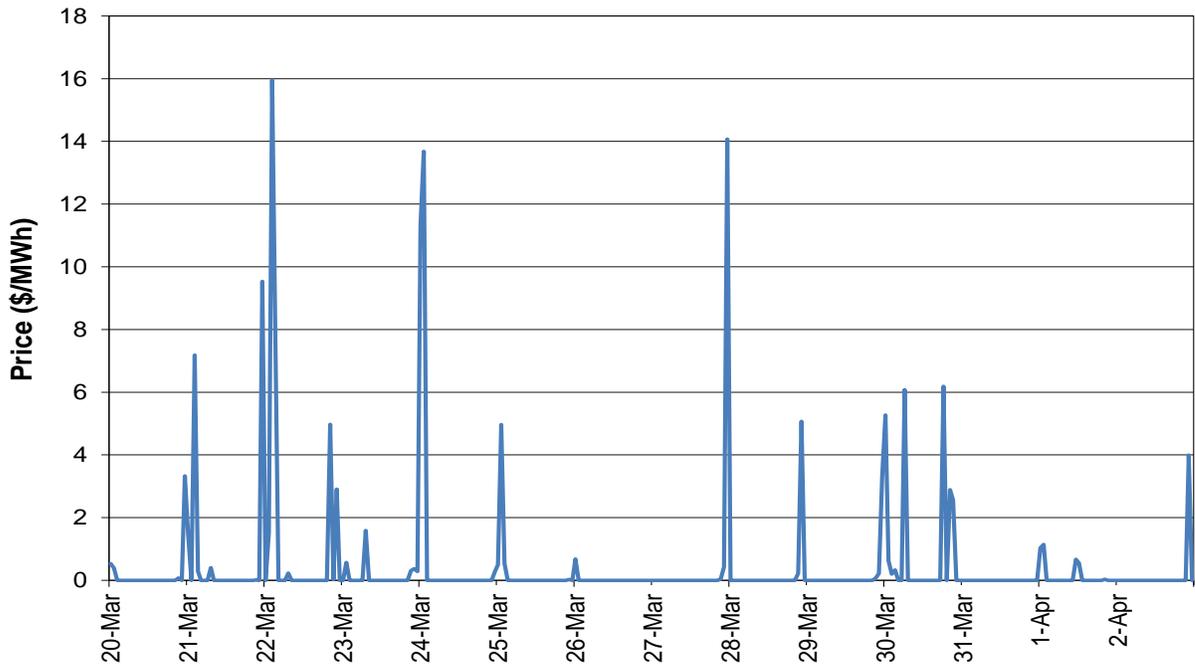




Figure 6: Real-Time FMM Average A/S Price

