



Promoting a Regional Competitive Electricity Market

April 2017

April 2017 Highlights
(In comparison to March 2017)

Total turnover (all markets)	▲ +\$ 701,399.82/ +18.4%
Traded Volumes(All markets)	▲ +51,973.90 MWh / +63%
DAM Traded Volumes	▲ +26,740.50 MWh / +42.7%
FPM Monthly traded Volumes	▼ - 3,469.60 MWh / - 53.5%
FPM Weekly traded Volumes	▲ +16,693 MWh / +201.6%
IDM Traded Volumes	▲ +12,011 MWh / +233.6%

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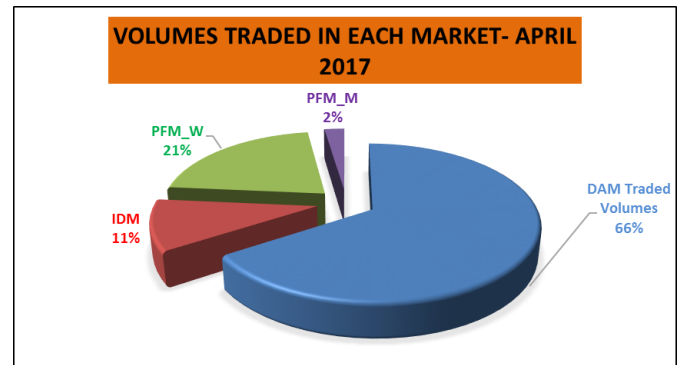
Participation Levels

There were eleven (11) active portfolios from eight (8) members in the competitive market during the month of April 2017. There was a slight improvement in active portfolios in April 2017 when compared to the month of March 2017 in which there were ten (10) active portfolios from seven (7) members.

Market Liquidity

Trading on the market was significantly higher during the month of April 2017 when compared to March 2017. Total traded volumes on the Day Ahead market (DAM), intra-day market (IDM), Forward Physical Monthly Market (FPM-M) and Forward Physical Weekly Market (FPM-W) increased by **63% to 126,853.9 MWh** in the month of April 2017, from the March 2017 figure of 74,880 MWh. Below is the overview of volumes traded in DAM, IDM, FPM-M and FPM-W for the month of April 2017.

Fig 1.1: Traded Volumes in MWh in DAM, IDM, FPM-W and FPM-M for the month of April 2017.



Forward Physical Monthly Market (FPM-M)

Total traded volumes on Forward Physical Market Monthly (FPM-M) were significantly lower in April 2017 at **2,970MWh**. This figure represents a decrease of **53.5% or 3,469.6MWh** from the March 2017 traded volumes of 6,440MWh. The total energy that was matched in the month of April 2017 in the FPM-M significantly decreased by 82.9% or 11,148.2 MWh to 3,731.80 MWh from the March 2017 matched volume of 14,880MWh.



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Fig 2.1 FPM Monthly Market: Daily Traded Volumes for April 2017 (MWh)

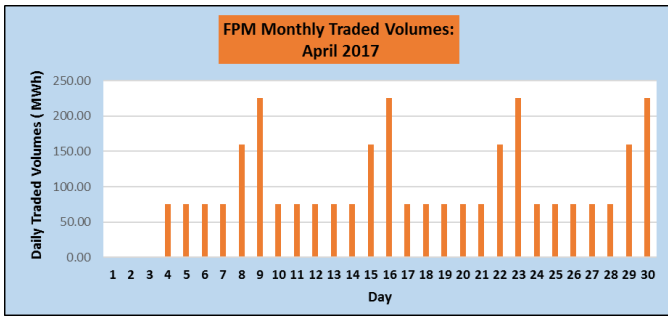


Fig 2.2 FPM Monthly Market: Traded Volumes(MWh) from January 2017 to April 2017 (MWh)

