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Meetings, Workshops and Conferences

Integrated Resource Planning Webinar for Zambia

The SAPP participated in a virtual webinar on the Integrated Resource planning process for Zambia with a focus of developing Zambia as a power export hub on 27 January 2022. Two presentations were made on the role of SAPP in promoting power trade and the role of Zambia in the SAPP Pool Plan.

SADC Regional Gas Master Plan Inception Report Meeting

The SAPP participated in a virtual meeting discussing the SADC Gas Master Plan Inception Report on 20 January 2022. Africa International Advisors, the consultants on the project made the presentation and indicated the planned activities for the next phase of the study which is aimed at covering plans, regulations and strategic framework.

SAPP Finance Working Group Meeting

The SAPP Finance Working Group met virtually on 28 January 2022 to review the proposed SAPP budget.

System Planning

Transmission Pricing Model Review

SAPP continued with the refinement of the transmission pricing scenarios. The key drivers selected for the analysis of scenarios for transmission pricing are:

- System loading level
- Generation maintenance cycles
- Seasonality associated with hydrological water flows associated with hydro plant production

The final report is expected in March 2022.

SAPP Database Management System

The final inception report was issued in January 2022. The next stage is to have the System Requirement Specification (SRS) and to develop the proposed cloud-based SAPP Data Management System, which will enable SAPP to have a central depository of all data related to planning, project preparation and development, operations, markets, and the environment.



Continental Master Plan Update

As part of the capacity building efforts accompanying the development of the Continental Power Systems Masterplan (CMP) for Africa, a virtual advanced training on the use of EViews Software for electricity demand forecasting was conducted from 24 to 26 January 2022 for 40 utility representatives from the Southern African Power Pool (SAPP). This training was the first in a series of capacity building workshops that will involve training of planning officials from the five African power pools (CAPP, COMELEC, EAPP, SAPP and WAPP) and AUDA-NEPAD during the first quarter of 2022.

SAPP Load forecasting Review

The SAPP agreed that a uniform country level load forecast model should be used by SAPP members to develop individual country forecasts for the purposes of SAPP regional planning should be adopted.

There was a recommendation for SAPP to acquire the EViews load forecasting software for all utilities. This would be the standard tool that utilities will use to determine the country load forecasts for SAPP regional planning purposes. The SAPP is in the process of procuring the software which should be delivered in February 2022.

SADC Regional Grid Code Development

The project is on-going, and the Inception Report was issued, and comments incorporated. The international experiences review was also done, and the report issued.

The next steps are:

- Develop Draft Regional Grid Code based on outline/core content;
- Present the draft regional grid code for review/comments;

- Draft final regional grid code, draft final report and hold validation workshop;
- Submit final report.

The project is expected to be completed in March 2022.

Update on SAPP Projects

Angola – Namibia Interconnector Project

Preparations to launch Part 3 of the project have advanced.

The DBSA and SAPP extended the Facility agreement to 31 December 2022. The Service Level Agreement (SLA) is in the process of being approved and was in circulation for review during the month under review.

Baynes Hydro-Power Plant Transmission Project

Feasibility study TORs which were submitted to the NEPAD-IPPF and SwedFund for a no-objection in the month of December 2021 have been received and are under review and amendment by the Project Manager, in collaboration with RNT and NamPower.

Kolwezi – Solwezi Interconnector Project

The PAU held a meeting with the Industrial Development Corporation (IDC) of Zambia, on 18 January 2022, to explore and discuss the possibility of financing the project, using private sector financing, in collaboration with the public sector through a concession. SAPP and IDC resolved to have a follow up meeting in February 2022, with the inclusion of the private sector financier currently working with the Government of Zambia.

The project feasibility studies were completed in December 2019 and the ESIA studies in October 2021. The Transaction Advisor has



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since commenced preparations to advance the project to financial and legal structuring.

Malawi – Zambia Interconnector Project

Both the technical and ESIA studies for the proposed Malawi – Zambia Interconnector are funded by the World Bank under the SAPP Program for Accelerating Regional Energy/Transformational Projects.

Technical Study:

The RFP which was issued on 30 September 2021 closed on 16 November 2021. A total of six firms/joint ventures submitted proposals. The evaluation team met virtually for the kick-off meeting. Both ESCOM and ZESCO staff participated in the evaluation. The financial offers were evaluated in January 2022. All the firms that submitted proposals attended the opening of financial envelopes. The negotiations have been completed.

ESIA Study:

Proposals from shortlisted consultants for carrying out the ESIA study were received on 18 November 2021 and both the technical evaluation and the financial evaluation were completed in January 2022. Negotiations with the preferred bidder are planned for February 2022.

Mozambique – Zambia Interconnector Project

The techno-economic and ESIA studies for the Mozambique – Zambia Interconnector are funded by the AfDB (NEPAD-IPPF) and the World Bank under the AREP.

Techno-economic Study

The studies are in the final stages of completion. The review of various aspects of the draft final report is in progress. The funding from the AfDB closed on 31 December 2021.

ESIA Study

Final Draft ESIA and the Resettlement Policy Framework Reports are under review. The final reports are expected to be submitted to the Authorities in Zambia and Mozambique during the first quarter of 2022.

Zambia – Tanzania Interconnector Project

On the Zambian side, the preparation of tender documents for the project was completed in October 2021. The next steps include resource mobilisation by ZESCO/Government of Zambia for the implementation of the project. The World Bank under the AREP supported the assignment. The status of the project has remained the same.

Luapula Hydro Electric Power Scheme

Commencement of the detailed feasibility study and the ESIA await the mobilisation of funds. The World Bank, NEPAD-IPPF, NEPAD-AUDA and Swedfund are being engaged for possible financial support for the detailed studies. The NEPAD-IPPF has since committed funds towards the techno-economic studies. Additional funds are however still required to cover the costs for the technical and ESIA studies.

