

AMEU new leadership to usher in energy 4.0

With all the talk around the 4th industrial revolution, it's no surprise that the AMEU Convention includes a focus on the energy revolution taking place within South Africa. ESI Africa spoke to the incoming President and new Vice President Elect of the Association to learn more about the trends shaping the sector.

As the industry digitalises and distributed generation becomes more popular, municipal business models need to accommodate the disruptors that comprise energy 4.0 and explore new revenue streams, Refilwe Mokgosi, AMEU's incoming president, and Jayshree Pershad, AMEU Vice President Elect, weigh in on these all important issues.

Refilwe, how would you define the energy revolution taking place in South Africa?

Among other things, it's a transformation from traditional fossil fuel to renewable energy sources. The climate change crisis has forced this and created an opportunity for private sector participation beyond the current supply industry model. It's an energy evolution that has stimulated economic activities in the manufacturing and sales of renewable energy products. Commercial and residential customers are now able to realise huge energy savings from monthly bills. This is achieved by installing equipment driven by renewable energy sources. On the other hand it has encouraged innovative ideas in the manner of how electricity distributors (Eskom, municipalities) service their customers.

Do you see the electricity market in South Africa becoming more competitive?

The electricity market is already competitive. Consumers are going off-grid, deploying alternative sources of energy and technology beyond what municipalities can provide. That is competitive in the sense that it threatens electricity kWh sales. Municipalities have also opened their doors to small scale embedded generation application. Currently

rooftop solar photovoltaic (PV) is dominating especially in the Gauteng Province, with installation occurring mostly at malls, business parks and parking areas.

The City of Tshwane has one of the largest commercial biogas facilities in the country (+/- 4.6MW). The energy revolution therefore supports new business ventures for positive and progressive citizens. This change is perceived as a threat based on the current distribution business model, which is unidirectional (generate, distribute and sell) making electricity the sole revenue source. However, this is an opportunity for positive implications such as removing some of the network pressures on Eskom and municipalities, whereby end users generate and distribute electricity.

Jayshree, what does grid modernisation mean for a municipality and what is needed for this transition?

The fundamentals of grid operation have not changed materially over the last decade; however, the demands placed on the grid have substantially increased in line with modernisation of society. Modernisation of the grid can be described as a means of building intelligence and resilience to the flow of electricity. Examples of modern grids include elements of smart infrastructure, advanced two way

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