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Meetings, Workshops and Conferences

SAPP Meetings

The 55th SAPP Sub-Committee, SAPP Coordination Centre Board and Management Committee meetings were held virtually during the month of September 2020.

World Bank Supervision Mission

A World Bank supervision mission on the AREP program was held virtually from 14 to 25 September 2020.

System Planning

Review of SAPP Load Forecasting Methodology

Load forecasts forms the basis for rigorous demand/supply planning analysis. Inaccurate load forecast could lead to under or over investments in generation facilities which is costly to the utility, the consumers, the country, and the region at large. Under investments in adequate supply will lead to a disruption in continuous and reliable supply of electricity to the consumer. Over investment in generation may lead to stranded assets which constitutes fruitless and wasteful expenditure.

At the regional level, inconsistent load forecasts could provide false signals to projects of regional benefit by either over or underestimating the benefits of the project.

The SAPP member utilities use different forecasting techniques and often the study horizons differ. Thus, brings challenges when integrating the forecasts to establish a common basis to conduct SAPP analysis.

It is within this context that the SAPP intends to benchmark and evaluate the different load



forecasting methodologies that are being used in the various countries with the final objective being to develop a guideline for load forecasting in the region.

The terms of reference are aimed at assessing the suitability of the recommended load forecasting methodology in individual countries and the region in general. A Consultant was appointed, and the project is ongoing.

Impact of the Integration of Renewable Energy Technologies on SAPP Grid – Part 2

The SAPP has realized the increasing penetration of renewable energy sources in the region in line with general global thinking of reducing the carbon footprint and therefore the need to assess the impact of renewables on the SAPP Grid.

Phase 2 of the study is on-going where the definition of the procedures and investment required to implement modified dispatch processes will be analysed. Bi-weekly meetings are being held virtually with the Consultant to discuss the progress. Three more workshops will be held with the Planning Sub-Committee and Operating Sub-Committee were the following will be discussed:

- Workshop 3, 15th October 2020 – presentation of preliminary findings
- Workshop 4, 12th November 2020 – presentation of draft report
- Workshop 5, 10th December 2020 – presentation of final report.

Setting up SAPP Data Management System

The main objective of this study is to set up a data management system which aims to enable SAPP to have a central depository of all data related to planning, project preparation and development, operations, markets, and environment. This will be assisting the SAPP to easily access the data for any future requirements or studies. The



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procurement of Consultancy services has been completed and the project is at data collection stage. The project will be completed in February 2021.

Update on SAPP Projects

Angola – Namibia Interconnector Project

The ANNA Project Management Committee meeting was held on 9 September 2020 to discuss the ongoing environmental activities and update the project schedule. The environmental approvals for Namibia and Angola are expected in September 2020 and January 2021 respectively.

The outstanding deliverables required prior to finalization of the Feasibility Study are the Project Information Memorandum (PIM) and Risk Register. The PIM will be used to motivate for funding for project implementation.

Baynes Hydro-Power Plant Project

On 17 September 2020, the NEPAD IPPF Inter-Departmental Working Group provided a first-stage approval of funding the Techno-Economic Studies for the Baynes Hydro Power Plant – Transmission Line project, subject to senior management approval. A follow-up meeting with the NEPAD IPPF Procurement team was held on 22 September 2020 to clarify procurement arrangements and discuss the procurement plan.

On 4 September 2020, SAPP held a meeting with the Global Infrastructure Facility (GIF) to motivate for funding the ESIA Study.

Botswana – South Africa Interconnector Project

The Final Draft Feasibility Report was submitted on 4 September 2020 and a final report is expected by the end of the year.

A BOSA Project Management Committee meeting was held on 7 September 2020 to discuss the project schedule which has been delayed by environmental studies and to anticipate approval of the Final ESIA Report by the Department of Environment (DEA) in South Africa.

The BOSA Facility Agreement (FA) will be available to the end of September 2020 and a motivation is in progress for an extension to 28 February 2021 in order to accommodate the completion of the Environmental (ESIA) Study and obtain Environmental Approvals. The Consultants Contract will also be extended to align with the FA.

Kolwezi – Solwezi Interconnector Project

The French Version of the Draft ESIA Report was submitted to the Environmental Agency in the DRC (ACE). ESIA training activities were conducted for personnel from SNEL in French in August and for personnel from ZESCO and SAPP in September 2020.

SAPP facilitated the presentation of the Kolwezi-Solwezi Project at the 31st NEPAD Oversight Committee Meeting which discussed progress on projects being implemented by the NEPAD IPPF Special Fund as well as reviewed future projects into the pipeline.

