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Some members of the SAPP MSC-IT Task Team at the meeting.

Africa Energy Forum

The Africa Energy Forum was held in Copenhagen, Denmark from 6 to 9 June 2017 and was attended by regulators, government representatives and power utilities executives. The SAPP presented the status of the power generation and transmission projects and the progress on the competitive Day Ahead Market.

System Operations

System Disturbances

In the month of June 2017, three (3) SAPP system disturbances were reported. In the first disturbance, the two HVDC transmission lines from Mozambique to South Africa, carrying a total load of 1073 MW, tripped. Power system frequency fell from 50.081 Hz to 49.496 Hz. This triggered power oscillations in the central corridor encompassing Botswana, Zimbabwe and Zambia. The Botswana - Zimbabwe interconnector tripped and one generator (98 MW) tripped in Zimbabwe because of the power oscillations. The frequency was recovered to normal operating band by the customer demand

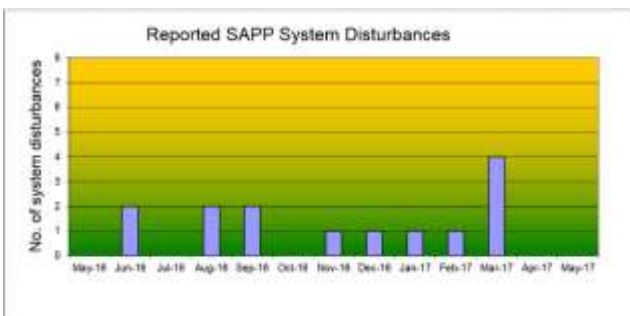
Meetings, Workshops and Conferences

SAPP Markets IT Task Team Meeting

A Task Team (MSC-IT Task Team) was formed to Investigate and give a professional advice on cloud hosting for the MTP system to the Markets Sub Committee. The First meeting was held on the 1st and 2nd of June 2017 in Johannesburg , South Africa. A full report on the findings will be presented in the next SAPP Meetings.



response and pump-storage power plants in South Africa. In the second disturbance, one generator tripped in South Africa while generating 551 MW. Consequently, the power system frequency fell from 49.80 Hz to 49.47Hz. The frequency was recovered to normal operating band by temporal load shedding and pump-storage power plants in South Africa. In the last disturbance, the 400 kV bus zone protection operated at Phokoje Substation in Botswana due to a faulty 400 kV line isolator. All equipment connected this bus bar including the 400 kV Botswana - Zimbabwe tie line tripped. The northern island had power supply deficit; therefore frequency fell to 48.06 Hz and automatic under-frequency load shedding operated in Zimbabwe and Zambia, taking off a total load of about 420 MW. Refer to figure below for the general outlook of reported SAPP system disturbances.



Reported SAPP System Disturbances

Equipment Outage

In the month In June 2017, some circuits were taken out of service for various reasons. The 400 kV Botswana - Zimbabwe tie line was out on 27 June 2017 for repairing a faulty isolator. The 66 kV Zambia - Namibia tie line was out for a few days from 29 June for replacement of wooden poles. The 400 kV South Africa - Botswana was out for a few hours on 11 June 2017 for line inspection. In Zambia, 2 key transmission lines feeding the main load centre in the Copperbelt and wheeling power to DR Congo were out on 10

and 11 June for installation of current transformers.

Electricity Trading

Energy Traded

Trading in the market was slightly lower during the month of June 2017 when compared to May 2017. 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 **3.5% to 126,795.9 MWh** in the month of June 2017, from the May 2017 figure of 131,363.4MWh. Below is the overview of volumes traded in DAM, IDM, FPM-M and FPM-W for the month of June 2017.



Traded Volumes in MWh in DAM, IDM, FPM-W and FPM-M for the month of June 2017.

Market Clearing Prices

FPM Monthly Prices

Non off-peak prices increased by 18.3% from 6.283USc/KWh in May 2017 to 7.432 USc/KWh in June 2017. Off Peak prices also marginally increased by 20.2% from 3.707 USc/KWh in May 2017 to 4.456 USc/KWh in June 2017.