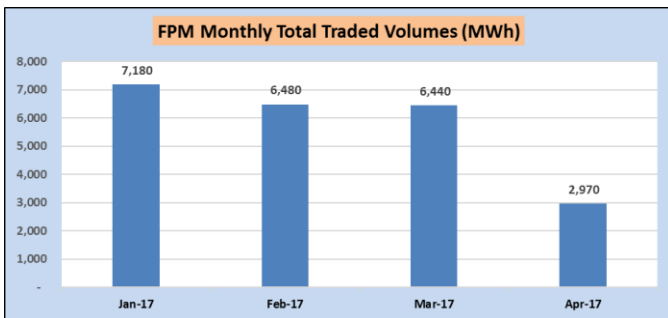
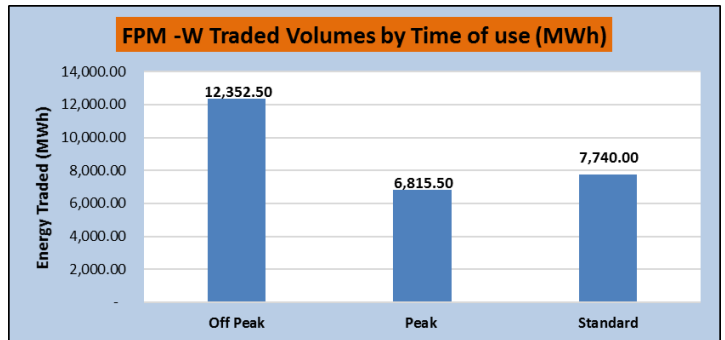
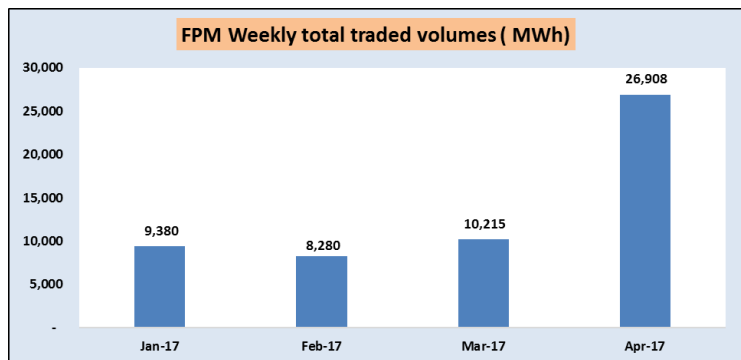


Fig 3.2 FPM Weekly Market: Traded Volumes by time of use for April 2017 (MWh)



As shown above, 45.9% of the total energy that was traded (26,908 MWh) was for the Off-Peak period and the remainder was for the Peak (25.3%) and standard (28.8%) periods.

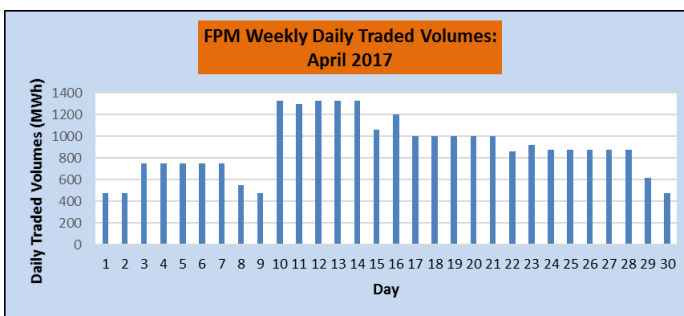
Fig 3.3 FPM Weekly Market: Traded Volumes (January 2017 to April 2017)



Forward Physical Weekly Market (FPM-W)

The total energy traded in FPM-W increased by **201.6% or 16,693MWh to 26,908MWh** in April 2017. In March 2017 the traded volumes in the FPM Weekly market were 10,215MWh. The total volumes matched in the FPM Weekly market increased by 12,238 MWh or 105.8% to 29,663 MWh in April 2017 from 17,425 in March 2017.

