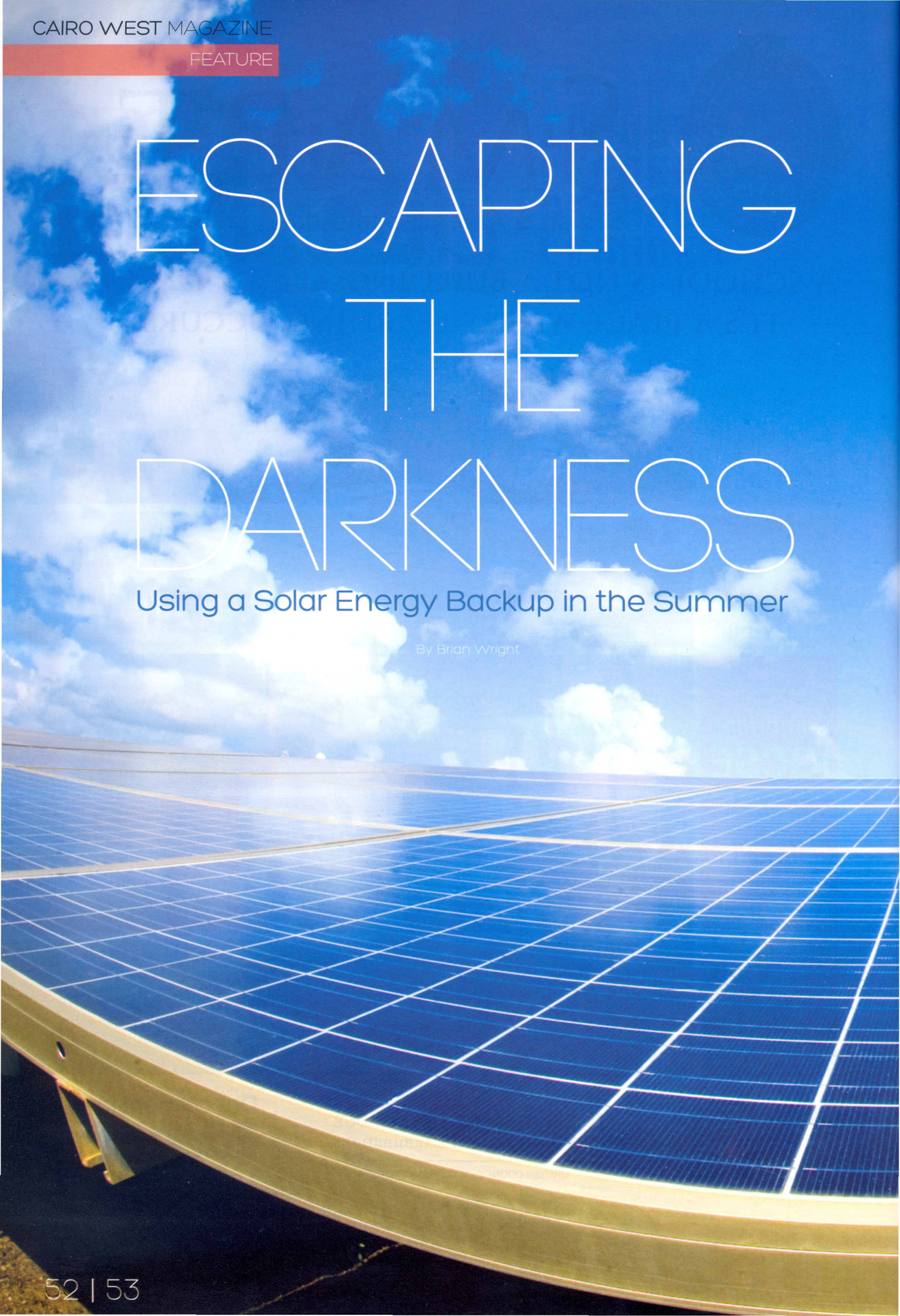


ESCAPING THE DARKNESS

Using a Solar Energy Backup in the Summer

By Brian Wright



If all estimates provided by the government are correct, 2013 is going to be a very dark summer. Starting at the end of March or the beginning of April homes, businesses, and industries can expect regular power cuts that could reach an average 3-4 hours per day during the peak summer hours. This crisis is due to a number of issues including chronic natural gas shortages, a lack of investment in the country's power sector, meaning that most old plants have not been upgraded in decades, and the fact that most new power plants can take up to five years to become fully operational.

