



**September 2016 Highlights**

(In comparison to August 2016)

Total turnover (all markets)	▼ -\$340,991.46 / -3.2%
Traded Volumes(All markets)	▼ -8,799.7MWh / -7.4%
DAM Traded Volumes	▼ -11,572.7MWh / -12.1%
FPM Monthly traded Volumes	▼ -40 MWh / -0.6%
FPM Weekly traded Volumes	▼ -948 MWh / -10.2%
IDM Traded Volumes	▲ +3,761 MWh / +59.6%

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**Participation Levels**

There were eleven (11) active portfolios from eight (8) participating members during the month of September 2016. This was a marginal improvement when compared to the month of August 2016 in which there were eleven (11) active portfolios from seven (7) members.

**Market Liquidity**

Trading in the market was significantly lower during the month of September 2016 when compared to August 2016. Total traded volumes on the Day Ahead market (DAM), intra-day market (IDM), Forward Physical Market Monthly (FPM-M) and Forward Physical Market Weekly (FPM-W) decreased by **7.4% to 109,612 MWh** in the month of September 2016, from the August figure of 118,411 MWh. Below is the overview of volumes traded in DAM, IDM, FPM-M and FPM-W for the month of September 2016.

Fig 1.1: Traded Volumes in MWh in DAM, IDM, FPM-M and FPM-W for the month of September 2016.

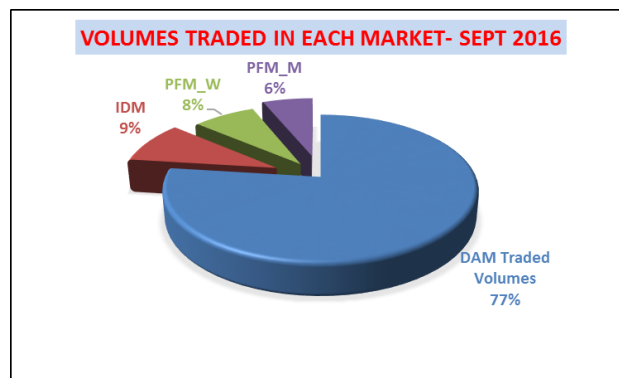
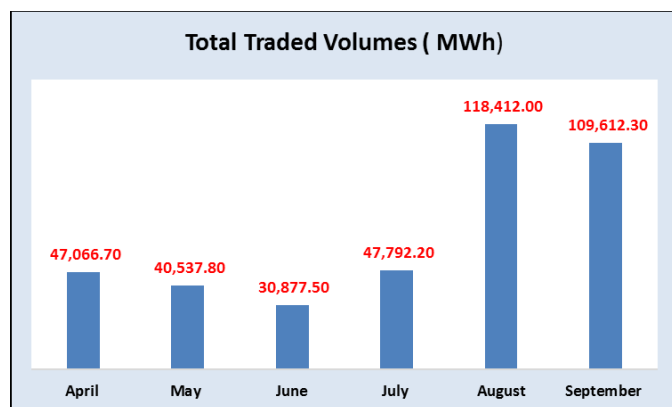


Fig 1.2: Total Monthly Traded Volumes in MWh in DAM, IDM, FPM-W and FPM-M (April 2016 to September 2016)



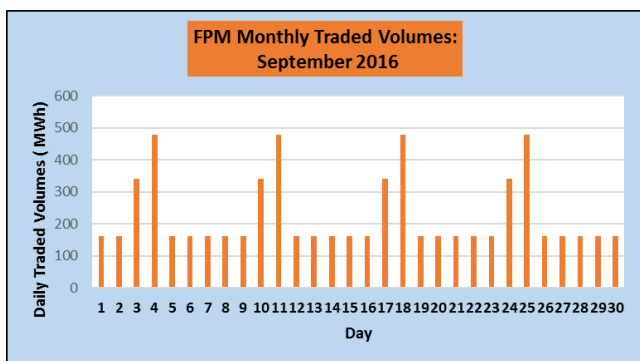
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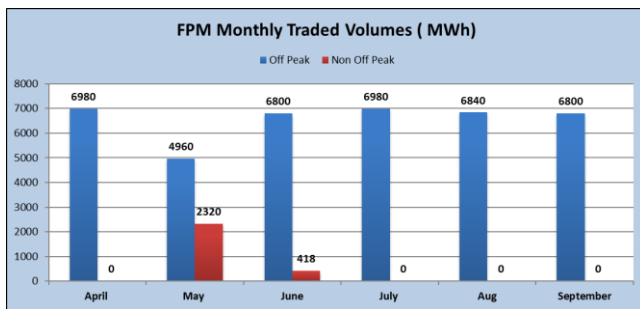
**Forward Physical Monthly Market (FPM-M)**

