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October 2021 for the stakeholders/partners to catch up on various activities undertaken in the region over the past 6 months. The meeting was held virtually due to the travel restrictions imposed because of the COVID 19 pandemic.

SAPP OSC Meeting on Cyber Security

On 04 October 2021, the SAPP Operating Sub-Committee (OSC) held a meeting on cyber security. Members of the SAPP Telecommunications Working Group and persons responsible for cyber security in the SAPP utilities participated in the meeting. The SAPP cyber security procedure was reviewed. Also, the SAPP specification for a cyber security system to be installed at SAPP Coordination Centre was finalised.

51st SAPP Executive Committee Meeting

The 51st SAPP Executive Committee (EXCO) meeting was held virtually on 7 October. The meeting approved the adoption of standard, peak and off-peak time of use periods in the SAPP Forward Physical Market – Monthly as a way of increasing flexibility on this market portfolio. EXCO admitted GreenCo Power Services of Zambia as a new member of SAPP in the Market Participant category.

SADC Energy Sub-Committee Meetings

The SADC Energy (Electricity, Petroleum and Gas) Sub-Committees meetings took place virtually from 13 to 15 October 2021. Issues discussed included the review of the SADC Protocol on Energy, status of power supply and demand in the Region, progress on the implementation of power infrastructure projects, barriers to energy trading, energy regulatory aspects and operationalisation of the SADC Centre for Renewable Energy and Energy Efficiency (SACREEE).

Meetings, Workshops and Conferences

SADC Energy Thematic Group Meeting

The 28th SADC Energy Thematic Group (ETG) meeting was held on the 25th of



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APUA Meetings

The Association of Power Utilities in Africa (APUA) meetings were held in a hybrid form (physical and virtual) from 12 to 15 October 2021. This included the meetings of the Forum of African Power Pools.

AEEP Forum 2021

The Africa – EU Energy Partnership Forum for 2021 was held on 20 October under the theme Aligning Energies for a Green and Prosperous Africa. Key priorities for action were agreed to during the forum.

Regional Power Market in South Asia Webinar

SAPP made a presentation sharing its experiences at a webinar entitled Establishing a Regional Power Market in South Asia on 26 October 2021. The participants were from Bhutan, Sri Lanka, Nepal, Bangladesh and India. The focus was identifying key requirements for establishing a power market in South Asia.

5th Africa Energy Market Place

The AfDB organised 5th Africa Energy Market Place (AEMP) was held virtually from 27 to 29 October 2021. The theme was “Identifying Opportunities across the energy value chain: Resolving bottlenecks and unlocking investments (Cameroun, Kenya, Tunisia, Mozambique, Guinea)”. SAPP participated on the session focusing on Mozambique and made a presentation on the role of Mozambique in the SAPP.

System Planning

Transmission Pricing Model Review

The review of the Transmission Pricing model continued during the month. Consultative meetings were held with the SAPP members

on the development of PSS/E scenarios, cost database and maintenance schedules. The project is expected to be completed in December 2021.

SAPP Database Management System

The development of the SAPP Database Management System continued during the month. The first contract negotiation meeting had been held in September 2021 in which key implementation points were raised and further discussions were made internally by SAPP. The second contract negotiation meeting was held on the 18th October 2021 and outstanding issues were agreed upon.

Development of SADC Grid Code

The Regional Grid Code is required to address the planning, connection and operating arrangements that will apply to the transmission systems of the Transmission System Operators (TSOs) and State-Owned Utilities (SOUs) in the SADC region. The primary focus will be on the SAPP member utilities and their interconnected transmission systems. Given the importance of the SAPP market in facilitating regional electricity trading, the existing SAPP Operating Guidelines and other arrangements, e.g. relating to market surveillance, the development of the Balancing Market and the ongoing study focused on improving and implementing a revised transmission pricing mechanism, will form core inputs to the development of the Regional Grid Code.

An inception workshop was held with all key SADC electricity sector stakeholders on the 26th of October 2021 to contextualise the assignment, align expectations and generally agree on requirements.

The project which is funded under the World bank AREP is being coordinated by RERA



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and is expected to be completed in March 2022.

Continental Power System Masterplan Modelling

The overall objective of the Continental Master Plan (CMP) development is to carry out modelling and planning studies for the African continental power system. The specific objectives of the assignment include establishment of a harmonised and integrated continental transmission system that will interconnect regional transmission networks, and identification of priority power generation and transmission projects up to year 2040. The CMP will be a blueprint of the African Single Electricity Market (AfSEM) and will act as the central pillar to solve Africa's energy challenge.

