

New THEnergy-Voltalia report: Renewables for mining in Africa enter the next stage – Focus shifts to cost optimization

After various projects have demonstrated the value of renewables for reducing diesel, HFO and gas consumption, mining companies now benefit from a significant cost reduction potential

Paris/Munich, February 1st, 2019 — In the last few years, more and more mining companies have adopted wind and solar systems to reduce their energy costs at remote off-grid mines. In this first phase, the initial focus was on the integration capabilities as miners were afraid that adding intermittent renewables such as solar and wind could affect the reliability of power supply and even lead to production losses.

In various microgrid applications, renewables combined with diesel, HFO, or gas have proven to provide reliable power supply to remote mines.



For almost all mines, the integration of renewables will have a positive impact on their energy cost position. Mining companies do not have to invest their own money; independent power providers (IPPs) invest in the renewable energy infrastructure and sell electricity to mines through power purchase agreements (PPAs).

"This second market phase is characterized by price competition", explains Thomas Hillig, managing director of THEnergy. "With the support of a leading renewable energy player, the new report analyses how IPPs can offer extremely competitive PPAs to remote miners."

Large IPPs take advantage of economies of scale on components for solar and wind power plants not only for remote mining projects but also for much bigger grid-connected plants. Market leaders have managed to optimize the planning and construction processes substantially. However, conducting projects in remote locations, especially in Africa, requires an extended experience. Amongst the challenges of undertaking projects in Africa is financing, which requires an excellent relationship with local and international banks.

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Cost optimization does not necessarily mean minimizing CAPEX but rather focusing on the total lifetime of the project and including O&M. It is also important to take the interplay of the different energy sources into consideration. Not every kWh of solar and wind energy generated means equivalent fossil fuel savings. When gensets run at suboptimal loads, they lose efficiency and require additional maintenance.

"During the last 14 years, we have gained experience in renewable energy projects including solardiesel hybrid microgrids, projects in remote locations and in developing countries", points out Alexis Goybet, Head of Hybrid Solutions at Voltalia. "Our experience adds up to our economies of scale in procurement and translates into significant overall cost-reductions in the range of 20-30% in comparison to new market entrants."

These overall cost reductions will make solar and wind energy extremely attractive for many mines. The number of remote mines that add renewables to diesel, HFO or gas is expected to grow quickly all over Africa.

For further information and detailed results, please have a look at the report: https://www.th-energy.net/english/platform-renewable-energy-and-mining/reports-and-white-papers/

About Voltalia (www.voltalia.com)

- Voltalia is an international player in the renewable energy sector. The Company produces and sells electricity generated from wind, solar, hydro, biomass and storage facilities, with a total capacity of 911 MW either in operation or construction as of today.
- Voltalia is also a service provider, assisting its investor clients active in renewables at each project stages, from conception to operation and maintenance.
- With 550 employees in 18 countries over 4 continents, Voltalia is able to act worldwide on behalf of its clients.
- Voltalia has been listed on the Euronext regulated market in Paris since July 2014 (FR0011995588 VLTSA) and is a component stock of the Enternext Tech 40 index and the CAC Mid&Small index. The Group is also included in the Gaïa-Index, an index for socially responsible midcaps.

About THEnergy

THEnergy is a boutique consultancy founded in 2013 focusing on microgrids/mini-grids and offgrid renewable energy. For industrial companies, THEnergy develops energy concepts and shows how to become more sustainable – combining experience from conventional and renewable energy with industry knowledge in consulting. THEnergy also advises investors and energy companies regarding renewable energy opportunities in rapidly changing markets. The initial focus was on commercial and industrial offgrid renewable energy projects, for example in mining (th-energy.net/mining), hospitality, telecommunications or on islands (th-energy.net/islands). Driven by investor needs, rural electrification and energy access have become additional consulting focusses. THEnergy has led several large-scale due diligence processes in rural electrification.

Contact for journalists:

THEnergy - Dr. Thomas Hillig +49-152 3618 6442 press(at)th-energy.net

For images visit: http://www.th-energy.net/english/media-press