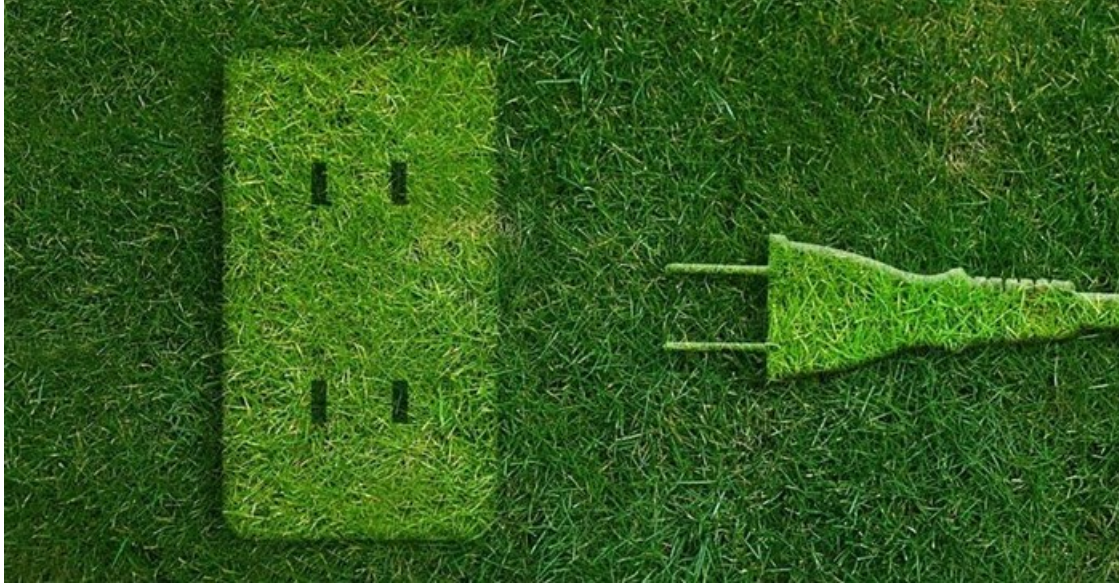


Delivering energy solutions for African economies

 By [Nicci Botha](#)

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The golden thread stitching together the keynote presentations on the second day of African Utility Week was undoubtedly the need to tap into Africa's vastly underutilised renewable energy resources to support the potential for economic growth and social upliftment.



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Energy trilemma

First up, David Walker, CEO DNV GL: Energy, discussed what he referred to as the energy trilemma, namely affordability, reliability and sustainability.

He said Africa had huge potential to develop renewable energy, particularly when it comes to solar and wind power, but these were still not being exploited to the full. One of the challenges is how quickly this transition to renewables can be made, as one of the areas of resistance is from the suppliers of traditional energy suppliers such as oil and coal, of which there is an abundance in Africa.

Hydro energy is another option for the continent, but it can be prohibitive in terms of cost and the scale of the project. On the other hand, hydro-electrical schemes can foster greater regional cooperation between countries. He cited The Great Ethiopian Renaissance Dam project in Ethiopia, which will also benefit Egypt and Sudan.

"There is no point in installing renewables without concurrent expansion of the existing grid to provide a reliable and sustainable electricity supply," Walker said.

In addition, it is important to look at different models in terms of affordability as the African economy grows, with a long-term focus on public-private partnerships.

This is Africa's time

The economic crystal-ball gazers have predicted that the economies in Africa will quadruple by 2040. For this to become reality there has to be substantial investment in Africa's energy resources.

"Without investment into the energy sector we won't see economic growth projections. They will remain just that - projections," said Amos Hochstein, US Special Envoy for International Energy Affairs.

Hochstein's enthusiasm for investing in African energy is contagious, as is his advocacy for the Power Africa initiative launched by President Barack Obama two years ago.

"We don't want to underestimate the level of investment that is needed. We are looking at \$600,000bn to bring power to 300,000 million people. Unless something is done, Africa won't keep pace, so it needs to be a global effort," he explained.

"We need to make rural electrification a priority. First by government implementing tariffs, then by introducing donor funding. The next step would then be to unbundle local companies and creating frameworks for tariffs," Hochstein said.

He added that when we look to addressing challenges, we should see them as an opportunity.

"There is not enough money in government to solve the power problem. In fact, no government in the world has enough money to finance this type of investment. The role of government is to create framework for private companies to come in and invest," Hochstein said.

"This is a revolutionary time in energy - there have been more advances in technology in the last 10 years than in the last 100. The direction of this investment is pointing towards Africa. This should be Africa's time. Quadrupling the continent's economies by 2040 should not be a goal but a milestone," he concluded.

Light for All programme

Through its Light for All programme, Brazil has managed to provide access to electricity to a total of 98.73% of the country's households, many of them in rural areas isolated by the expanse and inaccessibility of the Amazon rainforest.

Supplying electricity in such challenging situations called for some innovative thinking. For instance, the only way to get the infrastructure into some of the region was by boat or helicopter, so lightweight fibreglass poles were a better option than the standard cement poles.

"There is a direct correlation between human development and access to electricity. In 2003, the federal government created the programme with the initial goal of supplying electricity to two million families from January 2004 to February 2015. In 2009, the project was expanded to include more than three million families," said Hugo Lumin, Public Services Regulation Specialist: Brazilian Electricity Regulatory Agency.

This has seen better access to education and an overall improvement in quality of life in poor communities.

The total investment was equivalent to R22.7bn, which was originally financed by the government, but this amount was repaid over the years by the communities and users.

Fundamentally, for Africa to meet its economic growth projections, it needs significant investment in its energy infrastructure and harnessing its renewable energy wealth. It will also go a long way to improve the quality of life of the continent's citizens. And by all accounts, it can be done, as seen in the Brazilian and other global examples.

African Utility Week is being held at the CTICC in Cape Town, 12-14 May 2015. For more info, go to www.african-utility-week.com.

ABOUT NICCI BOTHA

Nicci Botha has been wordsmithing for more than 20 years, covering just about every subject under the sun and then some. She's strung together words on sustainable development, maritime matters, mining, marketing, medical, lifestyle... and that elixir of life - chocolate. Nicci has worked for local and international media houses including Primedia, Caxton, Lloyd's and Reuters. Her new passion is digital media.

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