Fig 3.1 FPM Weekly Market: Daily Traded Volumes for April 2017 (MWh)



Day Ahead Market (DAM)

A total of **83,517MWh** was traded in the Day Ahead Market (DAM) trading platform in April 2017, registering a **42.7% increase** in traded volumes when compared to the March 2017 figure of **56,777 MWh**. There were more sale offers than buy bids received in April 2017 in the DAM trading platform. A total of 623,699MWh Sale offers and a total of 153,054 MWh Buy bids were received in April 2017. There was an increase of 11,829 MWh or 2.4% in Sale offers received in April 2017 when compared to March 2017 figure of 611,870 MWh. There was an increase of 39,977 MWh or 16.7% in buy bids received in April 2017 when compared to March 2017 figure of 113,077MWh.



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There was matching of bids in DAM for 30 days and 719 hours or 99.86% of the time during the month of April 2017. Trading also occurred for 30 days and 718 hours or 99.72% of the time. In comparison to March 2017 where matching occurred for 31 days and 742 hours or 99.73% with trading occurring for 31 days and 740 hours or 99.46% of the time.

Fig 4.1: Traded volumes in DAM by time of use for April 2017

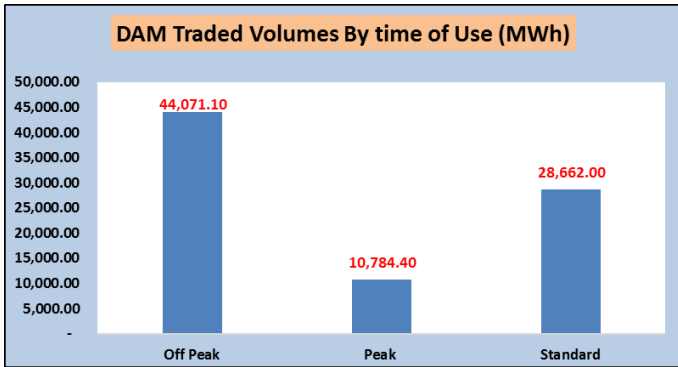
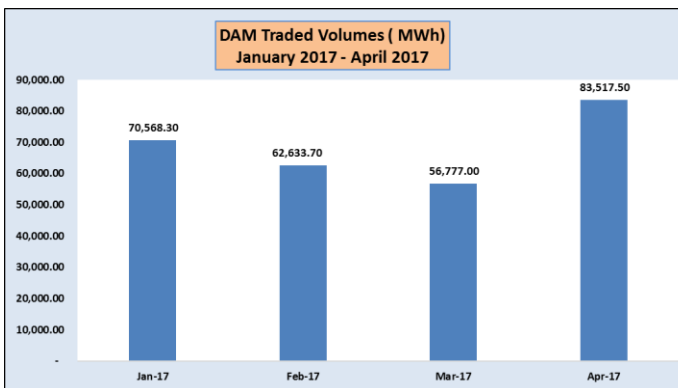


Fig 4.2: Total volumes traded in DAM (MWh) from January 2017 to April 2017



0.7% from 25,177.50 MWh in March 2017 to 25,716 MWh in April 2017.

Fig 5.1: IDM Bids and Traded Volumes for April 2017 (MWh)

