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## Meetings, Workshops and Conferences

### SAPP Coordination Centre Board Meeting

The 46<sup>th</sup> SAPP Coordination Centre Board meeting was held virtually on 2 March 2021. The meeting looked at the SAPP Strategic Plan 2021-2030 and the budget for the next 3 years among other issues.

### SAPP Management Committee Meeting

The 56<sup>th</sup> SAPP Management Committee meeting was held virtually on 4 March 2021.

Several areas were discussed related to Planning, Projects Coordination, Operations, Markets and Environment.

### SAPP Executive Committee Meeting

The 50<sup>th</sup> SAPP Executive Committee Meeting was held virtually on 24 March 2021. The meeting discussed among other things the details from the Sub-Committee Reports, the SAPP Strategic Plan 2021 to 2030 and the SAPP budget for the next 3 years.

### Integrated Resource Planning for Decision Makers Workshop

The SADC Centre for Renewable Energy and Energy Efficiency (SACREEE) in collaboration with SAPP organised a virtual workshop on Integrated Resource Planning for Decision Makers. The workshop was attended by utility and government representatives.

### System Planning

#### Review of SAPP Load Forecasting Methodology

The draft report on the SAPP Load Forecasting methodology was issued on 24 March 2021 and circulated to utilities for comments.

#### Setting up SAPP Data Management System

Expression of interests were issued for the setting up of a Data Management System at SAPP.



## Update on SAPP Projects

### Baynes Hydro-Power Plant Project

#### ESIA Studies:

In the month under review, most of the project work done has been brainstorming and forming of a coordinated approach to commencement and aligned implementation of the Technical and ESIA studies.

- For the coordination of technical and ESIA studies, the draft technical and ESIA TORs have been aligned to follow the criteria generally used in the selection of preferred transmission corridors along which the studies shall then be focused.
- A draft ESIA workplan incorporating milestones from the technical TORs has been finalised for review and approval.

### Kolwezi – Solwezi Interconnector Project

#### ESIA Studies:

The Final draft Resettlement Compensation and Action Plan (RCAP) report for the DR Congo has been finalised and submitted to SNEL, ZESCO and SAPP for review. The report has been submitted in two languages, English and French.

The project highlights for the month of March 2021 include the following:

- Gender and health analysis has been completed and integrated in the draft ESIA report.
- The final ESIA for the DR Congo has been finalised and is ready for submission to the environmental authority ACE.
- The final RCAP report for Zambia has been finalised and ready for submission to the environmental authority ZEMA.
- Capacity building activities have been implemented and successfully completed

through on-the-job training of ZESCO and SNEL personnel and seminary training of ZESCO, SNEL and SAPP environmental teams in ESIA best practices.

### Mozambique – Zambia Interconnector Project

#### Technical Studies:

EDM, ZESCO and SAPP have progressed in reviewing the interim feasibility study report submitted by AF-Consult Switzerland Limited on 2 February 2021. A harmonisation workshop to consolidate the interim report has been planned, however, actual dates are yet to be agreed upon.

- (a) The following is progress on deliverables:
  - Geotechnical investigations and study of the transmission line route and PLS-CADD modeling completed.
  - Geotechnical investigation field work finished in Zambia and laboratory work started.
  - Geotechnical investigations and field work in Mozambique on going, to be completed end of April 2021.
  - Network, financial and economic analysis Interim report has been drafted and shared with project sponsors for review.
- (b) The tax exception request by SAPP and ZESCO on all project related activities on the Zambian section has not yet been granted.
- (c) AF-Consult has requested for time extension of the contract validity period due to:
  - Delays in completing geotechnical studies due to bad weather and late granting of access permits.
  - Changes in input parameters necessary for network modeling and analysis.



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## ESIA Studies:

- (a) EDM, ZESCO, SAPP, AfDB and the WB received the Environmental Impact study draft report shared by WSP.
- (b) Public Disclosures in Zambia: The draft implementation plan for the public meetings in Zambia has been finalised.

## Zambia – Tanzania Interconnector Project

### Technical Studies:

Feasibility study activities intensified in the period under review.

- WSP has finalised the draft Overhead Transmission Line Design report and submitted to ZESCO and SAPP for review and approval. A workshop to harmonise and consolidate the draft report is planned for April 2021.
- Draft geotechnical investigation results complete with a working PLS-CADD model files for the Pensulo-Mpika corridor, Mpika-Kasama corridor and Kasama-Nakonde corridor has been submitted to ZESCO for review and approval.
- WSP has progressed well in the development of Lot 1 Tender specifications for substations and overhead lines. Draft results will be submitted for review and approval to ZESCO and SAPP by early April 2021.

