



Energising the region for economic development

## CONTENTS

|  |          |
|--|----------|
| <b>Meetings, Workshops and Conferences ..</b>        | <b>1</b> |
| <i>SAPP Planning Sub Committee Virtual Meeting</i>   |          |
| .....  | 1        |
| <b>System Planning .....</b>                         | <b>1</b> |
| <i>Review of SAPP Load Forecasting</i>               |          |
| <i>Methodology .....</i>                             | 1        |
| <i>Impact of the Integration of Renewable Energy</i> |          |
| <i>Technologies on SAPP Grid – Part 2.....</i>       | 1        |
| <b>Update on SAPP Projects.....</b>                  | <b>2</b> |
| <i>Angola – Namibia Interconnector Project.....</i>  | 2        |
| <i>Mozambique – Tanzania Interconnector Project</i>  |          |
| .....  | 2        |
| <i>New Transmission Project Pipeline.....</i>        | 2        |
| <i>Luapula Hydro Electric Scheme .....</i>           | 2        |
| <b>System Operations .....</b>                       | <b>2</b> |
| <i>Impact of COVID-19 on Power System</i>            |          |
| <i>Operations .....</i>                              | 2        |
| <i>System Disturbances .....</i>                     | 3        |
| <b>Electricity Trading.....</b>                      | <b>4</b> |
| <i>Prices .....</i>                                  | 4        |
| <i>Market Revenues .....</i>                         | 5        |
| <b>Environmental Corner .....</b>                    | <b>5</b> |
| <i>The Virtual Placencia Ambition Forum.....</i>     | 5        |
| <i>Clean Energy Fund for SAPP (CEF4SAPP) ....</i>    | 5        |
| <b>Upcoming Events – 2020 .....</b>                  | <b>6</b> |

## Meetings, Workshops and Conferences

### SAPP Planning Sub Committee Virtual Meeting

The SAPP Planning Sub Committee held a virtual meeting on 23 April 2020. The objective of the meeting was to appraise members on the impact of COVID-19 and how the PSC activities would be carried out in future. The status of various projects was also updated, and the PSC activity plan was discussed.

## System Planning

### Review of SAPP Load Forecasting Methodology

The request for proposals were sent to six shortlisted consulting firms and five out of the six firms submitted their proposals. The closing date for submission of proposals was 21<sup>st</sup> April 2020. The technical evaluation of the proposals is underway.

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

A Project kick-off meeting was held with the SAPP Renewable Energy Task Team and the World Bank on 23<sup>rd</sup> March 2020 via teleconference, that marked the start of the project.

Workshop 1 took place via teleconference on 30<sup>th</sup> April 2020 and members from the Planning Sub-Committee and Operating Sub-Committee participated in the workshop. The main objective of the workshop was to review data requirements and the data collection process and to agree on key assumptions for the study.



The main content of the workshop consisted of the following components:

- An overview of the project deliverables and timeline, to introduce the SAPP members to the project,
- Introduction to generation and transmission scenarios and sensitivities,
- Discussion of each country's committed projects from data received,
- A detailed review of the project data requirements and a summary of the data that had already been received and
- Discussion and agreement of the input assumptions for the project.

### Update on SAPP Projects

#### Angola – Namibia Interconnector Project

The majority of project deliverables have been delivered. Preparation of the Final Feasibility Study Report is in progress and is awaiting finalisation and submission of the ESIA report which is planned for June 2020.

The project was originally scheduled to be completed in June 2019 but will now be completed by December 2020, primarily due to delays in the submission of environmental authorisations and approvals.

#### Mozambique – Tanzania Interconnector Project

The project implementation will involve construction of the 400kV Transmission Line between Namialo in Mozambique via Metoro to Mtwara in Tanzania over approximately 700km.

The application for funding feasibility studies together with the Project Concept Note and Project Data Sheet were submitted to the

AfDB for consideration of funding under the NEPAD IPPF.

