

Mediclinic, CSIR part of energy storage and alternative solutions: Enlit Africa

Issued by [Enlit Africa](#)

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Practical case studies, success stories and discussions on energy storage and alternative energy solutions will be featured in free-to-attend sessions at the upcoming [Enlit Africa](#) conference and expo, taking place from 16 to 18 May in Cape Town.



“As the energy market evolves, the need for more storage will be crucial for the future stability of the grid,” says Chanelle Hingston, portfolio director, Power and Energy for the Vuka Group, producers of Enlit Africa. “The intermittent nature of weather-dependent resources requires a component to capture and store excess energy for periods of high demand. That component is energy storage, which can help improve the stability and resilience of the electricity grid.”

Mediclinic to become carbon neutral by 2030

Petrus Swanepoel, Mediclinic’s Infrastructure Sustainability manager will unpack how his company has dealt with South Africa’s energy challenges in a presentation at Enlit Africa titled ‘How to prepare for a successful storage project: Building the business case’.

“Our strategy is changing,” says Swanepoel, “and we are investigating maximising renewable energy and installing as many PV panels as possible. Yes, we will have excess power and we want to use that excess power and store it in batteries and use these batteries during off-peak times, during load shedding times or going forward, and if we are lucky and there is no more load shedding, we want to use that battery storage in peak times to absorb the expensive costs of electricity during peak periods.”

He continues: “We have also embarked on a wheeling strategy, whereby we buy off site renewable energy. That’s more of a long-term strategy. The market is developing at this stage, but to make sure that, at the end of the day, we cover our load onsite with renewables, our remaining part will be covered by off site renewables in the form of wheeling. We have a global strategy to become carbon neutral by 2030.”

The 'just' in the just energy transition

Only 1% of the R1.5tn earmarked in the Draft Just Energy Transition Investment Plan is earmarked for skills development; this is according to Aradhna Pandarum, the acting research group leader at the Energy Centre of the Council for Scientific and Industrial Research (CSIR). At the upcoming Enlit Africa in Cape Town from 16 to 18 May, she is an expert panellist in a discussion on 'The economics of energy storage'.

“If we look at the Renewable Independent Power Producer Procurement Programme (REIPPPP),” says Padarum, “it has been developed for over 10 years now, but, if we look at the current local capacity of doing that in South Africa without private, external private sector investment, we don't have the skills to do it.”

She adds: “If you look at battery storage, just lithium ion in itself; at the moment, it's predicted that it will create more jobs than renewables, and that is quite significant in terms of what we need to be doing, especially if we are transitioning. And it shows that we need to consider all of these aspects holistically when we are selecting different technologies and different pathways for the energy transition to ensure a just energy transition.”

Waste going to waste

“Dark fermentation provides a unique opportunity to democratise energy in a way that ensures energy and food security,” states Dimitris Symeonidis, project manager and policy advisor for Afforest for Future, who will present his research on the public private partnership (PPP) opportunities in this technology at Enlit Africa.

He explains: “The advantage of dark fermentation is that it can actually generate biohydrogen from any kind of biomass. Essentially, it's a simple process. It can also store energy in the form of hydrogen.”

Symeonidis, who is also a policy leader in the Young leaders in Energy and Sustainability of Europe (YES-Europe), believes the dark fermentation technology is of “immense value to the African continent” as the continent has a lot of food waste and biomass, such as algae and seaweed. “Many people might think that waste is a European or Northern American problem,” he says, “but this is not really the case. We see, for example, that Nigeria, Kenya and Ethiopia are among the top 10 countries in terms of food waste. These countries have the means to generate a substantial amount of biomass that just goes to waste. So, we can utilise that.”

In addition, countries like Namibia and Tanzania are already exploring algal biomass and seaweed cultivation developments. “We can use river bodies, such as the river Congo, to use freshwater algae or aquatic plants, which are also abundant,” Symeonidis explains, adding that projects can vary from serving small rural communities to large, regional plants.

“Reliable power for basic needs”

Hingston agrees that an important positive spinoff of energy storage in the African context is its role in promoting energy access and equity. “Specifically in areas with limited or no access to grid electricity, energy storage enables the deployment of off-grid or mini-grid systems. Even a small energy storage system provides reliable power for basic needs, such as lighting, cooking, and powering appliances.”