Total traded volumes on Forward Physical Monthly Market (FPM-M) were marginally lower in September 2016 at **6,800 MWh**. This figure represents a marginal decline of **0.6% or 40 MWh** from the August traded volumes of 6,840 MWh. The total energy that was matched in the month of September 2016 in the FPM-M significantly increased by 294.8% or 133,360 MWh to 178,600MWh from the August 2016 volume of 45,240MWh

**Fig 2.1 FPM Monthly Market: Daily Traded Volumes for September 2016 (MWh)**



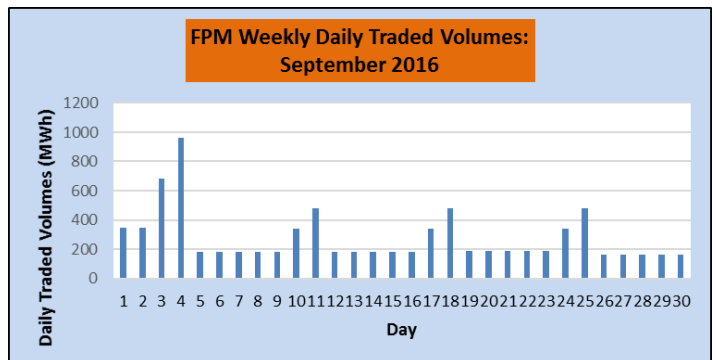
**Fig 2.3 FPM Monthly Market: Traded Volumes(MWh) from April to September 2016 (MWh)**



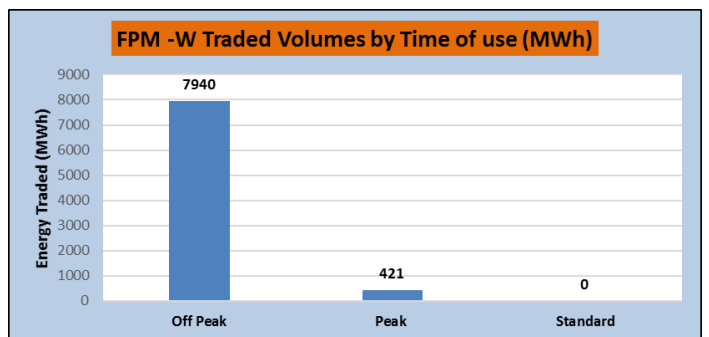
**Forward Physical Weekly Market (FPM-W)**

The total energy traded in FPM-W declined by **10.2% or 948MWh to 8,361MWh** in September 2016 when compared to August 2016 figure of **9,309 MWh**. The total volumes matched in the FPM Weekly market also increased by **7,118.7 MWh or 7.7% to 99,941.4 MWh** in September 2016 from **92,822.7 MWh** in August 2016.

**Fig 3.1 FPM Weekly Market: Daily Traded Volumes for September 2016 (MWh)**

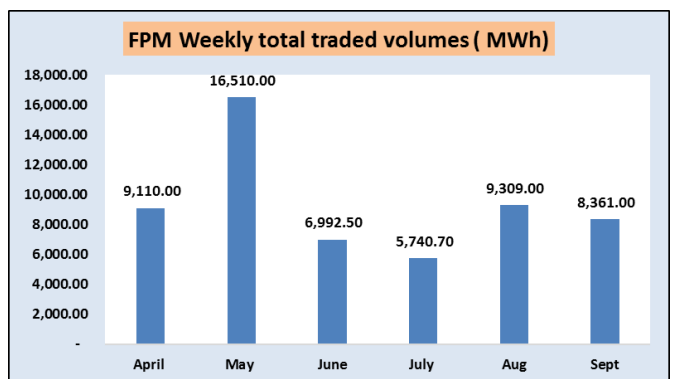


**Fig 3.2 FPM Weekly Market: Traded Volumes by time of use for August 2016 (MWh)**



As shown above, 95% of the total energy that was traded (6800 MWh) was for the Off Peak period and the remainder was for the Peak period (5%).