### Regional Transmission Infrastructure Financing Facility (RTIFF)

The consultant made a presentation to the 50<sup>th</sup> SAPP Executive Committee meeting held on the 24<sup>th</sup> of March 2021. The consultant provided an outline of the RTIFF Blueprint. The document focusses on the proposed institutional form for the facility and sets out several key considerations for discussions including potential forms,

structure, and considerations on who the most likely partner could be.

The SAPP Executive Committee members appreciated the progress made on the project. However, they requested structured engagements with utilities as part of the next phase, on specific issues associated with RTIFF through the creation of a RTIFF Oversight Task Team which was expected to be operational by end of April 2021.

### System Operations

#### SAPP System Disturbances

In the month of March 2021, thirteen (13) SAPP system disturbances were reported. This sharp rise was attributed to the fact that the interconnected power system was split between Botswana and Zimbabwe for the most part of the month, from 08 to 29 March 2021. In the first disturbance, the 400 kV South Africa - Botswana interconnector tripped due to arcing of an isolator on the Botswana end. The three 132 kV South Africa - Botswana lines tripped on overload, resulting in a major power outage in Botswana. This also led to a permanent fault on the 400 kV line reactor in Zimbabwe and on the 400 kV line isolator in Botswana on the interconnector. Subsequently, the interconnected power system was left split in the central corridor for repair works.

In the second disturbance, a 330 kV bus bar faulted in Zambia due to lightning. This caused voltage and power fluctuations and loss of loads in Zambia.

Four low-frequency incidents were reported due to loss of generation in South Africa. Also, three high-frequency incidents were reported due to unplanned stoppage from pumping of pumped-storage generators in South Africa and, for the third incident, due to loss of load in DR Congo. The power



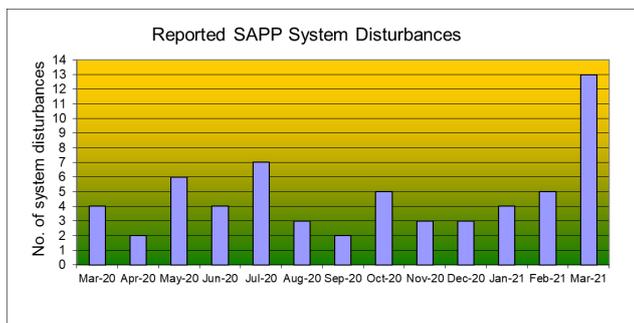
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frequency easily slid outside normal deadband because the interconnected power system was split and inertia was reduced in the two islands.

Then, in other disturbances, an HVDC line fault in DR Congo led to blocking of the HVDC converters, tripping of the 220 kV Zambia - DR Congo interconnectors, tripping of loads in Zambia and DR Congo, and, subsequently, total collapse of the DR Congo southern network.

The 400 kV South Africa - Botswana interconnector tripped on earth fault twice: firstly while the interconnected power system was split; secondly while the interconnected power system was back in normal synchronised state. In the second tripping, the 400 kV Botswana - Zimbabwe interconnector did not inter-trip and so the circuit was left out of service for urgent protection system maintenance. Lastly, while the 400 kV Matimba - Phokoje interconnector was out of service for protection system tests, the three South Africa – Botswana interconnectors tripped on overload causing a major power interruption in Botswana.



## Electricity Trading

### Traded Volumes

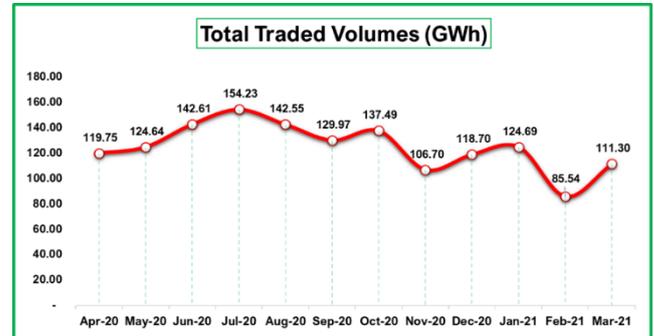
Trading on the market was higher during the month of March 2021 when compared to February 2021. Total traded volumes on the Day Ahead Market (DAM), Intra-Day Market



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(IDM), Forward Physical Monthly Market (FPM-M) and Forward Physical Weekly Market (FPM-W) Increased by 30% to 111.30 GWh in the month of March 2021, from the February 2021 volume of 85.54 GWh.



