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Meetings, Workshops and Conferences

Africa Energy Indaba 2022

The Africa Energy Indaba 2022 took place virtually from 1 to 3 March 2022. The SAPP Executive Director was part of a Panel on Grid Operator and Grid Management Capability.

MANCO Special Meeting on RTIFF

The SAPP Management Committee held a special meeting in conjunction with the SAPP Executive Committee Task Team on RTIFF on 8 March 2022. The purpose was to discuss progress on the RTIFF assignment and make recommendations to the Executive Committee.

Baynes Hydro Power Project Stakeholder Workshop

SAPP CC participated in the Baynes Hydro Power Project stakeholder workshop on 10 March 2022 in Windhoek, Namibia. An update on the project was provided as well as the planned way forward on the dam, power plant and transmission lines.

SAPP Executive Committee Meeting

The 52nd SAPP Executive Committee meeting was held virtually on 17 March 2022. Various issues were discussed including the approval of the SAPP budget for the 2022/23 financial year.

PLEXOS Training

Training was organised by Energy Exemplar for the SAPP Coordination Centre focusing on the following:

- PLEXOS interface and data model;
- PLEXOS modelling framework;
- Dispatch and resource allocation; and
- Long term planning.

International Renewable Energy Conference

SAPP CC participated in the AMH organised International Renewable Energy Conference held in Victoria Falls, Zimbabwe from 22 to 25 March 2022. SACREEE and SAPP highlighted the role of regional organisations



in the development of renewable energy projects in a panel discussion at the conference.

System Planning

SAPP Database Management System

The SAPP continued with the development of the proposed cloud-based SAPP Data Management System (DMS), which will enable SAPP to have a central depository of all data related to planning, project preparation and development, operations, markets, and the environment.

During the period under review the following deliverables were achieved:

- Final DMS Software Architecture report and the comment matrix document – 9 March 2022
- DMS Software Demo presentation – 14 March 2022

Continental Master Plan Update

The momentum is building to establish interconnection of Africa's continental energy infrastructure. The Continental Power System Master Plan (CMP), which designs a strategic roadmap for connecting Africa's five regional power pools, is entering a decisive phase amid a deepening global energy crisis.

The project is on-going, and the following deliverables were achieved in the period under review:

- Baseline Demand Forecast report
- Resource Assessment and Techno-Economic Data Assumption Report
- CMP platform and database report

All the three reports were based on a common methodology and tools and were validated by the five power pools on 31st March 2022 in Harare, Zimbabwe. The

participants also had an opportunity to visit the SAPP Offices in Harare.



Participants at SAPP Offices in Harare, Zimbabwe (Front)



Participants at SAPP Offices in Harare, Zimbabwe

Minimum Energy Performance Standard for Distribution Transformers

The Integrated Demand Management Working Group and United for Efficiency (U4E) held a virtual meeting on 28th March 2022 to discuss the draft Minimum Energy Performance Standards (MEPS) for distribution transformers.

U4E is currently supporting the implementation of energy efficient distribution transformer projects in eight Southern African countries, and it has developed a Total Cost of Ownership (TCO) Tool for Procurement of Energy-Efficient Distribution Transformers. The target audiences of the tool include utilities and companies that are purchasing distribution transformers.



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Transmission Pricing Model Review

The SAPP continued with the refinement of the proposed Transmission Pricing Model, (TPM).

During the period under review, the following activities were completed:

- Refinement of 8 scenarios
- Update of the asset cost database
- Testing the scenario data files with the TPM

The following activities are currently on-going:

- Model simulations
- Analysis of results by the task team

Upcoming activities are as follows:

- Calculate a trial set of TSO charges for external network use;
- Demonstration of the final tool;
- Final workshop with PSC and MSC;
- Presentation of model and results to SAPP Management and Executive Committee Members.

The project is expected to be completed by the 31st May 2022.

Update on SAPP Projects

Angola – Namibia Interconnector Project

Part 3 of the ANNA Project is in progress and the following project activities have since commenced:

- (i) Environmental activities (desktop exercise):
- Commitments Register.
 - Environmental and Social Specifications.
 - Terms of Reference (TORs) for the Resettlement Action Plan (RAP) have all been initiated.

(ii) The preliminary design updates for the Kunene substation in Namibia have also started. Two review meetings, on 7 March and 14 March 2022 have since been held with NamPower.

(iii) NamPower responded on 14 March 2022 with updated information to a data collection request sent out to NamPower and RNT on 28th February 2022 on the Market Analysis task.

(iv) The legal workstream has commenced Drafting the Joint Development Agreement (JDA), with the first draft planned for circulation to SAPP, RNT and NamPower by 7 April 2022.