The Feasibility Study is nearing completion by the end of 2020 and funding will be required to prepare the project for investment of construction activities. SAPP is assisting SNEL and ZESCO to mobilise funding for project structuring and business case development.

Luapula Hydro Power Plant Project

A meeting was held on 29 September 2020 between SADC, SAPP, SNEL and ZESCO with the funding administrators of the SADC

PPDF which is the DBSA together with KfW that provides funding to the PPDF. The meeting followed the directive given by the SADC PPDF Steering Committee for the project parties to discuss the stalemate on funding for the Luapula Hydro Power Project (HPP) which resulted from KfW's intention to withdraw their participation in the Feasibility Studies. The final decision on utilizing the SADC PPDF funding for the studies will be made at the next steering committee meeting.

Mozambique – Zambia Interconnector Project

The main issue to be resolved on the Mozambique-Zambia project is alignment of the transmission line route between the technical and environmental studies in order to accommodate the deviation of the line in Zambia caused by new infrastructure along the transmission corridor. The revised alignment is also taking into consideration the wider rights of way that will be required in Mozambique to accommodate the second transmission line.

Zambia – Tanzania Interconnector Project

A special meeting was held on 28 September 2020 to discuss and verify wind speed values and assumptions made for the project. The Preliminary Overhead Transmission Line Design Report will be finalized and submitted in October 2020. The draft of the Substations Scoping Report was submitted for comments and is being updated.

The ground team for geo-technical investigations was mobilized and commenced activities along the transmission line route. The aerial survey is expected to commence at the beginning of October 2020.



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Regional Transmission Infrastructure Financing Facility (RTIFF)

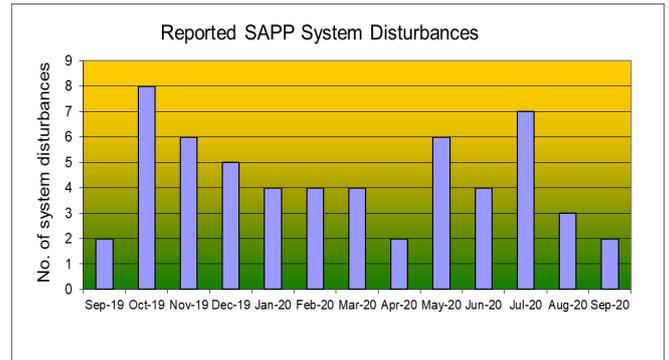
A meeting was held on 17 September 2020 to provide an update on remaining project activities and timeline on the project. This included preparation of presentations that will be made at the upcoming SADC Energy Ministers Meeting at the end of October 2020.

Further discussions were held to agree on the initial projects that will facilitate trade and provide the highest techno-economic benefits and therefore improve the viability of the RTIFF.

System Operations

SAPP System Disturbances

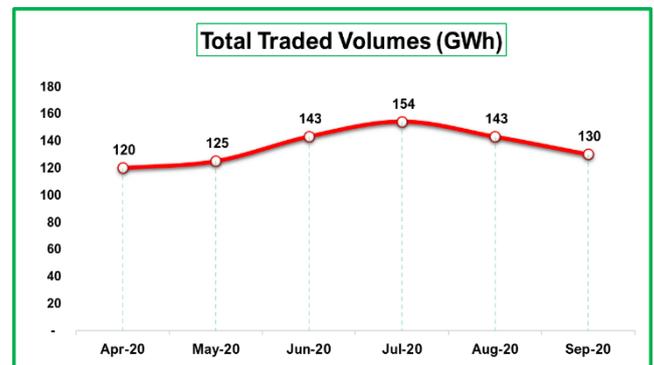
In the month of September 2020, two (2) SAPP system disturbances were reported. The first one happened on the first day of the month. Due to a faulty control unit, generation of about 1000 MW was lost in Mozambique. This triggered power oscillations in the central corridor, tripping the 400 kV Zimbabwe - Botswana interconnector and one generator in Zimbabwe. The second one happened on the last but one day of the month. It was caused by a fault on an HVDC line in DR Congo. The fault occurred when one HVDC converter was out of service for maintenance and rehabilitation. The interruption of about 490 MW in-feed caused voltage and power flow fluctuations in DR Congo, Zambia, and Zimbabwe. Major part of the DR Congo southern network collapsed. The Zimbabwe - Botswana interconnector tripped again in this disturbance, but it was returned to service within ten (10) minutes. Figure below gives an outlook of reported SAPP system disturbances.