To offset this shortage, many private homes and villas have begun seeking other ways to find power, and diesel generators have to date become the backup of choice. This is not without its own set of problems, however, with regular diesel shortages since the revolution and a noise level that can sometimes be a nuisance for residents. Fortunately, there is another option available right here in Egypt that offers a clean, quiet, and environmentally-friendly way to generate power: solar panels.

Although widespread in Europe and regionally as well, solar power is still a new concept to most in Egypt, with the first large-scale government solar project still just barely getting off the ground. However, there are a number of companies that have already begun working in the field and are presenting a range of new solutions to both businesses and private homes alike. One such company, Onera Systems, a subsidiary of Middle East Engineering and Telecommunications (MEET), is based in the industrial park of 6th of October City. To find out more, *Cairo West Magazine* sat with Wael El-Nashar, President and CEO of Onera Systems.

CWM: How did you get started in the field of solar energy?

WN: I have been working with solar power since the early 1990's. I can still clearly remember the first project I handled personally: powering a billboard ad for Tarek Nour in 1990. Ever since, I have been a player in the field and have followed its developments.

Onera Systems, however, is a much newer company with operations in countries around the region including Egypt, Morocco, Nigeria, Saudi Arabia, Iraq, Algeria, and Lebanon. Onera researches, develops, and installs systems for businesses, governments and private homes. For example, we recently completed a project in cooperation with the European Union to provide 150 homes and street lights for a new Bedouin settlement, completely off-grid and only provided through solar energy. In total, we have installed 600 complete solar sites that are 100% off the main electricity grid.

What is SolGuard and how does it work?

SolGuard is a product that we provide for private homes and it is meant to act as a backup to the current electric system. Let's say that you are currently using around 10 KW of electricity in your home and you have our 5 KW system installed. When the electricity is on, 5 KW comes from the sun, and the other 5 from the main electric grid. When the power cuts, all 10 KW will come directly from the sun. At night, when the power is on you will take 10 KW of electricity from the grid, and if the power cuts the 10 KW will come from the batteries that are part of the solar system. Basically, SolGuard allows you to have power for the maximum amount of time possible and can get you through those cut-off periods.

What capacities are available with SolGuard and how much does it cost?

We have developed 40 applications for SolGuard to meet different needs. Our smallest system provides 5 KW of electricity and provides a half hour backup at full capacity. 5 KW is roughly two full rooms with air conditioning and basic electronics. This system costs around 90,000 EGP, however the price does change according to international exchange rates as around 60% of the parts for the system are brought in from abroad.

Don't you think that this price is rather expensive?

For apartments of course it is, which is why we are focusing on marketing mainly to private villas. Our main competitors are diesel generators, where the price difference is not that great especially when you add the cost of fuel. Actually, in just a few short years the savings in your electricity bill make the solar system pay for itself. In addition, you don't have to cope with diesel shortages or the pollution made by the generator. Finally, solar is a very quiet source of energy which means that you can rest easy without the constant vibrations and noise found with a diesel system.

Are there plans to introduce solar power to the rest of Egypt?

In August 2012 MEET presented a plan to the government that proposes a solution to make solar power one of the country's main sources of energy by 2027. Although currently expensive, through a system of incentives and government support the industry can get going and begin to drive down costs locally, whilst creating around 70,000 high-tech jobs in the meantime. The creation of a local industry will reduce costs, and could by 2020 make solar power actually cheaper than natural gas, which currently constitutes around 80% of the country's electricity production. Cleaner energy in general is the way to the future for Egypt, and I hope that the government will soon begin to realize that this can be a win-win situation for all.

For more information, contact:

Onera Systems

Tel: 02 3829 0290

Website: www.onerasystems.com

Facebook: www.facebook.com/OneraSystems