Baynes Hydro-Power Plant Transmission Project

The Baynes HPP Transmission Lines project pre-implementation activities have registered progress alongside the procurement plan.

Technical Study:

Procurement of Feasibility study consultancy services have advanced into the RFP phase. A pre-proposal meeting was held on 31 March 2022, with the six shortlisted bidders to engage and collect any observations and comments on the proposed TORs and related aspects.

ESIA Study:

SwedFund issued a no-objection to the Request for Expression of Interest (REOI) that the procurement team has proposed. The REOI has since been floated to the market on 21 March 2022.

Inga-Soyo Interconnector Project

Preparation for the procurement of feasibility study and ESIA study consultants has reached an advanced stage.



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The TORs for the Technical and ESIA studies which were submitted to the World Bank for review and no-objection have been received by SAPP and updated accordingly in collaboration with RNT and SNEL.

Malawi – Zambia Interconnector Project

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

Technical Study:

The approval of the draft contract for the feasibility studies is still under consideration.

ESIA Study:

The contract negotiations with the successful bidder for the ESIA studies were held on 9 March 2022. The signing of the contract will follow once the required approvals are secured.

Mozambique – Zambia Interconnector Project

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

Techno-economic Study

The Consultant for the technical studies completed the studies in December 2021 and in March 2022, the two utilities approved the final reports. The final reports have since been submitted to the funders for final review and approval.

ESIA Study

For the ESIA, all the field studies and drafting of reports was completed by December 2021. A meeting of the utilities, SAPP and the World Bank was held on 3rd March 2022 to discuss some comments from the World Bank for the

Mozambican component. Following this meeting, the Consultant revised the reports. Approval has since been granted by EDM, SAPP and the World Bank.

Mozambique – Tanzania Interconnector Project

The Mozambique – Tanzania Interconnector Project (MOTA) is supported by the NEPAD-IPPF. The financial support is towards the techno-economic feasibility and ESIA studies for the proposed interconnector. A revised Letter of Agreement for the grant was submitted to SAPP by NEPAD-IPPF for final review before execution.

The review and update of the ToRs for the technical studies was in progress in the month under review. A joint meeting was held on 30 March 2022 to review the consolidated ToRs. Both EDM and TANESCO attended the workshop.

Zambia – Tanzania Interconnector Project

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

The status of the project has remained the same during the period under review.

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 for one site. Additional funds



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are however still required to cover the costs for the technical and ESIA studies. The review of the ToRs for the detailed ESIA studies is still ongoing.

The project was presented to potential funders during 7th PIDA Week in Nairobi which took place from 28 February to 4 March 2022.

Regional Transmission Infrastructure Financing Facility (RTIFF)

The SAPP and the Consulting Team progressed efforts across all critical workstreams during the reporting period. SAPP Management and Executive Committees were engaged and approved the proposed technical recommendations for the institutional structure and legal domicile of RTIFF, paving the way for pre-establishment analysis to be developed, and for deeper SADC and utility engagements.

Extensive engagement with the SAPP Team and other key stakeholders, including the Steering Working Group and the RTIFF Oversight Task Team were conducted to debate the draft financial and energy models, with several targeted workshops taking place in March 2022.

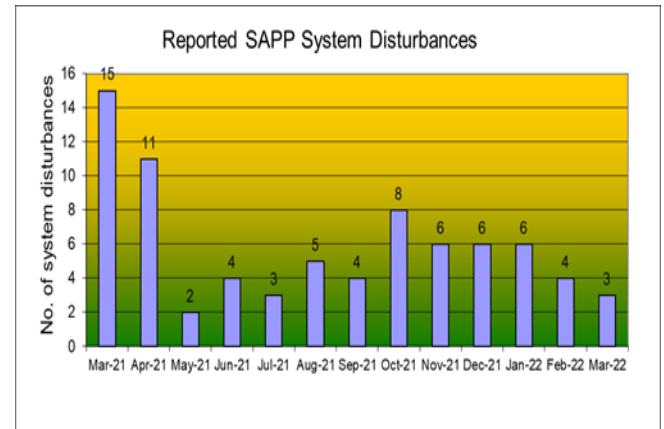
SAPP will meet with utilities to discuss opportunities and expectations while the Consulting Team, in close liaison with SAPP, will continue to engage potential funders and financiers.

System Operations

SAPP System Disturbances

In the month of March 2022, three (3) SAPP power system disturbances were reported. In the first one, the Zimbabwe power system experienced a partial collapse due to a transmission line fault. In the second one, the DR Congo southern power system collapsed due to a faulty HVDC converter system. In the

third and last one, an HVDC converter station in South Africa lost an output of about 900 MW due to tripping of converter bridges; as a result the power system frequency dropped from 50.05 Hz to 49.47 Hz. Refer to the figure below for the general outlook of reported SAPP power system disturbances.