A meeting was held with utilities in the month under review for updates on the project and to agree on the next steps. The Terms of Reference (ToRs) for both the techno-economic studies and ESIA were under review during the month. Engagement of potential funders will continue to help close the budget gap so that the studies can commence.



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Regional Transmission Infrastructure Financing Facility (RTIFF)

SAPP and the Consulting Team progressed efforts across all critical workstreams during the reporting period.

The first draft financial model was constructed and presented to the SAPP and key stakeholders in January 2022. The architecture of the financial model which includes the projects and RTIFF has been presented to key stakeholders and a second iteration is being developed.

In addition, initial inputs for the technical energy modelling were also received from the utilities through the SAPP Coordination Centre in January 2022 and are being iterated by the Consulting Team. These include utility demand and to a more limited extent generation data.

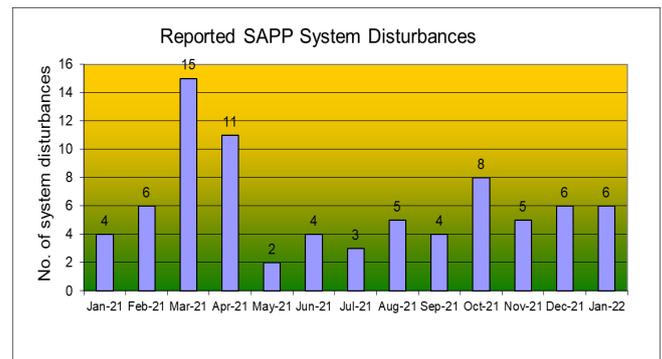
An initial consensus view among key stakeholders was achieved in January 2022 regarding how RTIFF will itself be financed and how it will invest in projects. These findings will be presented to the 58th SAPP management committee meeting for discussions.

System Operations

SAPP System Disturbances

In the month of January 2022, six (6) SAPP system disturbances were reported. In the first 3 disturbances, the 400 kV South Africa - Botswana interconnector tripped due to a transient fault. Consequently, the 400 kV Botswana - Zimbabwe interconnector inter-tripped and locked out. In the fourth disturbance, the HVDC converter #1 tripped in DR Congo. Consequently, the 220 kV Zambia - DR Congo interconnectors tripped on directional over-power protection. In the fifth disturbance, a 220 kV line tripped in DR Congo following a lightning strike. Then the 220 kV Zambia - DR Congo interconnectors

tripped on directional over-power protection. Load was rejected from Zambia to Zimbabwe leading to tripping of the 330 kV Zambia - Zimbabwe interconnectors on directional over-power protection. The last disturbance was a frequency excursion incident. A generation unit tripped from 707 MW in South Africa and the power frequency fell from 49.873 Hz to a minimum of 49.467 Hz. Refer to the figure below for reported SAPP system disturbances in the last 12 months.



Electricity Trading

Traded Volumes

Market performance during the month of January 2022 was higher when compared to December 2021. 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) increased by 25% to 133 GWh in the month of January 2022, from the December 2021 volume of 106 GWh.



Monthly Traded Volumes (GWh) in DAM, IDM, FPM-W, and FPM-M (April 2021 to January 2022).



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Market Monitoring and Surveillance

During the month under review there were no observed cases of market manipulation or use of insider information.

On year-on-year basis compared to January 2021, the average hourly DAM-Market Clearing Prices (MCPs) for January 2022 were relatively similar for both Off-peak and Standard times and higher for Peak periods.

According to the transmission allocation rules, transmission capacity utilisation was deemed to be efficient for the month under review.

The Market Operator observed its own processes and procedures. MS Tools of analysis are in the development phase under the MTP upgrade project.

Environmental Corner

SAPP Joint PSC/ESC Project Management Task Team

The joint Planning and Environmental (PSC/ESC) Project Management Task Team convened a meeting on 19th January 2022, to address the lapse in Environmental Approvals. It was established that four (4) regional projects had their environmental approvals expired due to lapse of the validity period, which on average is three (3) years, prior to project commencement. There is, however, a general provision in the laws to apply for an extension of validity, provided there is no significant changes to the receiving environment. Nonetheless, the extension in validity, 2 – 3 years, may not be sufficient to address the requirements of SAPP, taking into account the project development pathway. Arising from the discussions, the following action items were tasked:

PSC: Explore alternative proposals to address the technical and/or other aspects leading to Environmental Authorisations (EA) expiry; and draft SAPP Project Development Program to establish the timelines for various activities prior to project execution.

ESC: Explore alternative proposals to address the environmental and/or other aspects leading to EA expiry.

SADC PCB Elimination Project

SAPP PCB Awareness Programme

Utilities submitted responses to a questionnaire developed to address Component 1: Assessment of the utilities capacity for the implementation of PCB education and awareness programmes under the programme. The submissions enabled analysis and determination of activities to be conducted under Component 2 of the Programme, Development and Production of PCB Regional Awareness Material.

Upcoming Events – 2022

DATE	EVENT
22 Feb 2022	SAPP Sub-Committee Meetings
23 Feb 2022	SAPP Coordination Centre Board Meeting
24 Feb 2022	SAPP Management Committee Meeting
17 March 2022	SAPP Executive Committee Meeting
28 February to 04 March 2022	7 th PIDA Week, Nairobi, Kenya
1 – 3 March 2022	Africa Energy Indaba, Cape Town, South Africa
28-31 March 2022	AUDA-NEPAD Continental Master Plan Power Pool Workshop, Harare, Zimbabwe



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