

# Southern African Power Pool

### MONTHLY REPORT

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#### Energising the region for economic develo

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#### **Meetings, Workshops and Conferences**

#### **Electro-Technical Standards Workshops**

From 10 to 13 January 2017 the African Electro-Technical Standardisation Commission (AFSEC) organized two workshops, running back-to back, in Nairobi, Kenya. The objective of the first workshop was to validate a database of electrotechnical standards that was designed and developed for AFSEC by a consultant. The objective of the second workshop was to build capacity of participants on key structures, procedures and projects of the IEC electrotechnical standards. The Executive Secretary of AFSEC, Mr. Paul Johnson, and the President of AFSEC, Mr. Claude Koutoua, highlighted that electric power pools in Africa are stakeholders of AFSEC because they use IEC electro-technical standards. Power pools were thus identified as potential affiliate members of AFSEC. Apart from SAPP, the Eastern Africa Power Pool (EAPP) attended the workshops.



Participants at the AFSEC Meeting in Nairobi, Kenya

## Forum on Electricity Market Development in West Africa and Launch of ICC for WAPP

A forum on electricity market development for West Africa was held on 16 January 2017 in Cotonou, Benin. The forum was attended by various stakeholders from West Africa Power Pool (WAPP) such as power utilities and other WAPP members, Energy Ministers from Benin, Nigeria and Chad, financiers, RTE from France and Southern African Power Pool (SAPP). The SAPP was invited to share its experiences on electricity market development and operations. Mr Musara Beta, SAPP Chief Market Analyst attended on behalf of the SAPP. The forum was followed up by the launch of the construction of the Information and Coordination Center (ICC) for WAPP that will be constructed at an estimated cost of EUR 30 million and will be supported by the European Union funding.

#### **Markets Sub-Committee Meeting**

The Markets Sub Committee held a meeting on 18-19 January 2017, in Johannesburg, South



Southern African Power Pool (SAPP)

24 Golden Stairs Road, P.O. Box EH52, Emerald Hill,
Harare, Zimbabwe,
Tel: +263-4-335517/335558/335468 Fax: +263-4-307023
Email: info@sapp.co.zwWebsite: www.sapp.co.zw



Africa. The main focus for the meetings was to discuss the long term market surveillance arrangements for SAPP and also to review the charges for losses incurred by wheelers in wheeling bilateral trades. The meeting came up with proposals that will be presented to the SAPP Management Committee meetings planned for 2 March 2017 in Bulawayo, Zimbabwe.

## Workshop on Legal and Financial Aspects of Energy Projects

The SAPP through financial support from the AfDB Infrastructure Consortium for Africa (ICA) department, held a five day workshop on Legal and Financial Aspects of Energy Projects and the role of power pools. The workshop was facilitated by Baker MacKenzie and representatives from International Finance Corporation (IFC) and was held at Baker Mckenzie premises in Johannesburg, South Africa on 29 January 2017 to the 3<sup>rd</sup> of February 2017. The workshop covered the following areas among others:

- Overview of the African Power sector
- Experiences on the challenges of developing IPPs in Africa
- Project Finance basics
- Components of a Power Purchase Agreement (PPA)

The workshop was attended by representatives from SAPP members that included, legal, financial and technical experts.

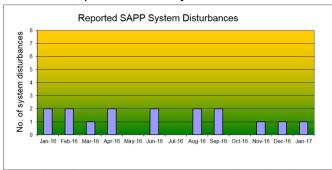


Participants at the ICA Workshop, Johannesburg, RSA

#### **System Operations**

#### **System Disturbances**

In the month of January 2017, only one SAPP system disturbance was reported. In adverse weather conditions the 400 kV South Africa - Botswana tie line tripped on distance protection zone 1 and earth fault. This event triggered power oscillations in the central corridor of the interconnected power system, leading to tripping of two more 132 kV lines in Botswana. The power oscillations were observed as far as Zambia but the major part of the transmission power network remained stable. Figure below gives a general outlook of reported SAPP system disturbances.



Reported SAPP System Disturbances



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Fel: +263-4-335517/335558/335468 Fax: +263-4-307023

Email: info@sapp.co.zwWebsite: www.sapp.co.zw



#### **Electricity Trading**

#### **Energy Traded**

Trading in the market was lower during the month of January 2017 when compared to December 2016. 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) decreased by 21.7% to 87,400.30 MWh in the month of January 2017, from the December 2016 figure of 111,596 MWh. Below is the share of volumes traded in DAM, IDM, FPM-M and FPM-W for the month of January 2017.