Electricity Trading

Traded Volumes

Trading on the market was lower during the month of September 2020 when compared to August 2020. 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 9% to 130 GWh in the month of September 2020, from the August 2020 volume of 143 GWh.



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

Market Energy Prices

FPM Monthly Prices

The market clearing prices for September for the non-off peak was 10 USc/kWh, down from the August 2020 figure of 10.7 USc/kWh. The price for the off-peak period decreased from the August 2020 figure of 3.0 USc/kWh to 2.5 USc/kWh in September 2020.



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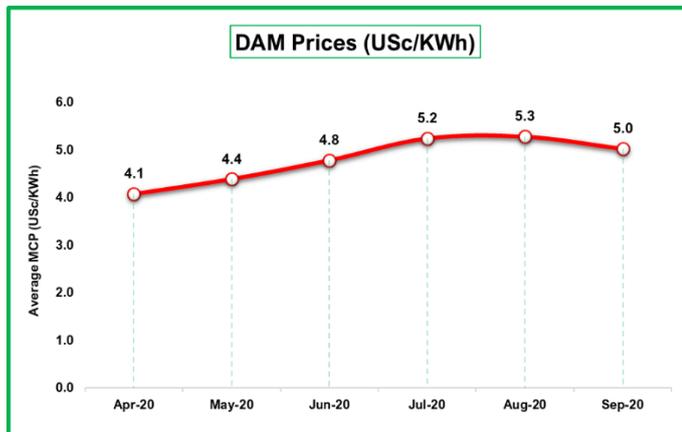


FPM Weekly Prices

The average market clearing price for the peak period was lower by 18% at 11.7 USc/kWh in September 2020 from the August 2020 figure of 14.3 USc/kWh. Standard period average market clearing prices increased from the August 2020 figure of 6.6 USc/kWh to 7.0 USc/kWh in September 2020. The average off-peak market clearing price increased from 2.5 USc/kWh in August 2020 to 2.8 USc/kWh in September 2020.

Day Ahead Market

The monthly average DAM market clearing price (MCP) was slightly lower during the month of September 2020 at 5.0 USc/kWh when compared to 5.3 USc/kWh recorded in August 2020.



Monthly Average Market Clearing Prices from April 2020 to September 2020

Intra Day Ahead Market (IDM)

The average IDM price for the peak period for the month of September 2020 was 6.9 USc/kWh, up from the August 2020 figure of 6.4 USc/kWh. The average IDM price for the standard period decreased to 4.9 USc/kWh in September as compared to the August 2020 figure of 5.0 USc/kWh. The average off-peak period price recorded for September 2020 was 2.3 USc/kWh, down from the August figure of 4.2 USc/kWh.

Market Revenues

A total of USD 6.7 million was exchanged on the competitive market during the month of September 2020 when compared to USD 7.5 million exchanged in August 2020. The change is mainly attributed to changes in traded volumes and changes in prices. USD 14.2 million was exchanged on the competitive market during the month of September in 2019.

Environmental Corner

55th Environmental Sub-Committee Virtual Meeting

The Environmental Sub-Committee (ESC), convened its biannual meeting at the 55th SAPP Meetings, held virtually, on 2nd September 2020.

The following were the major discussion points in the Meeting:

General Overview of Project Environmental Management

It was reported that projects activities were greatly affected by Covid-19 restrictions, especially with respect to stakeholder engagement, and particularly public hearing meetings, ascribed to the scoping process. However, alternative sources of engagement continue to be explored to allow for stakeholder participation.

Management of Environmental Approvals

Further, to mitigate the expiry of environmental approvals, a discussion was held on 4 September 2020, between SAPP Planning Subcommittee (PSC) and Environmental Subcommittee (ESC), where it was agreed to establish an integrated Task Team that would address the alignment of planning and environmental project



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schedules. This will aim to improve the efficiency of project execution.

Additionally, a process is to be evaluated through which SADC member States can establish governance around environmental approvals for SAPP projects. Nonetheless, towards realising this objective, it is anticipated that the SAPP must present an efficient planning process, prior to motivating for this consideration.

Further still, another consideration is engagement of International Financial Institutions (IFIs) on the level of environmental assessment required at project preparation stage, without compromising the requisites of safeguards standards and statutory requirements.

SAPP Environmental and Social Management Framework

The Environmental and Social Management Framework (ESMF) Roll Out Plan has been developed and the “No Objection” from the World Bank was sought to procure a consultant to execute the Plan. Utility project teams are targeted for the execution of this Plan.