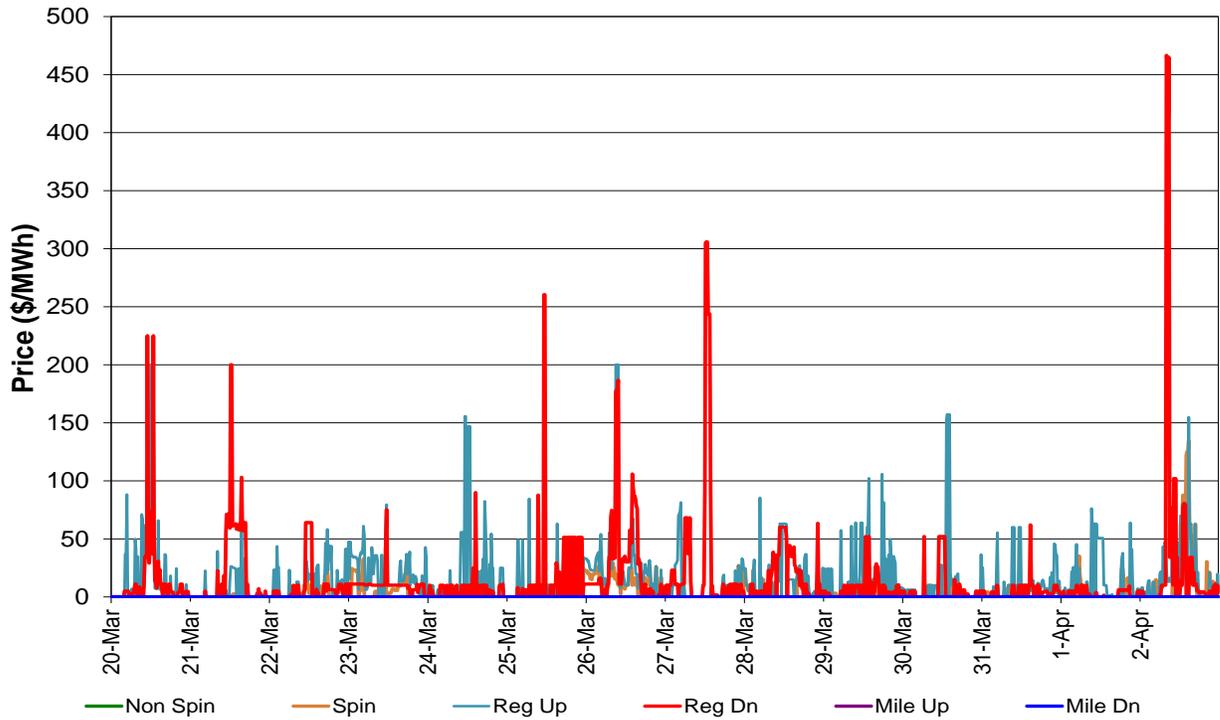
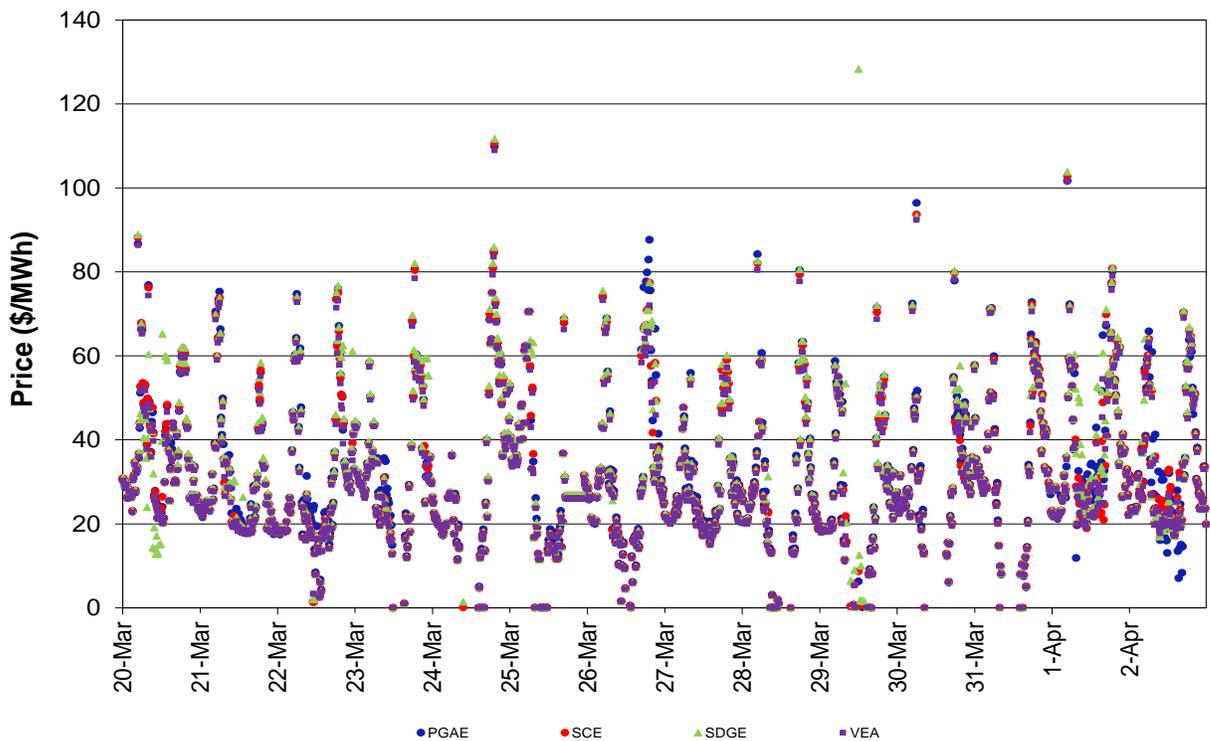
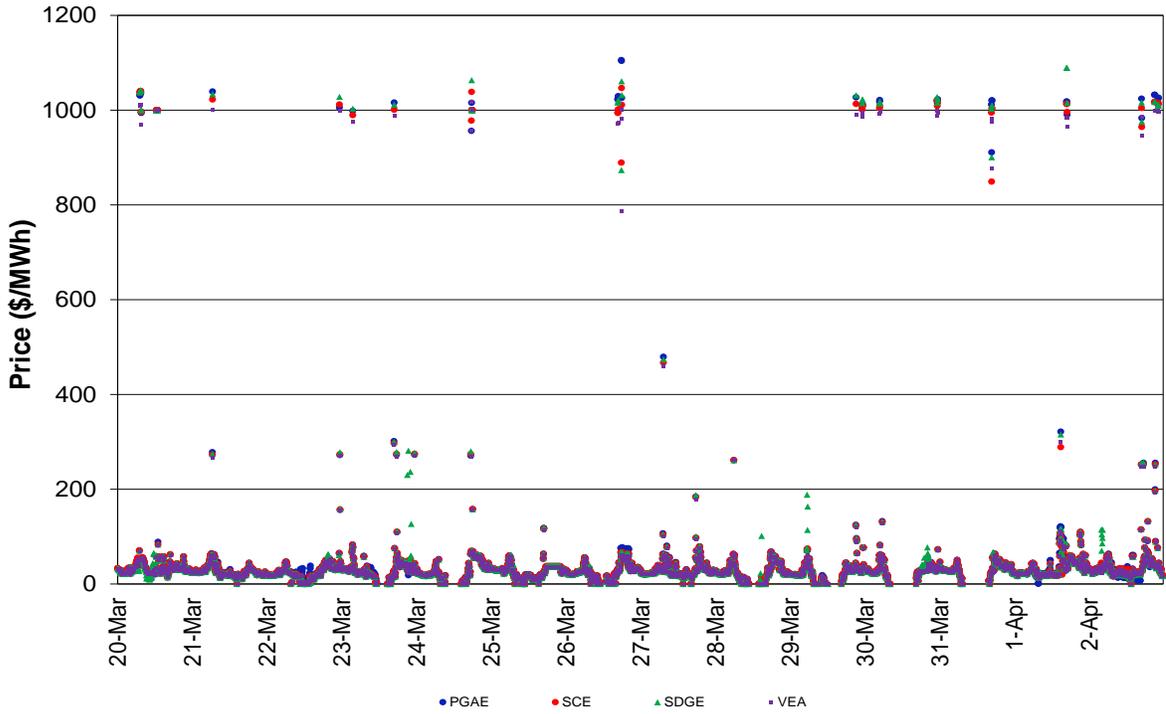


