



Future Energy ... Today



Corporate Brochure



## At a Glance

Following its ambitious to move into plan new business dimensions, coupled with its visions to diversify activities and its belief in specialization, OneraSystems has been created by MEET Egypt to be its successor in practice in the renewable energy business, while MEET Egypt will act as the holding company.

OneraSystems is mainly focusing on providing clean, efficient and reliable energy to be burgeoning business to the population of the Middle East by providing integrated solutions, as well as integrating solar energy sources with, Fuel Cells & Wind Turbines. With virtually the same top management, OneraSystems is acquiring all expertise and know how in the field of Renewables to hit the road running.



## Our Future

## A Catalyst For Change



From bridging the failures of the traditional energy systems to developing leading-edge renewable energy sources, we are focused at work, seeking innovative ways to produce efficient and reliable power.



OneraSystems aims to turn the energy market upside down – and help Egypt achieve a future that's powered purely by renewable energy. There's a lot to do. It involves changes at almost every stage of the energy generation process, from windy beach front to a finger on a light switch. But we know what needs to be done and we know how to do it. OneraSystems believes that energy provisioning doesn't need to be complex and mysterious. It can be generated independently by innovative individuals and groups across the country utilizing the abundant natural resources that surround them.

Putting power in the hands of the people and bringing energy generation into the community means consumers have a closer and more intelligent relationship with Technology. When people understand where energy comes from and have a sense of ownership, they will value it more and efficiently use. Energy that's local, natural and renewable is energy that is secured for future generations.

**Together we can do this.**



## A View on the next Energy Generation Technologies

Since the industrial revolution 200 years ago, mankind has relied on fossil fuel; however, the time has come to believe in new stable sources of energy. However, there is no such thing as perfect as fuel. All energy sources feature a number of benefits, risks and trade-offs. In the near future, the world will need every available form of energy that can be generated in an environmentally and economically sustainable manner to meet demand.

Thanks to technological enhancements, the usage of the Photovoltaic Solar Systems has become not only limited to remote zones, but extends to include the green buildings in the urban zones as well. Apart from the fact that the green buildings are environment friendly, it grants self reliance in generating the required energy which will release the overload on the public electricity grid.



### Our Business

## Empowering the world through innovative energy solutions

OneraSystems is a full service manufacturing and distributing company, specializing in Renewable System Integration, research and development, providing energy solutions for installers, builders, distributors and contractors for commercial and residential applications. Moving beyond traditional measures of operation in the trade by designing new, innovative products and standards, we are the next generation of energy.



Our services include; system design, sales, product training for professionals and building inspectors, and much more. OneraSystems's goal is to facilitate the transition from traditional carbon-emitting energy production toward a sustainable future.



## Our Products

### PV Solar Systems:

**OneraSystems** has been able to evolve as the leading Solar Energy provider in Egypt and the Middle East since its inception. **OneraSystems** has also executed large number of projects to serve a wide array of industries with special emphasis on GSM remote sites where the national grid is either absent or interrupted.



**OneraSystems** has been quite successful in launching farfetched innovations in the off-grid system provision, either to the telecom sector, oil and gas, residential, or in healthcare. **OneraSystems** is the primary and business partner of world renowned suppliers that have been supporting **OneraSystems** with their projects. **OneraSystems** is proud to continue providing services to vital institutions locally and regionally.



### Wind Systems:

As a complementary measure with PV Solar Energy, **OneraSystems** was successful in introducing wind powered systems that aid in formulating hybrid systems to complement the night-time consumption of Solar Energy. We have been able to introduce Solar/Wind/hybrid systems in a number of GSM remote sites, in order to reach highly efficient and sustainable systems that run on seamless provisions of energy around the clock. **OneraSystems** is working closely with Wind turbine providers from all over the world to bring the most efficient and competent Hybrid solutions to its clients. **OneraSystems** is moving toward complementation of different renewable energy sources to supply top-end solutions to our clients.

### Batteries:

**OneraSystems** brings to the market a range of quality battery systems based on world-class brands such as C&D Technologies, USA and Hoppecke, Germany and many other world renowned suppliers. **OneraSystems** has been able to acquire a top position in supplying battery systems to a large number of clients in vital sectors where the storage of electrical energy at a high charge and discharge rate is of paramount importance for the sustainability of hybrid , plug-in hybrid whilst providing back-up for Solar(PV), Wind, Telecom, Utilities and many other stand by Applications. **OneraSystems** uses highly efficient battery systems comprising of Lead Acid, NiCad and Lithium according to each application requirements.