**Fig 3.2 FPM Weekly Market: Traded Volumes (April 2016 to September 2016)**



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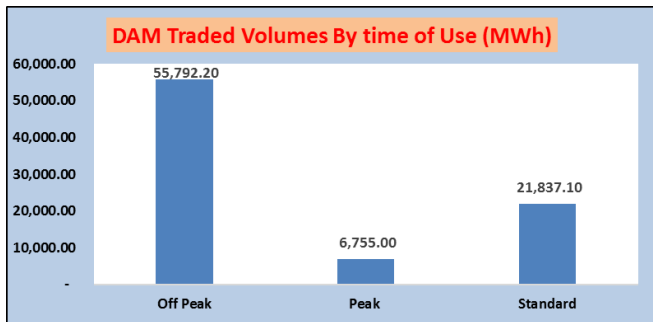


## Day Ahead Market (DAM)

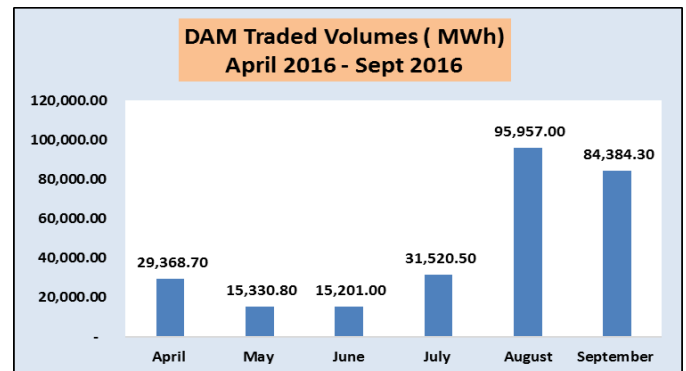
A total of **84,384.30 MWh** was traded in the Day Ahead Market (DAM) trading platform, registering a **12.1% decline** when compared to the August figure of **95,957 MWh**. There were more buy bids than sale offers received in September 2016 in the DAM trading platform. A total of 392,585MWh Sale offers and 497,810 MWh Buy bids were received in September 2016. There was a marginal increase of 13,497 MWh or 3.6% in Sale offers received in September 2016 when compared to August figure of **379,088 MWh**. There was also an increase of 86,038 MWh or 20.9% in buy bids received in September 2016 when compared to August 2016 figure of 411,772 MWh.

There was matching of bids in DAM for 30 days and 705 hours or 97.92% of the time during the month of September 2016. However, due to transmission constraints, trading occurred for 30 days and 702 hours or 97.5% of the time. In comparison, in August 2016 matching occurred for 31 days and 718 hours or 96.51% with trading occurring for 31 days and 709 hours or 95.3% of the time, this was a slight improvement.

**Fig 4.1: Traded volumes in DAM by time of use for September 2016**



**Fig 4.2: Monthly Volumes traded in DAM (MWh) to date in 2016-17**

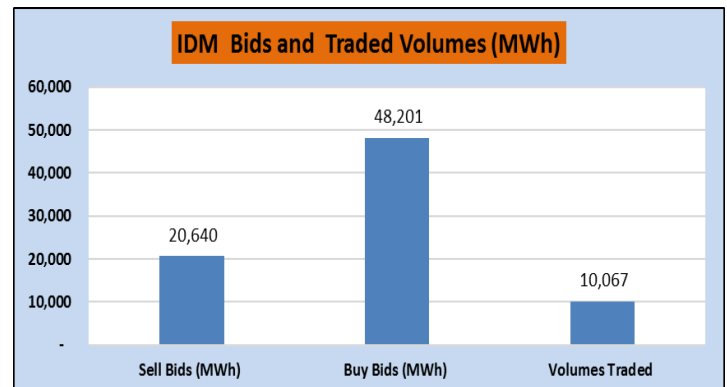


## Intra-day market (IDM)

Trade in the IDM in September 2016 was higher when compared to August 2016 figure of **10,067 MWh** which is an increase of **3,761 MWh or 59.6%** from the August volume of **6,306 MWh**.

Buy bids in IDM increased by 28,470 MWh or 144.3% from 19,731 MWh in August 2016 to 48,201 MWh in September 2016. Sale offers also increased by 11,828 MWh or 74.5% to 20,640 MWh in September 2016.

