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Meetings, Workshops and Conferences

SAPP Finance Working Group Meeting

The SAPP Finance Working Group Meeting met on 30 January 2019 at the SAPP CC Offices in Harare to finalise the review of the SAPP CC and SAPP PAU budgets. They also started the review of the SAPP Finance policies and procedures.

Special OSC Meeting on System Disturbances

From September 2018 to December 2018 the SAPP interconnected network experienced numerous power system disturbances characterised by power oscillations especially in the central corridor (Botswana, Zimbabwe, Zambia). These disturbances interrupted energy interchange among SAPP members but also endangered performance of power equipment. The SAPP Operating Sub-Committee (OSC) met in Johannesburg, South Africa, on 14 January 2019 and discussed the root causes of these disturbances. The root causes included faulty converter bridges and faulty auxiliary systems. Of great concern was the undamped power oscillations triggered by these faults. The OSC assessed the status of active devices including Static Var Compensators (SVCs) and Power System Stabilisers (PSSs) on generators and reported on major changes in the power network. The sub-committee then resolved to investigate the disturbances in detail through a small team of experts.



Joint PSC, MSC and OSC Meeting on Transmission Pricing

The SAPP Planning, Markets and Operating sub committees met in Johannesburg, South Africa to discuss the progress on the SAPP Transmission Pricing Model validation.

Meeting to Review SAPP Agreement Between Operating Members

The SAPP Legal Working Group met with the SAPP Sub Committees to discuss the strategy of reviewing the SAPP Agreement between Operating Members. All the sub committees will provide a resource person for the review.

Handling Energy Imbalance and Outage Coordination

On 15 January 2019 the SAPP Markets and Operating Sub-Committees met jointly in Johannesburg, South Africa. They discussed the proposed changes of the current methodology for handling energy imbalances among member utilities. They also discussed ways of improving coordination of power equipment outages so as to minimise interruption of electricity trading.

Power Supply Emergency and Blackstart Preparedness

The SAPP Power Supply Emergency and Blackstart Preparedness Working group met in Johannesburg from 17 to 18 January 2019. The working group discussed power supply restoration plans both at utility and at regional levels. These will be updated by mid-year.

The working group also discussed communication protocols at utility and regional levels. Members went back to their utilities to carry out and report on power supply risks and required blackout defence barriers.



Some members of the Power Supply Emergency and Blackstart Working Group at the meeting in Johannesburg

System Planning

Transmission Pricing Modelling

The SAPP Transmission Pricing Task Team continued to work on the model validation in preparation for presentation to the joint SAPP Planning, Markets and Operating sub committees.

SAPP Power Transfer Limits Workshop

From 29 to 31 January 2019 the SAPP held a second workshop for determining power transfer limits in the Zimbabwe and Zambia Control Areas. The workshop was hosted by ZESCO in Lusaka, Zambia. The main activity of the workshop was transient stability studies. Transfer limits were then determined



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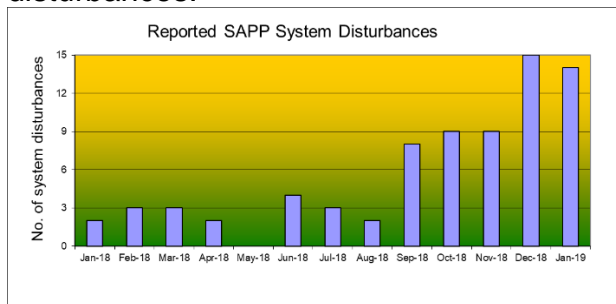


on interconnectors among Zimbabwe, Zambia, and DR Congo, considering system stability in the event of a contingency.

System Operations

System Disturbances

In the month of January 2019, fourteen (14) SAPP system disturbances were reported. In the first two, power outputs of about 1280 MW and 950 MW were lost from the HVDC link between Mozambique and South Africa due to faulty converters on different days. In the next two, the 220 kV and the 400 kV Botswana - Zimbabwe interconnectors tripped due to adverse weather conditions also on different days. Nine system disturbances were initiated by loss of load in the DR Congo network, resulting in power oscillations and voltage excursions, especially in DR Congo and Zambia. In the last one, power system frequency dropped to 49.50 Hz when about 650 MW of generation tripped at a major power station in Zambia due to a fault. Refer to figure below for an outlook of reported SAPP system disturbances.

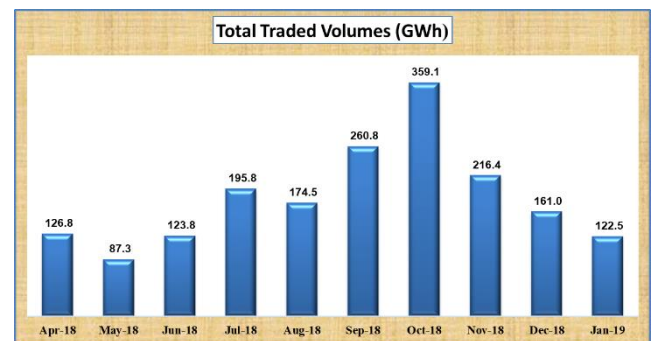


Electricity Trading

Energy Traded

Trading in the market was significantly lower during the month of January 2019 when

compared to December 2018. 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) decreased by 23.9% to **122.5GWh** in the month of January 2019, from the December 2018 volume of **161.0GWh**. The January 2019 traded volume was marginally lower by 45.5% when compared to January 2018 in which traded volumes were 224.9 GWh.