Monthly Traded Volumes (GWh) in DAM, IDM, FPM-W and FPM-M (April 2020 to March 2021)

## Market Energy Prices

### FPM Monthly Prices

The March 2021 market clearing price for the non-off-peak period was 10 USc/kWh, the same as the February 2021 figure. The price for the off-peak period increased from the February 2021 figure of 4.8 USc/kWh to 5.0 USc/kWh in March 2021.

### FPM Weekly Prices

The average market clearing price for the peak period was higher by 25% at 16.2 USc/kWh in March 2021 from the February 2021 figure of 13.0 USc/kWh. Standard period average market clearing prices decreased from the February 2021 figure of 8.2 USc/kWh to 7.4 USc/kWh in March 2021. The average off-peak market clearing price decreased from 4.9 USc/kWh in February 2021 to 4.4 USc/kWh in March 2021.

### Day Ahead Market

The monthly average DAM market clearing price (MCP) was lower by 28% during the month of March 2021 at 6.1 USc/kWh when

compared to 8.5 USc/kWh recorded in February 2021.

### *Intra Day Ahead Market (IDM)*

The average IDM price for the peak period for the month of March 2021 was 8.0 USc/kWh, down from the February 2021 figure of 8.8 USc/kWh. The average IDM price for the standard period decreased to 5.4 USc/kWh in March 2021 from the February 2021 figure of 6.5 USc/kWh. The average off-peak period price recorded for March 2021 was 4.0 USc/kWh, up from the February 2021 figure of 3.4 USc/kWh.

### **Market Revenues**

A total of USD 7.24 million was exchanged on the competitive market during the month of March 2021 when compared to USD 6.41 million exchanged in February 2021. The change is mainly attributed to changes in traded volumes. USD 6.93 million was exchanged on the competitive market during the same month of March in 2020.

### **Environmental Corner**

#### **SADC PCB Elimination Project**

### *Monthly Project Meeting*

The Project Coordinator convened meetings for the participating countries focal persons on the Project, on 31<sup>st</sup> March 2021, to review the status execution of activities. Major areas of discussions included the following:

- The Disposal contract for PCBs was nearing finalization and confirmation was sought from utilities on the ability to provide forklifts, cranes and trucks and personnel for the duration of the collection in the respective countries. Further, the Contractor would need to sign an MoU with the Utilities as the major owners of equipment to enforce commitment of roles to be taken by the utilities.

- Countries were requested to confirm the current contaminated equipment databases specifically confirming quantities and locations of those that are still available for disposal or De-chlorination this year and in 2022.
- Assessment of technical assistance needs in the project for incorporation in the new TORs for consultants. This could be in any part of the project where challenges are faced, and assistance is required.
- Deadline for outstanding requests for temporary storage sheds (must be completed by August 2021) and other needs, was set at the last quarter of 2021. A motivation is to be provided for the needs stating among others, the number of contaminated equipment and/or oil drums, lack of enclosure and security challenges.
- The following Project key milestones should be completed: A. Regulations development; B. Conclusion of outstanding inventory; C. Risk Communication (awareness); and D. Progress monthly reports.

### *United for Efficiency*

Also brought to the attention of the Meeting was the United for Efficiency (U4E), a global program which is assessing the efficiency of Energy production in all countries. A consultant at UNEP is covering among others some of the countries participating in the PCB project and will be holding meetings with all the countries as part of the assessment exercise. Technical personnel or electricity supply managers are requested to be incorporated in these meetings.

### *SAPP/Africa Institute Memorandum of Understanding*

The SAPP Management Committee, in its sitting of 4<sup>th</sup> March 2021, approved the



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signing of the Memorandum of Understanding (MoU) between the SAPP and the Africa Institute. Specifically, this MoU shall focus on Capacity Building and Risk communication and development of Standard Operating Procedures (SOPs) for maintenance of contaminated transformers to be used by utilities under the PCB Elimination Project.

### 6th Nile Basin Development Forum

The 6<sup>th</sup> Nile Basin Development Forum (NBDF) hosted by Ethiopia, will be focusing on assessing the Nile Basin Initiative (NBI) Member States have been implementing water resources investments at a speed and scale commensurate with the growing demand for food, water and energy across the Basin. Given the significant shortfall in meeting these demands, the need to re-examine and overhaul as needed, the approach and practice is urgent. The NBDF will be running a series of webinars from March to April 2021. The SAPP, at the invitation of the NBDF, participated in the 6<sup>th</sup> NBDF March webinars which included the following areas of discussion:

- Sustainable use of wetlands and climate change impacts on the Nile Basin.
- Environmental flows and water allocation planning.
- Challenges and opportunities facing transboundary surface/ground water investments and use in the Nile Basin and new approaches for improved management of transboundary surface/ground water.
- Economic valuation of ecosystem services.
- Landscape management of wetland water related ecosystems and biodiversity.
- Climate services for infrastructure investments and the role of the NBI for preparing bankable climate resilient

infrastructure projects for the sustainable use of the Nile water resources.