A consultation meeting was held with the Planning Sub-Committee on the 10th of October 2021 where discussions, verification and adoption of assumptions, approach and methodologies of demand forecast (Deliverable 2) and planning scenarios (Deliverable 4) were made. The project is expected to be completed in March 2023.

Update on SAPP Projects

Baynes Hydro-Power Plant Transmission Project

Technical Study:

The Technical procurement process has progressed through the EOI, to the RFP stage. The AfDB has reviewed the TORs and provided feedback on minor changes on the document.

ESIA Study:

The Environmental process has advanced to the EOI stage. SAPP and SwedFund agreed

to subject the procurement to an EOI process.

Kolwezi – Solwezi Interconnector Project

ESIA Study:

The Environmental and Social Impact Assessment (ESIA) study was successfully closed on 31 October 2021. Highlights of the project findings included the following:

- ESIA study was approved in DRC and Zambia.
- The ESIA study revealed sensitive impacts associated with social aspects such as influx of migrant workers, labour grievances.
- The implementation of a Grievance Redress Management Plan and a Labour Management Plan would assist in mitigating the impacts.
- The study also showed minimal impact on soil (soil erosion) with a potential to become significant if not well managed.
- No community along the line route was compensated as the preferred routing is not inhabited by communities on both sides of the border.

Malawi – Zambia Interconnector Project

Technical Study:

The Technical procurement process to hire consultancy services has progressed to the RFP stage. Opening of RFP bids is planned for 16 November 2021.

ESIA Study:

The Environmental procurement process to hire consultancy services has progressed to the RFP stage. Opening of RFP bids is planned for 18 November 2021.



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Mozambique – Zambia Interconnector Project

Technical Study:

The phase 2 Feasibility study is at 80% progress on deliverables and is scheduled to close by December 2021. Below is a summary of the project status:

- The draft transmission line design and line route report is at 95% progress, is delayed and will be submitted in November 2021.
- The final Geotechnical Investigation report was submitted on 21 October 2021.
- The draft substation design report was completed as of 31 October 2021, circulation is planned for early November 2021.
- The project cost estimates; substations and transmission line infrastructure report are at 75% progress, and will be submitted in early November 2021.

ESIA Study:

The Final draft deliverables were received. For the Mozambique portion transmission line, the submission includes the following reports:

- Final Draft ESIA Report (Volume I, II)
- Final Draft ESMP Report (Volume III)
- Annexures (Volume IV)
- Resettlement Policy Framework (Volume V)
- Public Participation Report (Volume VI)

The reports received for the Zambian portion of the transmission line include:

- Environmental Impact Statement (EIS)
- Environmental and Social Management Plan.
- Resettlement Policy Framework.

The reports are currently under review by the project team and the financiers.

Zambia – Tanzania Interconnector Project

Technical Study:

The project closed on 31 October 2021, and the consultant has issued a final project closing report. Highlights from the project include:

- Final preliminary design report approved.
- Final Overhead line design report approved.
- Tender documents for Lots 1, 2, 3, 4 and 5 approved.
 - Lot 1 is for Pensulo – Mpika Transmission Lines and Line Bays.
 - Lot 2 is for Mpika – Kasama Transmission Lines and Line Bays.
 - Lot 3 is for Kasama – Nakonde Transmission Lines and Line Bays.
 - Lot 4 is for Nakonde – Border Transmission Line.
 - Lot 5 is for Pensulo Dynamic Voltage Support Devices.

Regional Transmission Infrastructure Financing Facility (RTIFF)

The consultants are working towards the development of all key elements as per the scope agreed in the proposal and making good progress. Following the in-depth review of the process with SAPP and SADC at the proposal stage the sequencing was amended to maximise traction and engagement.

The plan is to move forward with the finalisation of the next version of the blueprint as soon as the comments window is closed. Substantial progress has been made to date on the first set of deliverables, which fall under the first contractual milestone, and these include:



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A Revised outline of the design approach (revised work plan)

- A revised work plan was developed in consultation with SAPP and SADC.
- The revised work plan was shared with the wider team during the bi-monthly meeting on 28 October 2021.

Draft high-level governance framework in respect of the regulation and review of stakeholders

- Discussions with SAPP/SADC were held in October 2021.
- Key questions were shared with SAPP MANCO/ RTIFF Oversight Taskforce on 26 October 2021.
- Consultant's Legal workstream is refining the framework and plan to present it on 11 November 2021.

