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Meetings, Workshops and Conferences

Webinar in Integrated Resource Planning for Decision Makers

A webinar was arranged by SACREEE on Integrated Resource Planning for Decision Makers. This was attended by various stakeholders from Government and Utilities.

SADC Technical Workshop on Project Gaps, Risks and Challenges

SAPP participated in a virtual workshop of SADC Energy officials organised by the SADC Directorate of Infrastructure from 27 to 28 April 2021 to discuss gaps, risks and challenges in development of power projects in the region. The aim is to come up with ways of addressing these leading to improved power infrastructure development in the Region.

System Planning

Review of SAPP Load Forecasting Methodology

Load forecasts form the basis for rigorous demand/supply planning analysis. Inaccurate load forecasts 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. 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. 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 major milestone for the project during the period under review was the discussions and recommendations made during the second workshop which was held virtually on 22 April 2021. The main objective of the workshop was to present the draft report to the PSC members. The key outcomes of the workshop were:



- To get comments from the SAPP participants on the Draft report
- Utilise the workshop to ensure that SAPP member utilities are fully informed about assumptions and data used and approach to derive their forecasts; and
- Finalise any refinements that maybe required from each of the SAPP member utilities.

The work scheduled for May is:

- Finalise the Draft Report
- Analysing the impact of data shortage on the Project deliverables
- Prepare the Load Forecast Model and Manuals.

Setting up SAPP Data Management System

Phase 1 of the project has been completed. All sets of documentations were finalised in February 2021. The SAPP is currently in a process of procuring the data portal. Expression of interest for the data management system were issued and 6 firms submitted their proposals. The evaluation process is underway.

Transmission Pricing Model Review

The SAPP has embarked on a project to improve the Transmission Pricing Methodology for implementation. The following activities have been completed during the period under review:

- A Project Kick-off Meeting with the SAPP Coordination Centre (SAPP CC), the Transmission Pricing Task Team and the World Bank project team was held online on Thursday 8th April 2021.
- Data collection activities including the creation by the consultant of an electronic data room into which the SAPP CC and SAPP members can submit data for use in the study.

- Further development of the transmission pricing methodology that will be implemented during the study.
- A project meeting with the SAPP Transmission Pricing Task Team to discuss the algorithm and the development of the Transmission Pricing tool was held on the 26th of April 2021.

Work schedule for the month of May 2021 is as follows:

- Delivery of Inception Report – 5th May 2021.
- Workshop 1 to discuss the Inception report – 11th May 2021.

SAPP Transmission Maps Development

The SAPP embarked on a project with the objective of developing and updating the transmission grid maps (existing and future) including the siting of existing and future power plants. These interactive maps will help stakeholders to easily visualize the current state of the interconnected systems, projects under consideration and future proposed projects.

The development of the Maps has been completed and members can now visualise the Maps on the online portal. The major milestone for the period under review was the delivery of the Final report. Training of SAPP CC personnel is planned to take place from 3rd to 7th May 2021.

Update on SAPP Projects

Baynes Hydro-Power Plant Project

ESIA Studies:

- Revision of the ESIA Terms of Refences (TOR) is ongoing and is planned for the completion mid of May 2021.



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- Preparation of an aligned schedule of Technical and ESIA work plans, in collaboration with SwedFund, is ongoing. Final schedule is planned for submission to stakeholders by early May 2021.
- The process of estimating the Technical and ESIA funding gaps is ongoing.
- The evaluation of 22 EOI bids, for the procurement of a Technical study consultant, commenced on 30 April 2021.

Kolwezi – Solwezi Interconnector Project

ESIA Studies:

The service contract of AFRY has been extended to June 2021.

In the month of April 2021, the following were some of the project works done.

(a) On the Zambian side:

- Integration of the comments from ZEMA into the ESIA report.
- Submission of the RCAP to the authorities (ZEMA) were done on 6 April 2021.

(b) On the DR Congo side:

- Submission of the RCAP and ESIA to the authorities (ACE) were done on 20 April 2021.

Malawi – Zambia Interconnector Project

Procurement of Consultancy Services:

- Evaluation of 29 Technical REOs submitted by Technical consulting firms is ongoing.
- Evaluation of 28 ESIA REOs submitted by ESIA consulting firms is ongoing.
- The Technical and ESIA evaluation assignment is planned to end in early May 2021.