### New Transmission Project Pipeline

SAPP has been approached to work on the following transmission projects:

- Inga – Soyo Interconnector Transmission Project (DRC – Angola)
- Malawi – Zambia Interconnector Project
- Baynes Hydro transmission integration and power evacuation
- Batoka Hydro Electric Power Project transmission integration and power evacuation

### Luapula Hydro Electric Scheme

The project is ready to proceed to the Feasibility Studies stage. Draft Terms of reference (TORs) for the Feasibility Studies have been prepared and submitted to the original project Funders for consideration.

### System Operations

#### Impact of COVID-19 on Power System Operations

In the month of April 2020, to prevent spread of the COVID-19 pandemic, the following countries experienced lockdowns: South Africa, Zimbabwe, Lesotho, Namibia, Botswana and part of DR Congo. Apart from essential services, all economic activities were shut down. People were advised to stay and work from home. States of emergency, for the same reason, were declared in Zambia, Mozambique and Eswatini. Total power system loads reduced drastically in countries that experienced lockdown. In South Africa, the minimum peak load hit a low of slightly below 15 000 MW (compare with last year's peak demand of 37 769 MW). The last time such a low load was experienced was over 10 years ago. In countries on partial lockdown loads reduced by margins of up to 5%. Most power utilities



**Southern African Power Pool (SAPP)**  
 24 Golden Stairs Road, P.O. Box EH52, Emerald Hill,  
 Harare, Zimbabwe,  
 Tel: +263-4-335517/335558 / 335468 Fax: +263-4-307023  
 Email: [info@sapp.co.zw](mailto:info@sapp.co.zw) Website: [www.sapp.co.zw](http://www.sapp.co.zw)



postponed planned maintenance activities and focused only on breakdown maintenance. All power utilities implemented enhanced security, hygiene, and emergency-alert procedures at their national control centres in accordance with guidelines from national health authorities and SAPP. The interconnected power system was in a weak and abnormal state characterised by tie line power flow deviations, high power frequencies during low loads, and high voltage profiles. In Botswana a 400 kV transmission line was put out of service for voltage control. A considerable number of generating units, especially in South Africa, were put on cold reserve, theoretically resulting in reduced power system inertia. However, the power system responded in a stable manner when on different occasions a large customer load (about 400 MW), HVDC converter bridges, and two (2) interconnectors tripped. SAPP operations personnel controlled and managed the interconnected power system prudently. Little or no transmission-system-initiated power supply interruptions to customers were experienced in most countries.

### System Disturbances

In the month of April 2020, only two (2) SAPP system disturbances were reported on the SAPP interconnected power system. In the first one, the 400 kV South Africa-Botswana-Zimbabwe interconnector tripped due to a transient fault. In the second one, a 275 kV line between South Africa and Mozambique tripped because HVAC towers were vandalised and they fell down. See pictures below. Also, see the graph below for a general outlook of reported SAPP system disturbances.

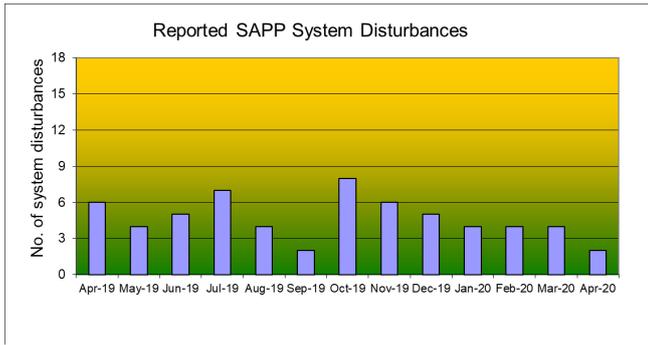


*Fallen 275 kV tower and vandalised tower member in Mozambique on one of the South Africa – Mozambique interconnectors*



**Southern African Power Pool (SAPP)**  
 24 Golden Stairs Road, P.O. Box EH52, Emerald Hill,  
 Harare, Zimbabwe,  
 Tel: +263-4-335517/335558 / 335468 Fax: +263-4-307023  
 Email: [info@sapp.co.zw](mailto:info@sapp.co.zw) Website: [www.sapp.co.zw](http://www.sapp.co.zw)