Market Clearing Prices

FPM Monthly Prices

Non-off-peak prices increased by 54.2% from 7.USc/KWh in December 2018 to 10.9USc/KWh in January 2019. Off Peak prices decreased by 9.3% from 2.7USc/KWh in December 2018 to 2.4USc/KWh in January 2019.

FPM Weekly Prices

The average price for the Peak period was higher by 8.1% at 13.8USc/KWh in January 2019 from the December 2018 figure of 12.7USc/KWh. Standard period average prices decreased from the December 2018 figure of 5.7USc/KWh to 5.2USc/KWh in January 2019. The average Off-Peak price decreased from 2.7USc/KWh in December 2018 to 2.5USc/KWh in January 2019.

Day Ahead Market

The monthly average DAM market clearing price (MCP) was lower during the month of January 2019 at 4.3USc/KWh when compared to 5.0USc/KWh recorded in December 2018.



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Intra Day Ahead Market (IDM)

The average peak period price for the IDM for the month of January 2019 was 4.7USc/KWh from the December 2018 average of 8.7USc/KWh. The average Off-Peak period price decreased from 3.3USc/KWh in December 2018 to 2.1USc/KWh in January 2019. There were no traded volumes for the standard period.

Market Revenues

A total of USD 5.1 million was exchanged on the market during the month of January 2019 when compared to a total of USD 6.7million exchanged in December 2018. The change is mainly attributed to reduced traded volumes.

Update on SAPP Projects

Angola – Namibia Interconnector Project

A project meeting was held on the 14th of November 2018. A follow up meeting was held on the 15th December 2018 in which the technical report was signed.

Botswana – South Africa (BOSA) Interconnector Project

The Business Case Studies are in progress and the Final Network Analysis Report will be delivered in the next reporting period. The Environmental Impact Assessment Report for the Botswana portion of the line is under review by the Authorities.

Kolwezi - Solwezi Interconnector Project

The Preliminary Design Report was approved on the 13th December 2018 with all parties in

agreement to proceed with the Option 8 routing.

Luapula Hydro-Electric Power Scheme Project

The Inception Report was submitted in English, including all comments from the Stakeholders were addressed.

A workshop was held on the 04th of December 2018. It was requested that the Environmental and Technical Consultants agree on the multi criteria analysis (MCA), and the decision-making should be based on the agreement between SAPP and the Utilities before the MCA Workshop. The date for this workshop is dependant on development and approval of these stakeholders prior to the workshop.

Mozambique - Zambia Interconnector Project

The Final Preliminary Design Report was approved. The coordination activities of both the Lidar survey and Geotechnical investigations are ongoing. Financial Modelling and Economic Analysis activities are in progress.

The Final Scoping Report and the Draft Terms of Reference for specialist studies were submitted to the Zambian and Mozambican Environmental Management Agencies.

Mozambique - Zimbabwe – South Africa Interconnector Project

MOZI:

SAPP has assisted EDM and ZESA to prepare documents in support of application



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for funding from the DBSA, which had to be renewed due to project implementation.

ZISA:

EDM is the lead utility and the project has requested for SAPP's continued involvement and support.

ZIZABONA Interconnector Project

The Final Technical, Financial and Economic Feasibility Reports have been completed and approved by the sponsors for Component A, B and C of the project. Current project activities include the preparation of Tender documentation for procurement, Financing, Legal and reconfirming and updating Environmental Studies.

Environmental Corner

Environment

SAPP Climate Change Adaption and Mitigation Strategy

The SAPP Climate Change adaption and mitigation strategy is being updated in line with the Conference of Parties (COP)24 Agreements.

Upcoming Events

DATE	EVENT
3 – 5 Feb 2019	Solar Knowledge Morocco, Morocco
19 – 20 Feb 2019	Africa Energy Indaba, Johannesburg, South Africa

20 – 21 Feb 2019	Crime Prevention Working Group Meeting, Luanda, Angola
21 – 22 Feb 2019	Integrated Demand Management Working Group Meeting, Manzini, Eswatini
26 – 28 Feb 2019	52 nd SAPP Management Committee Meetings, Namibia
6 -8 Mar 2019	Legal Working Group Meeting, Maseru, Lesotho
12 – 14 Mar 2019	Traders Training on MTP – Windhoek, Namibia
19 - 20 Mar 2019	SAPP EXCO Meetings, Harare, Zimbabwe
25 - 28 Mar 2019	SADC Officials Meetings, South Africa
26 - 27 Mar 2019	Power Electricity World Africa 2019, Johannesburg, South Africa
26 – 27 Mar 2019	Solar Show Africa, Johannesburg, South Africa
16 April 2019	SADC ETG, TBA
13 -16 May 2019	PowerGen Africa/Africa Utility Week, Cape Town, South Africa
30 May 2019	SAPP CC Board Meeting, Harare, Zimbabwe
10 -14 June 2019	Africa Energy Forum, Lisbon, Portugal



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