Revised RTIFF Blueprint and presentation material for SAPP MANCO/ RTIFF Oversight Taskforce

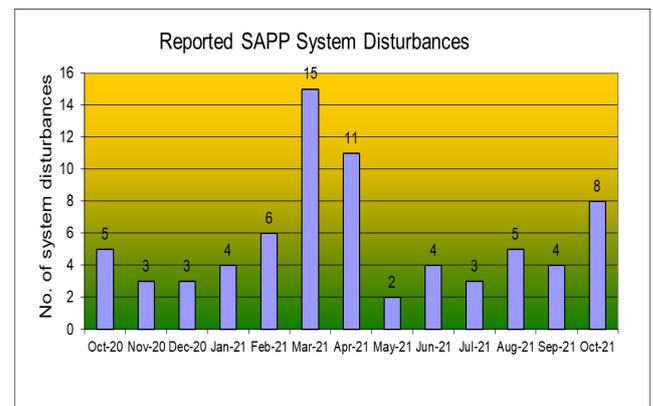
- The workshop was held on 26 October 2021.
- The consultant is now expected to update the Blueprint following comments from members as well as taking note of changes in the environment which include an update of possible jurisdictions.

System Operations

SAPP System Disturbances

In the month of October 2021, eight (8) SAPP system disturbances were reported. In the first one, the 400/330 kV transformer for the Zimbabwe - Botswana interconnector in Zimbabwe tripped on neutral displacement. In the second one, failure of a generator circuit breaker in Zambia led to total collapse of the Zambian power system. In the third

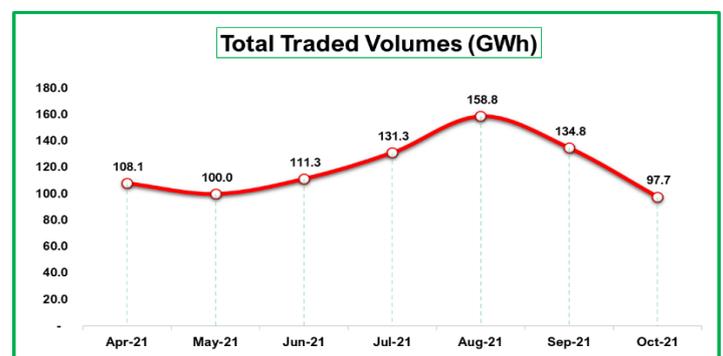
one, the 330 kV Mozambique - Zimbabwe interconnector tripped due to a transient earth fault. The remaining 5 disturbances were power-frequency-excursion events caused by loss of generation units in South Africa. Refer to figure below for an outlook of reported SAPP system disturbances in the last 12 months.



Electricity Trading

Traded Volumes

Trading on the market was lower during the month of October 2021 when compared to September 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 28% to 97.7GWh in the month of October 2021, from the September 2021 volume of 134.8 GWh.



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



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Market Prices

FPM Monthly Prices

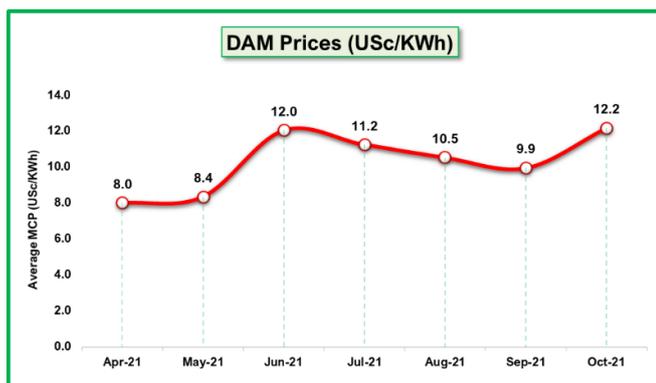
The October 2021 market clearing price for the non-off-peak period was 10.0 USc/kWh, the same figure as witnessed in the month of September 2021. The price for the off-peak period decreased to 4.0 USc/kWh in October 2021 from the September 2021 figure of 4.3 USc/kWh.

FPM Weekly Prices

The average market clearing price for the peak period was lower by 12.4% at 17.0 USc/kWh in October 2021 from the September 2021 figure of 19.4 USc/kWh. Standard period average market clearing prices increased from the September 2021 figure of 9.8 USc/kWh to 10.7 USc/kWh in October 2021. The average off-peak market clearing price for the month of October 2021 was 4.7 USc/kWh. During the month of September 2021, the average off-peak price was at 4.4 USc/kWh.