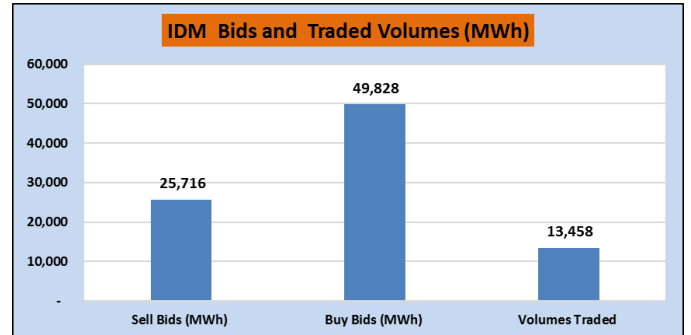
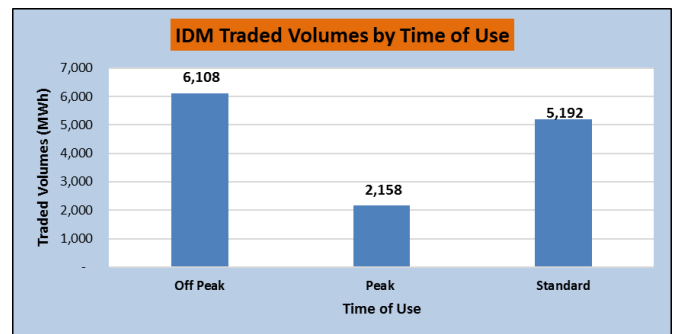
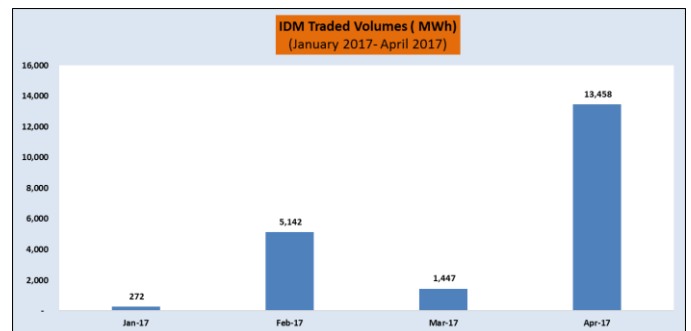


Fig 5.2: IDM Traded Volumes by time of use for April 2017 (MWh)



As shown above, 45.4% of the energy traded in IDM in April 2017 was traded during Off Peak period whilst the remainder was for the Standard (38.6%) and Peak (16%) periods.

Fig 5.3: IDM Traded Volumes from January 2017 to April 2017 (MWh)



Intra-day market (IDM)

Trade in the IDM in April 2017 was significantly higher at **13,458 MWh** when compared to March 2017 traded volume of **1,447.00 MWh**, which is an increase of 12,011MWh or 233.6%.

Buy bids in IDM increased by 11.8% or 20,486MWh from 29,342 MWh in March 2017 to 49,828 MWh in April 2017. Sale offers marginally increased by



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Impact of Transmission Constraints

There was an improvement in transmission capacity for the competitive market in the month of April 2017, with **99.86%** of the matched energy in DAM having been traded unlike the month of March 2017 where **99.46%** of the energy that was matched in DAM was traded. In April 2017, 87,205.7MWh was matched in DAM and 83,517.5 MWh was traded. In March 2017 on the other hand, 58,812.2MWh was matched on the DAM trading platform and 56,777 MWh was traded.

Fig 5.1 Impact of Transmission Constraints on DAM Trading for the month of April 2017.

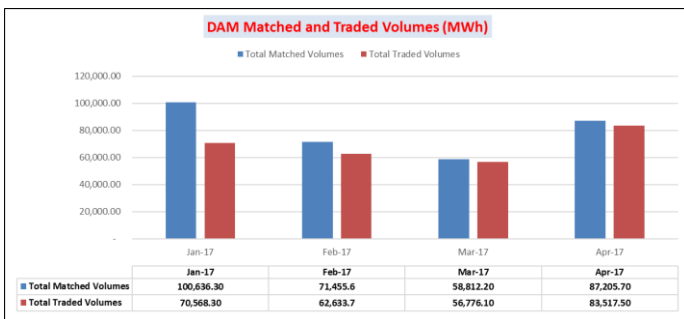
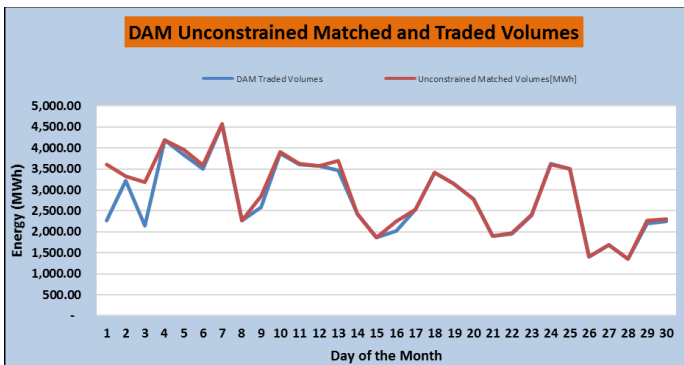