General outlook of reported SAPP system disturbances

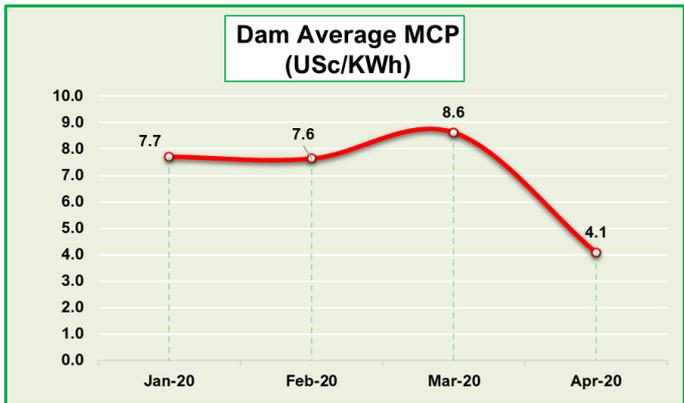
figure of 10.2 USc/KWh. Off Peak market clearing prices also remained unchanged from the March 2020 figure of 5.3 USc/KWh.

**FPM Weekly Prices**

The average market clearing price for the peak period was lower by 28% at 15.4 USc/KWh in April 2020 from the March 2020 figure of 21.5 USc/KWh. Standard period average prices decreased from the March 2020 figure of 9.6 USc/KWh to 7.1 USc/KWh in April 2020. The average off-peak price decreased from 5.0 USc/KWh in March 2020 to 3.4 USc/KWh in April 2020.

**Day Ahead Market**

The monthly average DAM market clearing price (MCP) was lower during the month of April 2020 at 4.1 USc/KWh when compared to 8.6 USc/KWh recorded in March 2020.



Daily Average MCP prices from April 2019 to April 2020.

As can be seen from above figure, there was a sharp fall in market clearing prices. This is largely due to the decline in power demand due to the lockdowns initiated by SAPP member countries to manage the COVID - 19 pandemic.

**Intra Day Ahead Market (IDM)**

The average IDM price for the peak period for the month of April 2020 was 6.1 USc/KWh, down from the March 2020 figure of 9.1 USc/KWh. The average IDM price for the

**Electricity Trading**

Trading on the market was higher during the month of April 2020 when compared to March 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) increased by 25% to 120 GWh in the month of April 2020, from the March 2020 volume of 89 GWh. The April 2020 traded volume was higher by 7% when compared to April 2019 in which traded volumes were 112 GWh.



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

**Prices**

**FPM Monthly Prices**

Non off-peak market clearing prices remained unchanged from the March 2020



**Southern African Power Pool (SAPP)**  
 24 Golden Stairs Road, P.O. Box EH52, Emerald Hill,  
 Harare, Zimbabwe,  
 Tel: +263-4-335517/335558 / 335468 Fax: +263-4-307023  
 Email: [info@sapp.co.zw](mailto:info@sapp.co.zw) Website: [www.sapp.co.zw](http://www.sapp.co.zw)



standard period in April 2020 was 3.6 USc/KWh. The average off-peak period price decreased from 2.9 USc/KWh in March 2020 to 2.3 USc/KWh in April 2020.

### Market Revenues

A total of USD 5 million was exchanged on the competitive market during the month of April 2020 when compared to a total of USD 7 million exchanged in March 2020. The change is mainly attributed to the drop in prices in the month of April 2020 when compared to March 2020. USD 6 million was exchanged on the competitive market during April in 2019.

### Environmental Corner

#### The Virtual Placencia Ambition Forum

The SAPP participated in the Virtual Placencia Ambition Forum, at the invitation of Wilton Park of the United Kingdom from 20 to 22 April 2020. The Forum brought together major actors in the climate change negotiations around a central theme of increasing ambition and a focus on safeguarding the Paris Agreement. The Forum was hosted by the Government of Belize as the Chair of the Alliance of Small Island States (AOSIS). The Forum aimed to reinvigorate the common agenda of driving climate action and ambition in Nationally Determined Contributions (NDCs) in the lead up to COP26 and beyond, in the context of the current COVID-19 pandemic.