Electricity Trading

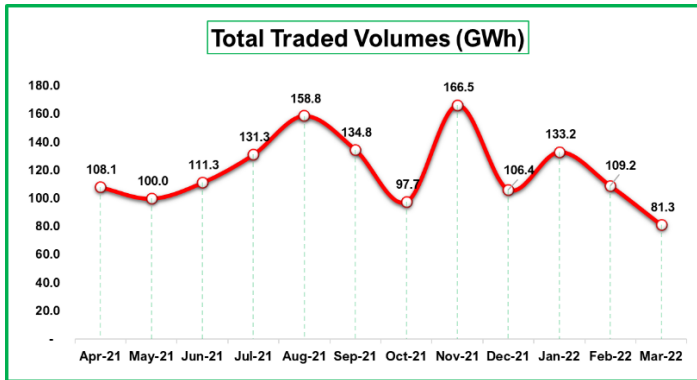
Traded Volumes

Market performance during the month of March 2022 was lower when compared to February 2022. 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 26% to 81.3 GWh in the month of March 2022, from the February 2022 volume of 109.2 GWh. The March 2022 volumes were the lowest for the 2021/22 financial year.



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

Market Revenue

A total of USD 6.7 million was exchanged on the competitive market during the month of March 2022 compared to USD 7.6 million exchanged in February 2022. The change is mainly attributed to a change in traded volumes. USD 7.2 million was exchanged on the competitive market during the same month of March in 2021.

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 March 2021, the average hourly DAM-Market Clearing Prices (MCPs) for March 2022 were similar for all the time periods. There were few participants for the IDM and FPM markets.

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.

Site Acceptance Tests were successfully conducted on 14 and 22 March 2022 and the go live date for the MTP Market Surveillance Module is scheduled for 1 April 2022.

Environmental Corner

SADC Climate Services Workshop

The Intra-ACP Climate Services and related Application (ClimSA) Programme takes place within the framework of an existing Financing Agreement between the African, Caribbean and Pacific Group of States Secretariat (“ACP Secretariat”) and the European Union (EU). The goal of the ClimSA programme is to contribute to the efforts of SADC Member States countries to adapt to climate change and climate variability by providing science-based climate prediction and information services into national and regional planning processes.

A virtual workshop was held from 28 to 30 March 2022. The objectives of the workshop were to:

- Raise awareness and inform the regional stakeholders about the SADC ClimSA project, and its outputs and its potential benefits;
- Determine climate services needs and resources (i.e. skills and equipment) amongst key stakeholders with regional mandates in the SADC region, and
- Introduce the concept of a regional User Interface Platform (UIP) and scoping preferences for awareness and facilitated discussion/co-creation of exact UIP and activities in the SADC Region - under ClimSA programme and ClimSA TA project.



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Upcoming Events – 2022

| DATE | EVENT |
|-----------------------|---|
| 4 to 6 April 2022 | LWG Meeting, Cape Town, South Africa |
| 7 April 2022 | 3rd Western Transmission Corridor meeting for Angola, DRC and Namibia, Virtual |
| 21 to 22 April 2022 | Namibia International Energy Conference, Windhoek, Namibia |
| 25 to 26 April 2022 | Hydro Power 2022, Paris, France |
| 28 April 2022 | RenPower Mozambique 2022, Maputo, Mozambique |
| 4 to 6 May 2022 | SAPP Crime Prevention Working Group (CPWG) Training Workshop and Meeting, Johannesburg, South Africa |
| 5 to 6 May 2022 | Workshop of SADC Energy and Treasury Senior Officials on RTIFF and capacity building on electricity markets |
| 24 May 2022 | 29th SADC Energy Thematic Group meeting |
| 7 to 9 June 2022 | ENLIT Africa, Cape Town, South Africa |
| 15 June 2022 | 51 st SAPP CC Board Meeting, Harare, Zimbabwe |
| 21 to 24 June 2022 | Africa Energy Forum 2022, Brussels, Belgium |
| 28 June 2022 | Stakeholders Dialogue on the Preparedness of the SADC Region Towards Energy Transition |
| 29 June 2022 | SADC Ministerial Roundtable on RTIFF |
| 13 to 16 July 2022 | APUA Meetings, Senegal |
| 26-27 July 2022 | AFSEC 8th General Assembly, Hybrid, Accra, Ghana |
| 22-26 August 2022 | IEEE Power Africa 2022 Conference, Rwanda |
| 28 to 31 August 2022 | CIGRE 2022, Paris, France |
| 5 to 9 Sept 2022 | 59th SAPP Meetings, TBA |
| 19 to 20 October 2022 | 53 rd SAPP Executive Committee Meeting and AGM, Harare, Zimbabwe |



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