**Fig 5.1: IDM Bids and Traded Volumes for September 2016 (MWh)**

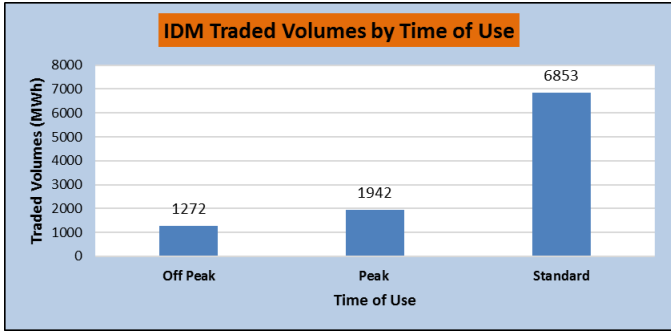


**Fig 5.2: IDM Traded Volumes by time of use for September 2016 (MWh)**



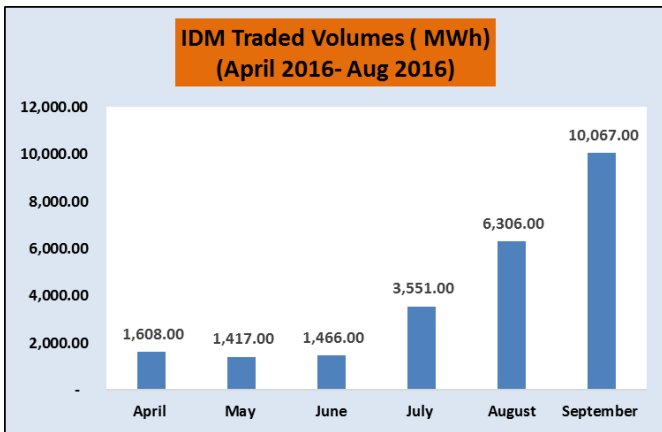
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As shown above, 68% of the energy traded in DAM in September 2016 was for the Standard period whilst the remainder was for the Peak (19%) and Off Peak (13%) periods.

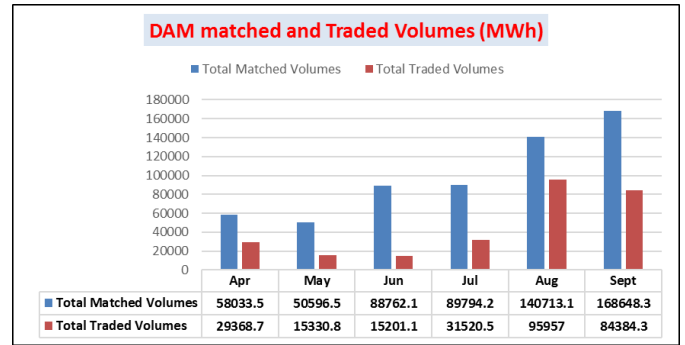
**Fig 5.3: IDM Traded Volumes to date for 2016-17 (MWh)**



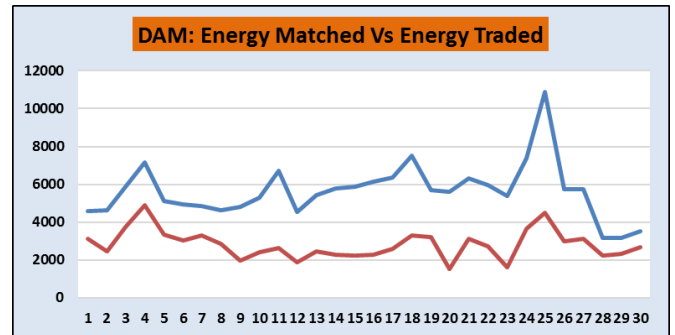
### Impact of Transmission Constraints

There was a decline on access to transmission capacity for the competitive markets in the month of September 2016 where **50%** of the matched energy in DAM were traded compared to August where 68% of the energy that was matched in DAM was traded. In September 2016, 168,648.3 MWh were matched in DAM and 84,384.3MWh were traded compared to August where 140,713 MWh was matched on the DAM trading platform and 95,957 MWh was traded.

**Fig 5.1 Impact of Transmission Constraints on DAM Trading for the month of September 2016.**



**Fig 5.2 Energy matched and energy traded in DAM Trading platform for the month of September 2016.**



As shown above there is significant differences between matched and traded volumes during the month of September 2016 as a result of increased transmission constraints for the competitive market.