Mozambique – Zambia Interconnector Project

Technical Studies:

Transmission Line Design and Geotechnical Investigation have progressed to 85%. Project viability analysis is ongoing, and progress is at 95%.

(a) On the Mozambique side:

- EDM submitted to AFC, a list of generation projects necessary for economic justification and development of the transmission line.
- Geotechnical investigations have progressed to 90%.
- Standard 3-meter ground boring geotechnical investigations shall be implemented at the Zambezi river crossing point.

(b) On the Zambia side:

- Geotechnical investigations have been completed.
- Tax exemption on geotechnical works in Zambia still pending, despite intervention of SADC.

(c) AfDB and World Bank funded project components are almost complete:

- Comprehensive study of the line route has been completed.
- Transmission Line Design and Geotechnical Investigation is ongoing, with progress at 85%.

ESIA Studies:

(a) On 15 April 2021, WSP, EDM, ZESCO, SAPP and the World Bank held an ESIA workshop to review and harmonise study findings on the Mozambique section of the



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line. Comments were submitted following reviews of the following ESIA documents:

- Volume I - Introduction, project description and baseline assessment.
- Volume II - Impact assessment and mitigation measures.
- Volume III - Environmental and Social management plan.
- Volume IV - Annexes.
- Volume V - Physical and socioeconomic survey report (resettlement policy framework).

(b) Public Disclosures in Zambia

- Invitation letters for clients, political leaders and traditional leaders have been finalised.

Zambia – Tanzania Interconnector Project

Technical Studies:

The Feasibility study has largely progressed well and yielded some significant outputs.

- On 15 April 2021, WSP, ZESCO and SAPP held a workshop to review and harmonise the draft final Transmission line design report.
- On 23 April 2021, WSP released the final Transmission line design report, incorporating comments by ZESCO and SAPP.
- Site inspection of existing 330kV substations along the Pensulo-Mpika-Kasama-Nakonde transmission corridor will be undertaken from 10 May to 14 May 2021. Covid-19 impacted the task of substation inspections in the mid-range of the project life.
- WSP has since requested for time extension, from 14 May 2021 to 30 July 2021, to finalise the outputs.

Regional Transmission Infrastructure Financing Facility (RTIFF)

The SAPP Coordination Centre made a virtual presentation to the Ministries Responsible for Energy in Angola, DRC and Namibia on the 28th of April 2021. The main objective of the meeting was to engage with officials from Ministries Responsible for Energy of the three member states on the concept of developing the Western Corridor Transmission interconnector projects which are part of the RTIFF assignment.

After the presentations from SAPP on RTIFF and the Member States presentations on their respective readiness of RTIFF, it was noted that there is common interest to support and progress the RTIFF concept from Angola, DRC and Namibia.

System Operations

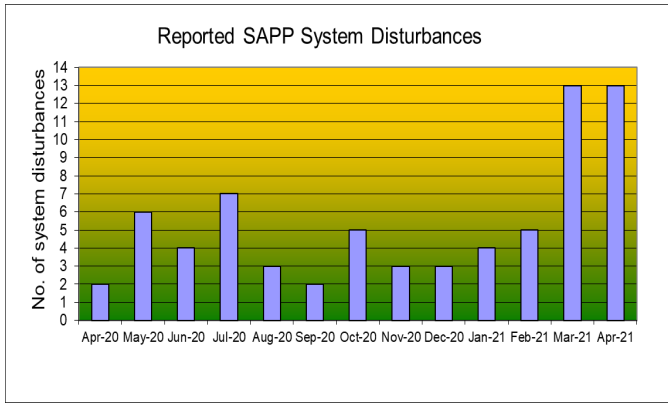
SAPP System Disturbances

In the month of April 2021, two power frequency incidences were experienced. One was a low frequency incident due to tripping of a generator in South Africa and the other one was a high frequency incident due to loss of load in DR Congo. Also, the interconnector between South Africa and Botswana tripped nine times in the month due to earth faults attributed to birds activities and faulty insulation. The HVDC link in DR Congo tripped once due to a transient fault. The output from the Mozambique - South Africa HVDC link was interrupted once due to loss of about 1100 MW of generation from a major power station in Mozambique. In total thirteen SAPP system disturbances were reported in the month. Refer to figure below for the outlook of reported SAPP system disturbances in the last twelve months.