Day Ahead Market

The monthly average DAM market clearing price (MCP) was higher by 23% during the month of October 2021 at 12.2 USc/kWh when compared to 9.9 USc/kWh recorded in September 2021.



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

Intra Day Ahead Market (IDM)

The average IDM price for the peak period for the month of October 2021 was 13.1 USc/kWh, up from the September 2021 figure of 8.1 USc/kWh. The average IDM price for the standard period was 7.6 USc/kWh in October 2021, up from the figure of 6.3 USc/kWh recorded in September 2021. The average off-peak period price recorded for October 2021 was 5.4 USc/kWh, up from the September 2021 figure of 3.2 USc/kWh.

Market Revenues

A total of USD 9 million was exchanged on the competitive market during the month of October 2021 when compared to USD 12 million exchanged in September 2021. The change is mainly attributed to changes in prices and traded volumes. USD 8 million was exchanged on the competitive market during the same month of October in 2020.

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 October 2020, the Market Clearing Prices (MCPs) for October 2021 were relatively higher due to the easing of the COVID-19 lock-down restrictions within the SAPP Market region. 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.

Enerweb finalized the functional design specification document for market surveillance. The project is now moving into the development stage to ensure



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implementation of the specifications as soon as possible.

Environmental Corner

SADC PCB ELIMINATION PROJECT

Monthly Project Meeting

The Africa Institute (AI), the executing agency of the a-SADC PCB Elimination project, convened the project monthly meeting on 27 October 2021. The following were the salient discussion points:

- Contract negotiations with service providers for the disposal of PCBs is ongoing, to establish operational plans for the respective countries and establish readiness for the development of a collection schedule; and establish of ports of use.
- Notification notices from respective countries anticipated in Q1 of 2022, to establish start point
- Inventory of pole mounted transformers to be addressed on an individual country needs basis
- Inventory timeline extended to Q1 of 2022 for those countries that have not had the disposal plans approved
- National consultants expected to be engaged in November 2021 to assist with the conclusion of outstanding project activities

Gender Mainstreaming Training Workshop

As part of the Gender Mainstreaming Strategy and Action Plan developed within the framework of the “Disposal of PCB Oils Contained in Transformers and Disposal of Capacitors Containing PCB in Southern Africa” project, a basic-training workshop session was held virtually on 8 October 2021.

The training aimed to raise awareness about the current Gender Action Plan and facilitate its adoption. The session aimed to enhance the participants knowledge on the interplay between sex, gender and exposure to PCBs, and from another side to identify relevant entry points for mainstreaming gender considerations while planning and implementing PCB phase-out interventions. By achieving this twofold result, the participating country teams will be better equipped to translate good gender-design into tangible gender-results as reflected in the project M&E processes.

The training also laid the necessary foundations for potential future capacity-building efforts in the target countries where advanced-trainings could be planned and tailored to address specific country needs on an “as-we-go” basis to advance the gender equality agenda in the areas of chemicals and waste management in line with the Global Environmental Fund Gender Policy and the SDGs.

This online training benefited regional participants and fostered cross-border exchanges of lessons learned and good practices, within the broader framework of south-south cooperation.

World Bank Partnership for Market Readiness: Regional Carbon Pricing Platform for Southern Africa

In 2020, the World Bank held consultations with key stakeholders on the support needs for carbon pricing instruments in the SADC region, with an emphasis on the power sector. Based on the discussions and support needs indicated, a proposal for a work program on ‘*Regional Carbon Pricing Support*’ was developed. This is expected to be supported through the World Bank’s



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Partnership for Market Implementation (PMI). Following conclusion of the consultative process, a stakeholders meeting is scheduled to be convened virtually on 18 November 2021 to deliberate on the elements and share feedback. Participants will be drawn from the Environmental Sub-Committee of SAPP member utilities, the SADC Secretariat (Environment/Climate unit and Energy Division), RCC/UNFCCC Secretariat, UNFCCC Climate Change focal points, and the World Bank.

Upcoming Events – 2021

DATE	EVENT
09 November 2021	Joint SAPP MSC and OSC Meeting, Virtual
29 November – 2 December 2021	SADC Energy Ministers Meetings, Hybrid , Blantyre, Malawi.
16-19 November 2021	AUDA-NEPAD African Power Pools Workshop on Continental Master Plan, Johannesburg
9 December 2021	49 th SAPP CC Board Meeting
6-10 December 2021	PIDA Week, Hybrid , Nairobi, Kenya
December 2021 / Jan 2021	SAPP Finance Working Group Meeting



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