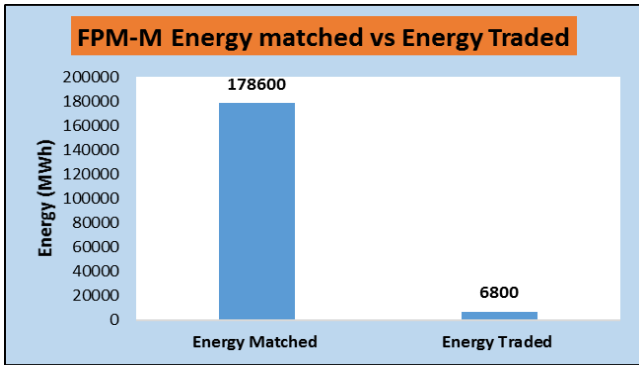
Energy matched but not traded in the FPM Monthly Market for the month of September 2016 was 171,800 MWh. During the month of September, 178,600 MWh had been matched, resulting in 96% of the matched energy failing to be traded. In August 84.88% of the total energy that was matched did not get traded.



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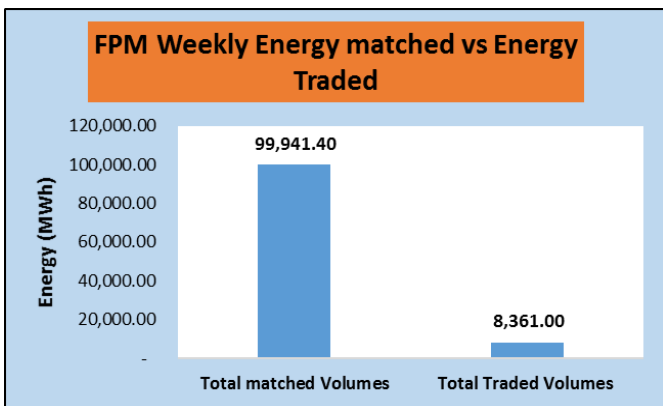


**Fig 5.3: Energy Matched and energy traded in FPM Monthly Trading platform for the month of September 2016.**

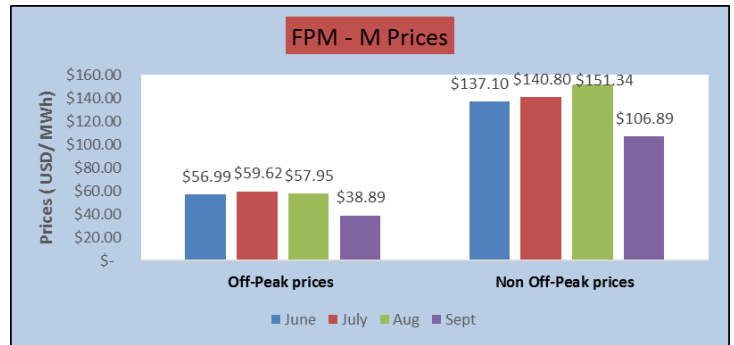


In the FPM Weekly market, 99,941.40 MWh was matched with only 8,361 MWh being traded in September 2016. Consequently, 91,580.4 MWh (91.6% of matched volumes) was not traded due to lack of transmission path.

**Fig 5.3: Energy Matched and energy traded in FPM Weekly Trading platform for the month of September 2016.**



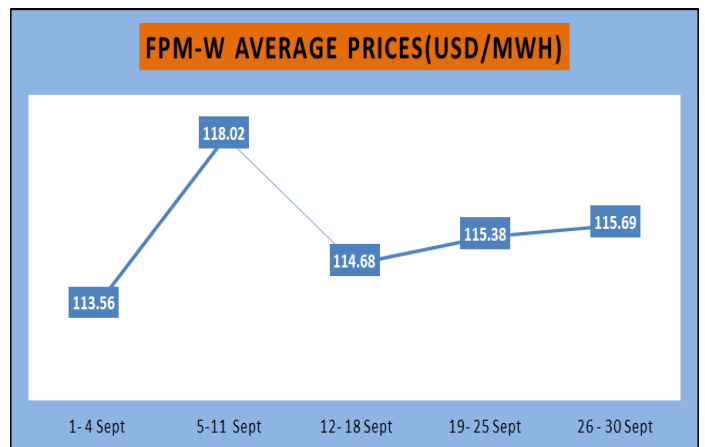
**Fig 6.1 FPM-M Market Clearing prices by time of Use for the month of September 2016.**