- Rainfall, drought, streamflow and flood forecasting over the Nile Basin.
- Drought monitoring and forecasting over the Nile Basin.
- Sustainable watershed management: best practices and case studies from the Nile Basin.
- The Role and Significance of Coordinated Operation of Water Storage Reservoirs.
- Multi-layer Transboundary Water Cooperation (Legal/Institutional): State of Affairs 2020.
- Developing Approaches and Options for Reservoir Coordination in the Nile Basin.
- Tools, Approaches, and Technologies to Understand and Enhance a State of Water Productivity to Gain in Food and Nutrition Security.

The discussions have thus far exemplified the importance of stakeholder engagement, coordinated and sustainable approach in infrastructure development and benefit sharing, through a well-structured legal and institutional framework.

### Earth Hour 2021

Earth Hour 2021 was a special global event this year, having been a “**Virtual Spotlight**” because of the COVID-19 pandemic. The Earth Hour 2021 was commemorated under the theme “Climate Change to Save Earth,” urging people to unite to act on environmental issues to protect our planet.

Over the years, the lights-off moment saw entire streets, buildings, landmarks, and city skylines go dark - an unmissable sight that drew public attention to nature loss and the climate crisis. This year - amidst the current global circumstances - in addition to switching off lights, online platforms played a critical



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role in raising awareness and creating the same unmissable sight, so that the world sees the planet, the issues we face as mankind, and our place within it, in a new light.

Current socio-economic models are leading to the massive destructions of the environment, which is increasing our vulnerability to pandemics, pushing climate change, and placing livelihood at risk. Earth Hour 2021 was a crucial event for mankind as the world needs to put all efforts to recover the loss of the COVID-19 pandemic by placing nature at the centre.

This year, among the current global issues, WWF invited people to raise awareness and create unforgettable sights online. Earth Hour Day 2021 was celebrated on 27<sup>th</sup> March worldwide from 8:30 pm to 9:30 pm.

To commemorate this event, utilities participated in various activities that included but not limited to: electronic and print messages on various online platforms such as websites, WhatsApp, Facebook and Twitter; and awareness on national television. The following utilities submitted power saved arising from Earth Hour activities: **EEC 51.4 MW** and **LEC 8.85 MW**.

LEC disseminated WhatsApp videos on different groups; conducted awareness on national television during peak hours, news time and posted videos on LEC Facebook page. EEC engaged in a virtual spotlight which involved radio television and social media campaigns. The company with other stakeholders engaged in long lasting climate change projects such as distributing of solar lamps, reusable bags and installation of gas stoves in vulnerable communities without

power. EEC had a launch of the Earth Hour to the stakeholders on the 8<sup>th</sup> of March which was followed by a Virtual commemoration on the 24<sup>th</sup> of March 2021. The event was graced by the Minister of Natural Resources (Minister Peter Bhembe). Discussions were on Climate change to save planet Earth.



*EEC Acting MD Vusi Gama*



*Participants during the EEC virtual launch*



*Honourable Minister responsible for Energy during the virtual launch*



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## Upcoming Events – 2021

DATE	EVENT
6 April 2021	Joint MSC-OSC meeting on Control Area Services, <b>Virtual</b>
7 April 2021	Workshop 2 – Load Forecasting Methodology, <b>TBC</b>
12 – 30 April 2021	Balancing Market Utility Training Sessions <b>Virtual, MS Teams</b>
7 April 2021	Balancing Market Workshop, <b>Virtual</b>
27 – 28 April 2021	SADC Energy Officials Technical Workshop on Gaps, Risks and Challenges on Regional energy Projects
5 May 2021	SADC ETG Meeting
7 May 2021	Continental Masterplan Inception Report Validation Workshop
11 May 2021	Joint MSC-OSC meeting on Control Area Services, <b>Virtual</b>
June 2021	47 <sup>th</sup> SAPP CC Board Meeting
September 2021	57 <sup>th</sup> SAPP Meetings
28 October 2021	51 <sup>st</sup> SAPP Executive Committee Meeting and SAPP AGM



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