FPM Weekly Prices

The average price for the Peak period was higher by 47% at 11.10USc/KWh in June 2017 from the May average peak price of 7.551USc/KWh. Standard period average prices increased from



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the May 2017 average prices of 4.444 USc/KWh to 6.448 USc/KWh in June 2017. The average Off–Peak price also increased by 29.6% from 2.317USc/KWh in May 2017 to 3.003USc/KWh in June 2017.

Day Ahead Market

The monthly average Day Ahead market clearing price (MCP) was slightly higher during the month of June 2017 at 5.531USc/KWh when compared to the 4.964USc/KWh recorded in May 2017. Below is a summary of the daily average MCPs for the month of June 2017.



Daily Average MCP prices for the month of June 2017.

Market Revenues

A total of **USD 7,744,117.48** was exchanged on the DAM, IDM, FPM-W and FPM-M market during the month of June 2017 when compared to a total of **USD 7,971,143.56** exchanged in May 2017. The decline is mainly attributed to the changes in traded volumes.

Update on SAPP Projects and Activities

SAPP Project Development Readiness Assessments

The SAPP Project Development Readiness Assessment (PDRA) team conducted training sessions of the use of the PDRA software. During the month training was completed for Swaziland

Electricity Company, ZESCO and Copper Belt Energy Corporation of Zambia.



ZESCO, CEC and SAPP Coordination Centre on PDRA Mission in Zambia.

SAPP Pool Plan Study

The SAPP Planning and Environmental sub committees attended the SAPP Pool Plan Workshop in Johannesburg, South Africa where the preliminary results of the study were presented. Comments received will be incorporated. The final report is expected at the end of August 2017.

SAPP EAPP Interconnection Impact Study

The SAPP EAPP interconnection Impact Study kick off meeting was held with the consultant. This was followed by an inception planning workshop. The meetings were attended by representatives from SAPP and EAPP.

SAPP Transmission Pricing Task Team Meeting

The SAPP Transmission Pricing Task Team met in Harare, Zimbabwe to develop various scenarios to be used for transmission pricing modelling.



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Environmental Corner

Environmental Corner

Training on GIS and RIAM Training

The Environmental Sub-Committee (ESC) Members received two-day training on Geographic Information Systems (GIS) and Rapid Impact Assessment Matrix (RIAM) as part of capacity building component under the SAPP Pool Plan update study. The tools give a high-level overview of where projects can be developed in the region without compromising the environment.

SAPP Grid Emission Factor

The SAPP GEF was successfully validated by TUEV. Some countries signed the GEF while some indicated to the UNFCCC office that they are ready to sign. However, Department of Environment (DoE) from RSA, raised some questions on statistics/figures on Medupi and Dedisa which are currently being addressed.

SAPP Climate Change Mitigation and Adaptation Strategy

The Climate Change Mitigation and Adaptation Strategy for the SAPP was finalised and posted on the SAPP website. This is now available on www.sapp.co.zw

Upcoming Events

DATE	EVENT
4 – 5 July 2017	Projects Peer Review, Windhoek, Namibia
5 – 7 July 2017	SAPP Legal Working Group Meeting, Johannesburg, South Africa
6 July 2017	SAPP Finance Working Group, Harare, Zimbabwe
9 -14 July 2017	SADC Investors Conference and Energy Ministers Meetings, Manzini, Swaziland
18 – 20 July 2017	POWER-GEN & DistribuTECH Africa 2017, Johannesburg, South Africa
20 – 21 July 2017	MSC IT Task Team Meeting, Johannesburg, South Africa
25 – 26 July 2017	DSM Working Group Meeting, Maputo, Mozambique
1 – 2 Aug 2017	CPWG Meeting, Windhoek, Namibia
22 - 24 August 2017	SAPP-MTP Training for Controllers, South Africa
4 – 8 Sept 2017	SAPP Management Committee Meetings, South Africa
October 2017	SAPP Executive Committee Meeting, Malawi
November 2017	SAPP Human Resources Working Group, Harare, Zimbabwe



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