**FPM Weekly Prices**

In the week ahead market, the average market clearing price for the Peak period was slightly higher by **5.7% at 18.466USc/KWh** in September 2016 from the August average peak price of **17.472USc/KWh**. Standard period average prices marginally decreased from the August average prices of **11.201USc/KWh** to **10.830 USc/KWh**. The average Off-Peak price marginally increased by **15.8%** from **4.614 USc/KWh** to **5.343 USc/KWh**.

**Fig 6.2 FPM-W Average prices for the Month of September 2016.**



**Market Clearing Prices**

**FPM Monthly Prices**

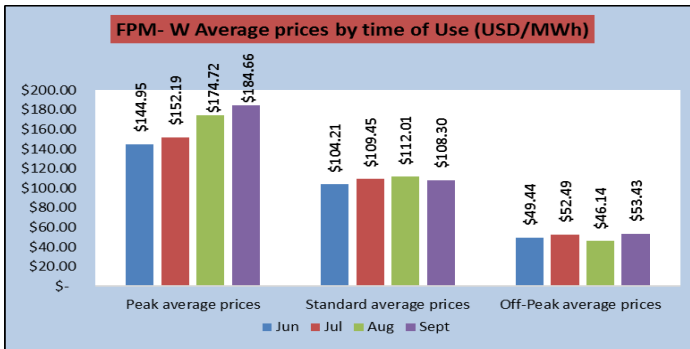
Non off-peak prices in the month ahead market declined by 29.4% from **15.134USc/KWh** in August 2016 to **10.689 USc/KWh** in September 2016. Off Peak prices marginally declined by **32.9%** from **5.795 USc/KWh** in August 2016 to **3.889 USc/KWh** in September 2016.



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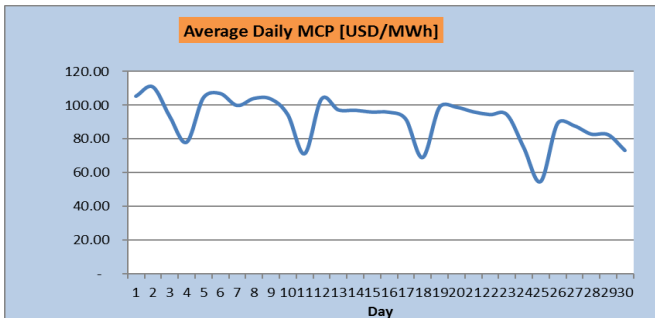
**Fig 6.3 FPM-W average prices by time of use for the month of September 2016.**



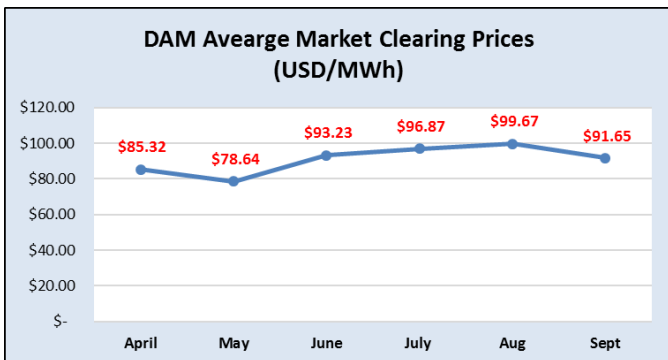
**Day Ahead Market**

The average monthly market clearing price (MCP) for the day ahead market (DAM) was slightly lower during the month of September 2016 at **9.165USc/KWh** when compared to the **9.967USc/KWh** recorded in August 2016. Below is a summary of the daily average MCPs for the month of September 2016.

**Fig 6.4 Daily Average MCP prices for the month of September 2016.**



**Fig 6.4 Daily Average MCP prices April 2016 to September 2016.**



**Revenue Performances**

A total of **USD 10,155,198.92** was exchanged on the DAM, IDM, FPM-W and FPM-M market during the month of September 2016 when compared to a total of **USD 10,496,190.38** exchanged in August 2016. The decline is mainly attributed to the decrease in traded volumes.



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