“We are already seeing great results from renewable energy plants (no matter the size) that includes a storage component. The results are improved quality of life, stimulating economic development, and bridging the energy access gap for underserved communities, contributing to a just energy transition that is already playing out on the continent.”

More information from the interviews with several expert speakers is available on [ESI Africa](#).

Enlit Africa's programme focusing on energy storage and alternative energy solutions is paying particular attention to the priorities of the commercial and industrial sector, security and stability of power supply.

More speaker and topic highlights include:

- **The economics of energy storage** panel discussion

Panellists:

Gaylor Montmasson-Clair, senior economist: Sustainable Growth (Trade and Industrial Policy Strategies), Experience, Trade & Industrial Policy Strategies (TIPS), RSA

Louise Paulsen, vice president: Renewables, Sasol, RSA

Aradhna Pandarum, acting research group lead and principal researcher – Energy Center, Council for Scientific and Industrial Research (CSIR) - Energy Centre, RSA

Sibongile Mazibuko, deputy director: Invest SA, Department of Trade and Industry, RSA

- **Unpacking energy storage applications as transmission and distribution asset**

Thabelo Mamphogoro, Postgraduate School of Engineering Management, University of Johannesburg, Johannesburg, RSA

- **Mini-workshop | Understanding the fundamentals of electricity wheeling in a multi-stakeholder environment**

Moderator: Joanne Dean, board member and spokesperson, South Africa Energy Storage Association

Facilitators:

Senior representative, City of Cape Town Electricity, RSA

Shirley Salvoldi, corporate specialist Electricity Pricing, Eskom, RSA

Roak Prinsloo, senior Technologist, Projects planning and renewable energy, Nelson Mandela Bay Metropolitan Municipality, RSA

Industry support

As a longstanding must-attend date on the annual energy industry calendar, Enlit Africa is once again sponsored by leading technology and services providers, including ACTOM, G3-PLC Alliance, Conlog, Elsewedy Electric, Prime Alliance and South Pole.

The City of Cape Town is the host city, the South African Department of Mineral Resources and Energy is the host ministry, while Eskom is the host utility with Frost and Sullivan as a knowledge partner.

[ESI Africa](#) is the official host publication. It will launch this year's Issue 1 and the 2023 African Power & Energy Elites at the conference.

To register for a free visitor pass, click here: <https://wearevuka.com/energy/enlit-africa/ticket-options/>.

About Enlit Africa

Enlit Africa (formerly African Utility Week and POWERGEN Africa) is Africa's leading exhibition and conference, gathering the power and energy industry's most influential professionals and decision makers from across the continent for three days of relevant, accredited technical and strategic conference seminars, valuable networking opportunities and access to world-class products and solutions.

Enlit Africa is organised by [Vuka Group](#), which has more than 20 years' experience in serving the business community across Africa. Formerly known as Clarion Events Africa, a leading Cape Town-based and multi-award-winning organiser of exhibitions, conferences and digital events in the infrastructure, energy, mining, mobility, ecommerce and CX sectors, Vuka is an independent B-BBEE compliant company, adapted to the unique conditions of Africa. Recently, Vuka successfully launched the exciting [Africa's Green Economy Summit](#) as part of the E-Fest in Cape Town that culminated in the historic Formula E race, a first for the continent. Other well-known events by Vuka Group include [DRC Mining Week](#), [Nigeria Mining Week](#), [DRC-Africa Battery Metals Forum](#), [Smarter Mobility Africa](#), [ECOM](#) and [CEM Africa](#).

Enlit Africa dates and venues:

Live in-person conference and exhibition: 16 to 18 May 2023

Venue: CTICC, Cape Town, South Africa

Website: <https://enlit-africa.com/>

Facebook: <https://www.facebook.com/EnlitAfrica>

Twitter: <https://twitter.com/EnlitAfrica>

LinkedIn: <https://www.linkedin.com/company/enlit-africa/>

Instagram: https://www.instagram.com/enlit_africa/

▪ **Enlit Africa: Shedding light** 5 May 2023

▪ **Mediclinic, CSIR part of energy storage and alternative solutions: Enlit Africa** 26 Apr 2023

▪ **Power trip: SA's imperative and the continent's other energy crisis** 24 Apr 2023

Enlit Africa



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