% Share of Traded Volumes in DAM, IDM, FPM-W and FPM-M for the month of January 2017.

#### **Market Clearing Prices**

#### **FPM Monthly Prices**

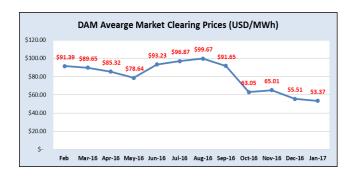
Non off-peak prices decreased by 4.4% from 10.701 USc/KWh in December 2016 to 10.229 USc/KWh in January 2017. Off Peak prices also marginally decreased by 0.5% from 3.688 USc/KWh in December 2016 to 3.669 USc/KWh in January 2017.

#### **FPM Weekly Prices**

The average price for the Peak period was lower by 12.5% at 10.406USc/KWh in January 2017 from the December 2016 average peak price of 11.89 USc/KWh. Standard period average prices marginally decreased from the December 2016 figure of 8.141 USc/KWh to 7.870 USc/KWh in January 2017. The average Off–Peak price also decreased by 14.8% from 4.394 USc/KWh in December 2016 to 3.742 USc/KWh in January 2017.

#### **Day Ahead Market**

The average monthly market clearing price (MCP) was slightly lower during the month of January 2017 at 5.337USc/KWh when compared to the 5.551 USc/KWh recorded in December 2016. Below is a summary of the daily average MCPs for the month of January 2017. What is also interesting to note is the general decrease in market clearing prices from September 2016. This is largely attributed to increased competition from the sellers side.



Daily Average MCP prices April 2016 to January 2017.

#### **Market Revenues**

A total of **USD 5,222,519.42** was exchanged on the DAM, IDM, FPM-W and FPM-M market during the month of January 2017 when compared to a total of **USD 7,401,145.31** exchanged in December 2016. The decrease is mainly attributed to the decrease in traded volumes and the general decrease in market clearing prices.





#### **Environmental Corner**

## Climate Change Resilient Study for the SAPP

The ESC developed Terms of Reference for a study on Vulnerability, Impacts of Climate Change and Adaptation options for the SAPP utility members. The study proposal is aimed at assessing the impacts of weather changes, climate variability, extreme weather events and long term climate change impacts on the SAPP utilities. The proposal has been submitted to the AfDB for funding consideration as a climate resilient project under the Green Fund.

## Climate Change Resilient Project Proposals at utilities

The AfDB requested the SAPP members to submit Climate Resilient project concepts for funding under the Green Fund. At least 3 utilities plus the Vulnerability, Impacts of Climate Change and Adaptation options for the SAPP study proposal for SAPP were submitted to the AfDB by 13 January, 2017 (Deadline for submission of project concepts)

## **Update for the SAPP Standardized Baseline for CDM Projects**

In 2011, the SAPP CC engaged GFA Consulting Group of Germany to develop a Standardized Baseline (SB) for the interconnected electricity system of Southern Africa. This Standardized Baseline determines the CO2 emission intensity of the electricity system. The SB was signed by nine countries, namely South Africa, Botswana, Zimbabwe, Zambia. Namibia. Democratic Republic of Congo, Mozambique, Swaziland and Lesotho. This SB was submitted to and approved by United Nations Framework Convention on Climate Change (UNFCCC). This applicable to all the nine inter-connected SAPP countries.

#### **Upcoming Events**

DATE	EVENT
27 Feb - 3 March	48 <sup>th</sup> SAPP Meetings, <b>Bulawayo, Zimbabwe</b>
2017	
28 - 29	Power and Electricity World
March	Africa, Johannesburg, South
2017	Africa
7-9 March	Traders SAPP-MTP Certification
2017	Training, Johannesburg, RSA
20 - 21	Inception Workshop to Develop
March	Regional Action Plan to
2017	Leapfrog to Efficient Lighting,
	Appliances and Equipment
22-23	SAPP MANCO Strategic
March	Workshop & 42 <sup>nd</sup> SAPP Executive
2017	Meetings, Maseru, Lesotho
14 – 15	2017 Interpower Games
April 2017	Preparatory Meeting, Windhoek,
	Namibia





