

## **Going off-grid is not the solution to escape load shedding for commercial and industrial businesses**

*18 October 2019:* Eskom once again implemented stage 2 load shedding this week, as the utility is experiencing severe generation capacity challenges. While this announcement has prompted some businesses to consider taking their operations entirely off-grid, there are solutions that are much more viable at this time.

This is according to Manie de Waal, CEO of Energy Partners Solar, who says that 100% off-grid energy solutions are not a feasible alternative for commercial and industrial operations yet, but that it is still crucial to explore ways to ensure security of supply regardless of the state of load shedding in the country.

“Load shedding is a massive business risk that will unfortunately only get worse in South Africa. Nelisiwe Magubane, an Eskom director, was quoted as saying that even a 0.1% rise in economic growth could result in outages – which is a very unsettling statement, given how dependent the majority of businesses are on grid-based power for growth. If the country enters into another prolonged period of load shedding, we can be assured that scores of companies will be forced to close their doors.”

De Waal notes that the only sustainable solution in the current economy is a diversified energy portfolio. “An integrated system that combines grid-based electricity, alternative generation sources such as solar power, and generators and/or batteries (referred to as an energy centre), is the only way for businesses to stay competitive in the years to come.”

He explains that complete off-grid solutions are only viable for businesses in very unique cases. “Commercial and industrial businesses often do not have the available space to generate enough energy to power 100% of their operation’s electrical needs. Added to that, the business would require either a battery system or generator in order to store energy for night-time usage. Both of these options come at quite a high cost when compared to grid-based tariffs at the moment.”

Currently, an integrated system is the best option for continuous operation. “A grid-tied solar photovoltaic (PV) system provides the cheapest cost of energy, however it is not a standalone solution during a grid outage. Integrating a generator or battery to support the business during load shedding, ensures security of supply.”

De Waal adds that a PV system should ideally supply the bulk of the power during load shedding in peak daylight hours, while a generator either idles on standby or runs at reduced capacity to provide additional power. “The alternative is to implement a battery storage system in conjunction with the PV system. However, the capital outlay for the latter is still high, so the capacity of such a system would be limited.”

De Waal says that having a long-term partner when embarking on a diversified energy portfolio is crucial. “The integration of these energy centres is a highly technical operation and they require dedicated service providers who can design, install and monitor its performance. Outsourcing this to an experienced service provider is therefore a prerequisite.”

He explains that the advantage of engaging with a service provider such as Energy Partners Solar, is that the company can provide entirely outsourced solutions that require no capital investment from the client. “Businesses have the option of paying for renewable energy as a utility by partnering with service providers on the basis of a Power Purchase Agreement (PPA). It offers the cost-saving benefits of renewables without the asset risks associated with actually owning the system.”

Depending on site details (such as usage profile, location, and current infrastructure), the cost electricity for reliable power from the energy centre could be between R1.50 and R2.50 per kilowatt-hour. This price would include the maintenance of the system.

De Waal states that businesses need to view load shedding as an ongoing threat to their continued operation. “It is vital to the long-term survival of every company to engage with capable service providers and ensure they have affordable, uninterrupted power in the coming years,” he concludes.