Figure 7: Real-Time FMM DLAP LMP



**Figure 8: Real-Time RTD DLAP LMP**



**Figure 9: Real-Time FMM ELAP LMP**

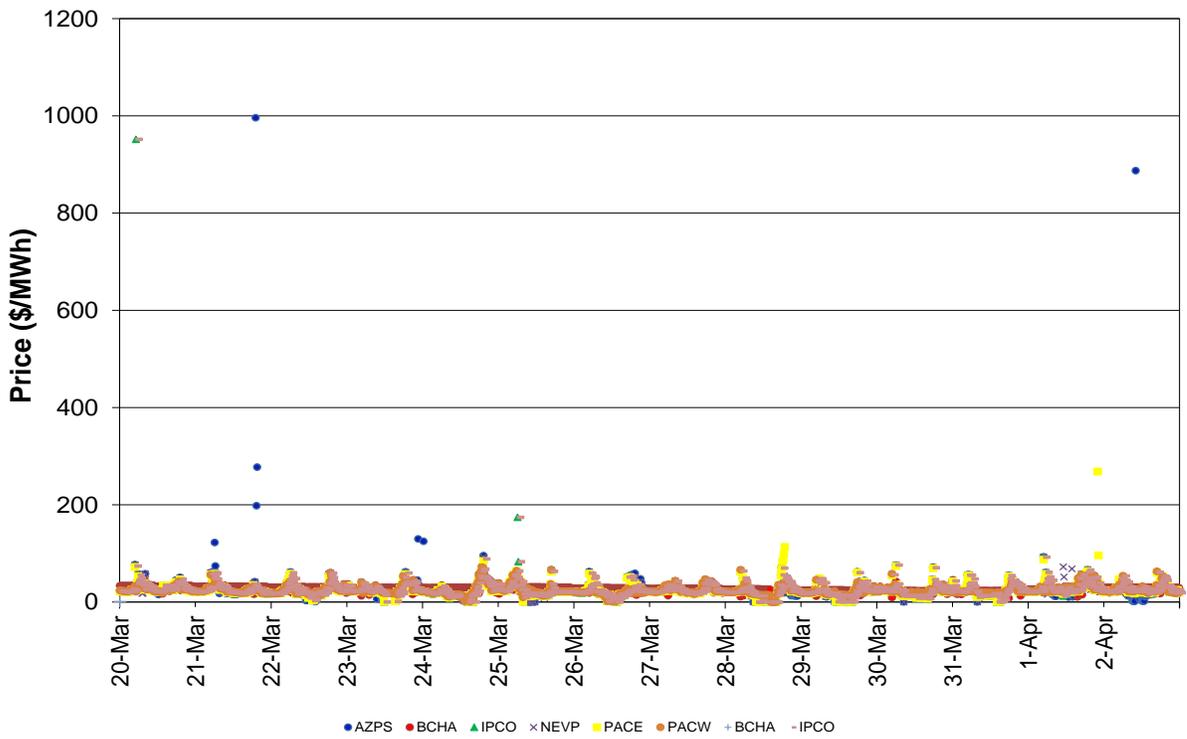


Figure 10: Real-Time RTD ELAP LMP