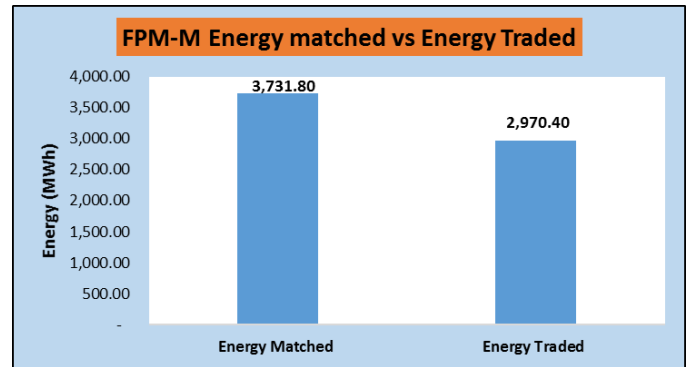
Fig 5.2 Energy matched and energy traded in DAM Trading platform for the month of April 2017.



As shown above there was a minor difference between matched and traded volumes during the first three days of the month of April 2017 as a result of transmission constraints for the competitive market.

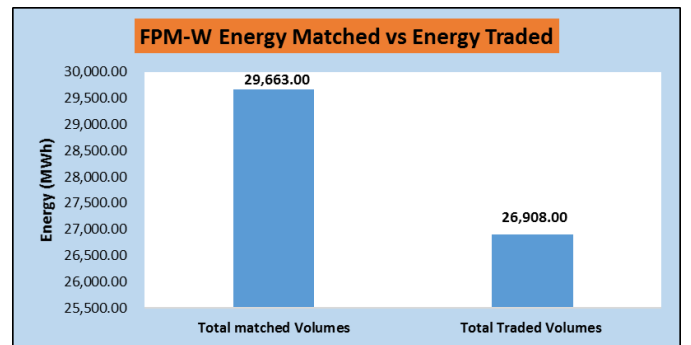
Energy matched but not traded in the FPM Monthly Market for the month of April 2017 was 761.4 MWh. 3,731 MWh was matched, resulting in 20.4% of the matched energy failing to be traded. In March 2017, 56.72% of the total energy that was matched did not get traded.

Fig 5.3: Energy Matched and energy traded in FPM Monthly for the month of April 2017.



In the FPM Weekly market, 29,663 MWh was matched and 26,908MWh was traded in April 2017. Consequently, 2,755 MWh (10.24% of matched volumes) was not traded.

Fig 5.4: Energy Matched and energy traded in FPM Weekly Trading platform for the month of April 2017.



Market Clearing Prices

FPM Monthly Prices

Non off-peak prices decreased by 12.6% from 7.979 USc/KWh in March 2017 to 6.732 USc/KWh in April 2017. Off Peak prices marginally increased

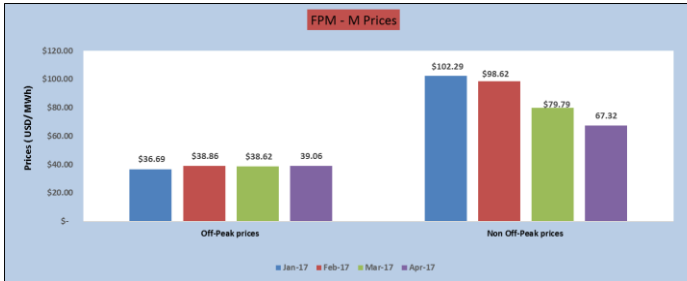


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by 1.1% from 3.862 USc/KWh in March 2017 to 3.906 USc/KWh in April 2017.