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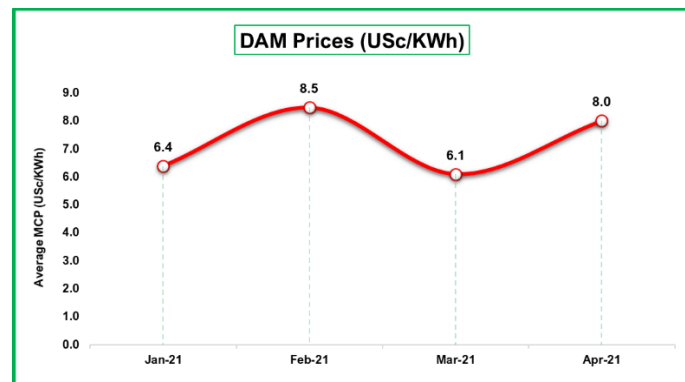
2021 figure of 5.0 USc/kWh to 4.0 USc/kWh in April 2021.

FPM Weekly Prices

The average market clearing price for the peak period was higher by 15% at 18.7 USc/kWh in April 2021 from the March 2021 figure of 16.2 USc/kWh. Standard period average market clearing prices decreased from the March 2021 figure of 7.4 USc/kWh to 7.2 USc/kWh in April 2021. The average off-peak market clearing price decreased from 4.4 USc/kWh in March 2021 to 3.8 USc/kWh in April 2021.

Day Ahead Market

The monthly average DAM market clearing price (MCP) was higher by 31% during the month of March 2021 at 8.0 USc/kWh when compared to 6.1 USc/kWh recorded in March 2021.



Monthly Average Market Clearing Prices from January 2021 to April 2021.

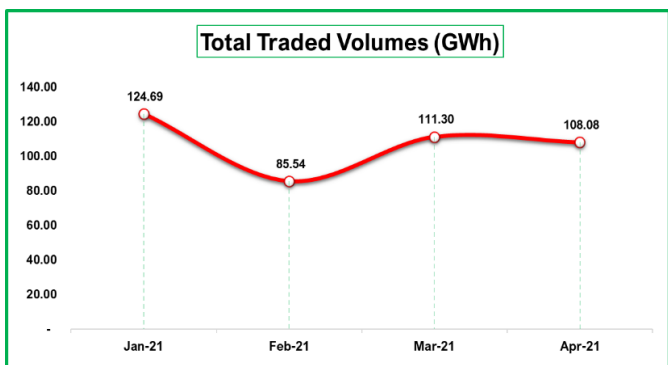
Intra Day Ahead Market (IDM)

The average IDM price for the peak period for the month of April 2021 was 11.8 USc/kWh, up from the March 2021 figure of 8.0 USc/kWh. The average IDM price for the standard period increased to 7.7 USc/kWh in April 2021 from the March 2021 figure of 5.4 USc/kWh. The average off-peak period price recorded for April 2021 was 5.1 USc/kWh, up from the March 2021 figure of 4.0 USc/kWh.

Electricity Trading

Traded Volumes

Trading on the market was lower during the month of April 2021 when compared to March 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) decreased by 2.9% to 108 GWh in the month of April 2021, from the March 2021 volume of 111 GWh.



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

Market Energy Prices

FPM Monthly Prices

The April 2021 market clearing price for the non-off-peak period was 10 USc/kWh, the same as the March 2021 figure. The price for the off-peak period decreased from the March



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Market Revenues

A total of USD 7.14 million was exchanged on the competitive market during the month of April 2021 when compared to USD7.24 million exchanged in March 2021. The change is mainly attributed to changes in traded volumes. USD 5.12 million was exchanged on the competitive market during the same month of April in 2020.