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 the climate crisis. Climate smart transitions must be at the heart of recovery from the current 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.

High level discussions revealed the following salient issues:

- This remains the only decade to escape the dire consequences of climate change if the existing status in response to it continues.
- Paris Agreement ought to be fulfilled with attainment of carbon negative nations into the future and presentation of more robust commitments by major economies.
- Global efforts in resolving the impacts of COVID-19 puts us in a better position to address climate change, cognisant of the universal health gains of addressing it and the associated financial implications.
- Enhancing mitigation and adaptation interventions to promote low carbon development, backed by science-based decision making remains at the core of climate change response.
- The outcomes of science-based interventions require systematic evaluation that supports adaptive transformation to ascertain effectiveness.
- COVID-19 and climate change reveal the vulnerability of the planet we live in and therefore, cooperation, information exchange and transparency cannot be overemphasised. Addressing the impacts, taking cognisance of this vulnerability, is a moral obligation and
- It was noted that we share a fragile planet and climate change remains an existential issue. We need to act now.

#### Clean Energy Fund for SAPP (CEF4SAPP)

The revised concept note with respect to the CEF4SAPP was submitted to the Development Bank of Southern Africa



**Southern African Power Pool (SAPP)**  
 24 Golden Stairs Road, P.O. Box EH52, Emerald Hill,  
 Harare, Zimbabwe,  
 Tel: +263-4-335517/335558 / 335468 Fax: +263-4-307023  
 Email: [info@sapp.co.zw](mailto:info@sapp.co.zw) Website: [www.sapp.co.zw](http://www.sapp.co.zw)



(DBSA), who are accredited under the Global Climate Fund (GCF). Meetings were held between DBSA and the Consultant, GFA.

The GCF approach will continue to run in parallel with the Transformative Carbon Asset Facility (TCAF) mechanism, under the auspices of the World Bank.

### Upcoming Events – 2020

| DATE                 | EVENT  |
|----------------------|--|
| 5 May 2020           | SADC Energy Thematic Group Meeting, <b>Virtual</b>                                   |
| TBA                  | 48 <sup>th</sup> SAPP Executive Committee Meeting                                    |
| 11 June 2020         | 43 <sup>rd</sup> SAPP CC Board Meeting, Harare, <b>Zimbabwe</b>                      |
| 1 – 3 September 2020 | 55 <sup>th</sup> SAPP Meetings, Maseru, <b>Lesotho</b>                               |
| 2 September 2020     | 44 <sup>th</sup> SAPP CC Board Meeting, <b>Lesotho</b>                               |
| Sept 2020            | SADC Joint Energy and Water Ministers' Meetings, <b>Tanzania</b>                     |
| 14 -18 Sept 2020     | Power Africa Week, Johannesburg, <b>South Africa</b>                                 |
| October 2020         | SADC Energy Thematic Group Meeting, Gaborone, <b>Botswana</b>                        |
| 20-22 October 2020   | Africa Energy Forum, <b>Amsterdam</b>  |
| 29 October 2020      | 49 <sup>th</sup> SAPP Executive Committee Meeting and SAPP AGM, Kinshasa, <b>DRC</b> |
| 27 November 2020     | 45 <sup>th</sup> SAPP CC Board Meeting, Harare, <b>Zimbabwe</b>                      |



**Southern African Power Pool (SAPP)**  
 24 Golden Stairs Road, P.O. Box EH52, Emerald Hill,  
 Harare, Zimbabwe,  
 Tel: +263-4-335517/335558 / 335468 Fax: +263-4-307023  
 Email: [info@sapp.co.zw](mailto:info@sapp.co.zw) Website: [www.sapp.co.zw](http://www.sapp.co.zw)