Fig 6.1 FPM-M prices by time of use for the month of April 2017.



FPM Weekly Prices

The average price for the Peak period was slightly lower by 3.6% at 8.837USc/KWh in April 2017 from the March average peak price of 9.2127USc/KWh. Standard period average prices decreased from the March 2017 average prices of 5.978 USc/KWh to 3.764USc/KWh in April 2017. The average Off-Peak price also marginally decreased by 3.8% from 2.7924 USc/KWh in March 2017 to 2.678USc/KWh in April 2017.

Fig 6.2 FPM-W Average prices for the Month of April 2017.

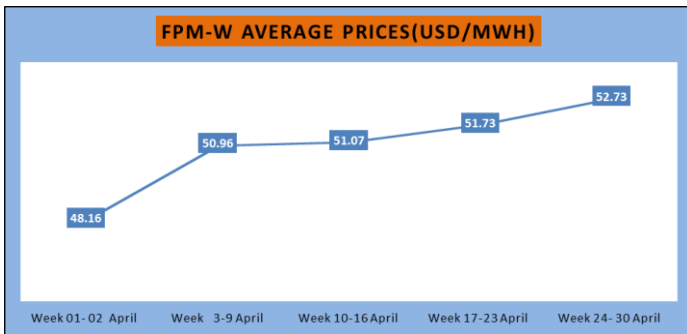
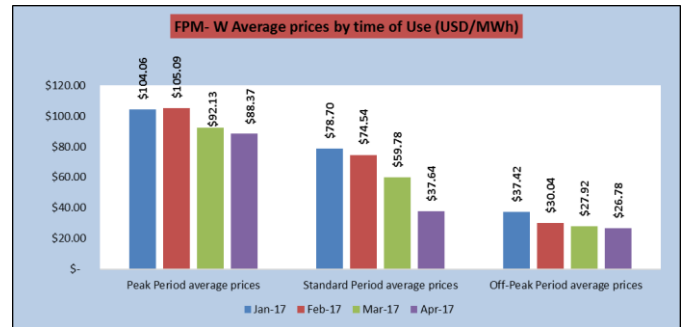


Fig 6.3 FPM-W average prices by time of use for the month of April 2017.



Day Ahead Market

The monthly average Day Ahead market clearing price (MCP) was slightly higher during the month of April 2017 at 3.829USc/KWh when compared to the 3.783USc/KWh recorded in March 2017. Below is a summary of the daily average MCPs for the month of April 2017.

Fig 6.4 Daily Average MCP prices for the month of April 2017.

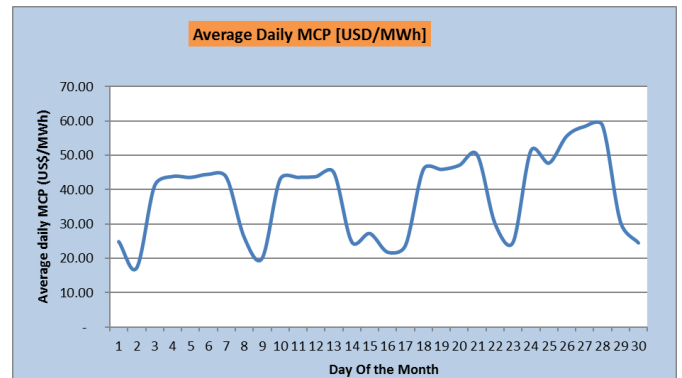


Fig 6.4 Daily Average MCP prices January 2017 to April 2017.



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Revenue Performances

A total of **USD 3,409,263.31** was exchanged on the DAM, IDM, FPM-W and FPM-M market during the month of April 2017 when compared to a total of **USD 2,707,863.49** exchanged in March 2017. The Increase is mainly attributed to the increase in traded volumes.



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