Environmental Corner

SADC PCB Elimination Project

Monthly Project Meeting

The Project Coordinator convened a monthly meeting for the participating country focal persons on the Project, on 29th April 2021, to review the status and execution of activities. Major areas of discussions included the following:

- Continued quarterly reporting on status of project activities relating to: Legal Update; Inventory; Temporary Storage; Awareness raising; Phase out Plan; and Financial expenditure.
- Legal Updates to now include gender and human rights aspects, as required by UNEP.
- Contractor Operational Plans will generally follow a 3-step process:
 - Following contract signature, a series of kick-off meetings will be organized between the Contractor, Project Manager, and utilities or waste owners, at which the available equipment will be proposed.
 - During preliminary site visits by the Contractor, the equipment will be inspected and verified, and will be included in a detailed work/logistics plan to be developed for each country.

- Task Orders will be issued based on the approved work/logistics plans and signed off.

United for Efficiency: United for Efficiency (U4E), is a global program which is assessing the efficiency of Energy production in all countries. A UNEP consultant 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. Information for energy efficiency has thus far been requested in the letters sent to 5 countries (Botswana, Eswatini, Lesotho, Malawi and Tanzania). This presents an opportunity to disposal of equipment that is PCB contaminated and in operation.

SAPP/Africa Institute Memorandum of Understanding

Following the approval of the Memorandum of Understanding (MoU) between the SAPP and Africa Institute by the SAPP Management Committee, in its sitting of 4th March 2021, the Executive Directors of the respective institutions signed the document. The MoU will focus on Capacity Building and Risk communication and development of Standard Operating Procedures (SOPs) for maintenance of contaminated transformers in utilities.

6th Nile Basin Development Forum

The 6th Nile Basin Development Forum (NBDF) hosted by Ethiopia, continued to host its series of webinars, from 9th March to 29th April 2021, assessing the implementation of water resources investments at a speed and scale commensurate with the growing demand for food, water and energy across the Basin. The SAPP, at the invitation of the NBDF, participated in April webinars which



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included, but not limited to the following areas of discussion:

- Tools, approaches, and technologies to understand and enhance a state of water productivity to gain in food and nutrition security.
- Establishment and maintaining vigorous river basin monitoring.
- Integrating ground stations and earth observations.
- Multi-Track water diplomacy: Its role in bringing actors, institutions and processes together in the Nile Basin.
- Participation and inclusivity as success factors to the water governance in the Nile Basin.
- New analytical tools to understand and plan water-energy system linkages in East Africa.
- Transboundary water governance and regional economic cooperation.
- Enhanced collaboration between energy and water planners in the Nile region.

The discussions have thus far exemplified the importance of approaches, tools and technology in water management, while upholding the tenets of good governance and diplomacy.

World Bank Partnership for Market Readiness: Scoping of Regional Climate Market Support Needs for Southern Africa

The consultant on the World Bank Partnership for Market Readiness (PMR) drafted a Concept Note (CN) to explore creation of a Regional Climate Market/Platform. The expectation is that if a minimum of three (3) Member States agree to champion the creation of the Regional Climate Market platform, after which other Member States can join. The CN further proposes to start with the Power sector where some coordination platform already exists

under SAPP leadership - then move on to other sectors as resources permit on a demand driven basis. The CN thus places SAPP in the coordination role for the proposed follow up activities towards a regional climate market. The World Bank would then have an MOU with SAPP for some support activities as defined in the CN.

European Union Green Deal Training

Fifteen (15) Members of the Environmental Sub-committee were nominated to attend the European Union (EU) Green Deal eight-week course covering the fundamentals of energy and climate policy as reformulated in the context of the EU Green Deal. Participation will be fully covered by SAPP under the SAPP - AREP Programme and SAPP - ENTSO-E Cooperation Beyond Membership arrangement on Capacity Building. The training will be conducted in the period 3rd May – 24th June 2021.

Upcoming Events – 2021

DATE	EVENT
3 May – 24 June 2021	European Union (EU) Green Deal on the fundamentals of energy and climate policy, Virtual
5 May 2021	SADC ETG Meeting
7 May 2021	Continental Masterplan Inception Report Validation Workshop
11 May 2021	Joint PSC-MSC meeting on Transmission Pricing, Virtual
20 May 2021	Joint MSC-OSC meeting on Control Area Services, Virtual
27 May 2021	SADC Webinar on capacity building on mainstreaming gender and renewable energy
June 2021	47 th SAPP CC Board Meeting
September 2021	57 th SAPP Meetings
28 October 2021	51 st SAPP Executive Committee Meeting and SAPP AGM



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