SAPP Grievance Redress Mechanism

The SAPP Grievance Redress Mechanism (GRM) was approved by the World Bank for execution. Therefore, all projects henceforth shall be required to report on project grievances as part of the overall environmental and social safeguards reporting.

Environmental Management Systems in SAPP

Recognition was made towards the notable improvement in the implementation of Environmental Management Systems in the utilities.

The following was the status of EMS reported:

- Five utilities had fully implemented ISO 14001:2015 i.e. Eskom, EEC, ZESCO, CEC and HCB; and
- Seven utilities were working towards implementation and at various levels of development i.e. LEC, ESCOM, SNEL, ZESA, EDM, TANESCO and NamPower.

Roadmaps have been developed by utilities that are yet to implement the Standard, with plausible interventions identified to accelerate this process.

Continuous management commitment and support remains critical in ensuring the successful implementation of the EMS. Additionally, the provision of human and financial resources for its implementation cannot be overemphasised.

PCB Phase Out Project

Utilities reconfirmed conclusion of inventories for transmission equipment and ground mounted transformers. Additionally, BPC, ESCOM and LEC reported completion of the inventories for pole mounted transformers (PMTs) in the distribution system, which were still outstanding with the rest of the utilities. Additional financing has been sought from the Africa Institute to conclude the inventory for PMTs.

Inventories have been extended to December 2020 for outstanding equipment in the system in view of the scope of work, spatial distribution, and equipment replacement, for consideration under Phase 2 disposal.

Proposed Clean Energy Fund for SAPP (CEF4SAPP)

The revised concept note for the CEF4SAPP was submitted to the Development Bank of



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Southern Africa (DBSA), who are accredited to the Global Climate Fund (GCF) in the first quarter of 2020. DBSA are being considered as an alternative financial intermediary to the Transformative Carbon Asset Facility (TCAF) who have to date not considered the CEF4SAPP Project Information Note (PIN), submitted in August 2018. The TCAF and GCF, through DBSA, approaches would run in parallel to optimise on the benefits to the SAPP, assuming execution.

Climate Market and Carbon Pricing

The Partnership for Market Readiness (PMR), a forum for collective innovation and action that supports capacity building to scale up climate change mitigation, has initiated a systematic assessment of climate market and carbon pricing opportunities, strengths and weaknesses in the SADC countries that operate in a joint electricity market under the Southern African Power Pool. The study will primarily focus on regional opportunities for coordinating action related to climate markets and may also outline national climate market activities and related capacity support requirements

Utility Climate Change Policy

Utilities are at various levels of development of policies, however, identified to be critical was a statement to towards commitment to address climate change issues, and understanding the vulnerability of the business operations posed by climate change.

Utility Climate Change Initiatives

Utilities reported on interventions being undertaken to address the effects of climate change. These included, but not limited to, tree planting, replacement of incandescent bulbs with CFLs/LEDs, solar lighting, decommissioning of fossil fuel generating facilities and grid extension, and awareness

to the workforce and public on demand side management initiatives.

Effects of COVID -19

The effects of Covid-19 included, but not limited to the following:

- Affected monitoring the environmental performance of projects;
- Physical engagement with Projects Affected People and other stakeholders restricted due to health protocols;
- Limited access to internet and other social media by the general populous affected information dissemination and public participation/involvement; and
- Introduction of rotational work schedules affected work output.

Nonetheless enhancements, revealed are relatable to the following:

- Enhanced virtual interactions, thereby reducing carbon footprint;
- Reduced waste generation and general pollution;

Notwithstanding the tremendous toll of COVID-19, the unprecedented scale of the responses worldwide demonstrates the transformative potential of ambitious action. The same sense of urgency could be applied to other crisis. Transparency is critical; collaboration is essential to eliminate barriers to known solutions. A global reset now is fundamental to maximize results for people and the planet.



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Upcoming Events – 2020

DATE	EVENT
15 October 2020	SADC Energy Thematic Group Meeting, Virtual
20 October 2020	49 th SAPP Executive Committee Meeting, Virtual
22 Oct 2020	Joint PSC, MSC, OSC Meeting, Virtual
20 October – 13 November 2020	Africa Energy Forum incorporating Digital Energy Festival, Virtual
26 - 30 Oct 2020	SADC Joint Energy and Water Ministers' Meetings, Virtual
27 November 2020	45 th SAPP CC Board Meeting, Harare, Zimbabwe



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