### Solar Controllers:

**OneraSystems** are essential components in solar systems to regulate battery charging by the solar array. **OneraSystems** is using Solar Controllers from OutBack, Phocos, MorningStar and many manufacturers. Their importance arises from the safety features they provide, preventing battery bank overcharging during peak solar illumination during daytime and preventing rapid battery bank discharging during night time. They also have their own voltage control function to regulate solar power provided to charge batteries. Sophisticated Solar Controllers are designed to produce constantly changing or pulsed voltage and amperage output to efficiently utilize every minute of solar energy collection.





## Inverters:



Inverters are crucial components in any power supply system based on AC current, since they convert electrical power from DC Voltage to AC Voltage. It is mainly used to convert battery voltage into conventional household AC voltage allowing the use of electronic devices where AC power is not available. This mentioned, MEET relies on top quality inverters for its projects that require AC voltage for operating household or industrial devices, allowing the use of electronic devices where AC power is not available. MEET works with world class suppliers such as SMA, Power One, OutBack and many other world renowned suppliers to bring about efficiency in virtually every project OneraSystems is involved in.

## Aircraft Warning Lights (Acwl)

To provide comprehensive solutions to clients, OneraSystems has collaborated with world class suppliers and manufacturers of obstruction and aircraft warning lights that are crucial components necessitated according to the civil aviation protocols set forth by the International Civil Aviation Organization (ICAO). To fulfill this measure, OneraSystems has thrived to provide top end products of Hughes & Philips in the USA. Its breakthrough in LED- based obstruction lighting technologies has resulted in the utilization of lighting fixtures that extend beacon lifespan up to times longer than incandescent bulbs with lower power consumption.



## Our People

## Technology Leaders

We are empowering today's Egypt through innovative energy solutions. With over 20 years of experience, and an excellent, well rounded team of technical experts, OneraSystems is unequalled.

We are setting the standard for a renewable and sustainable Egypt. Insight and ingenuity have propelled us to revolutionize new markets in the renewable energy industry in all areas of the Middle East.





## Our Achievements

### Air Defense and Border Patrols

The system we provided for the border patrols and air defense was an all-new idea for this highly vital function on Egypt's borders. The provision of sustainable power was essential to operate military equipment, telecom equipment, and secondary life necessities such as TV, refrigerators, etc., is of paramount importance to maintain the high functionality of military personnel in this area.

We came up with the idea of providing long-life photovoltaic systems to houses, camps and even provide the necessary uninterrupted energy to life sustaining equipment. This came as an alternative for the conventional sources that is particularly inefficient in these remote areas of special significance.

### Telecom Applications

As the GSM mobile operators have been striving to reach out for more and wide-ranging coverage, it has always been the question of power generation in remote sites, where grid is completely unavailable, or interrupted. It has been clearly understood that GSM mobile operators would not afford even a minimal interruption of any of their sites which would probably affect their (air time) market position and lead to losing clients, and hence forgoing important air time revenue due signal absence. Since the introduction of mobile phone service in Egypt in 1996, and the attempts of the first operator to extend coverage to virtually all inhabited areas in Egypt following a plan to acquire a strong market presence, it was compelled to power remote site with diesel generators.

Shortly after this solution was put in place, we started to study the feasibility of replacing diesel generators with photovoltaic systems, which initially seemed to be a logical replacement of the diesel generators. Our study focused mainly on the diesel operating cost vs. the low operating cost of photovoltaic systems. It has come clear as a result of this study, that photovoltaic systems are more efficient not only from an economic and financial perspective, but also from a convenience one. As the diesel generators needed close monitoring and continuous refuelling which has also burdened mobile operators with additional costs of reaching out to these remote sites, we approached the mobile operator with our feasibility study of replacing diesel generators with our photovoltaic systems, and presented the advantages of installing and running the system to power remote GSM sites. Since then, we have now more than 600 photovoltaic systems for Telecom Sites that have genuinely become an integral part of most remote GSM sites in Egypt and many countries in MENA region.



### South Sinai Protectorates



We were successful in diverting the attention of decision makers to the useful, efficient, and clean utilization of photovoltaic systems in remote sites. With the additional need to keep South Sinai Protectorate preserved against any type of pollution, it was not wise to power the houses of the Protectorate guards with air polluting emissions from using diesel generator, set aside the noise pollution and the hassle associated with operation. We have come up with a complete system for powering the houses of guards with photovoltaic system for the operation of crucial equipment such as wireless communication devices, and other surveillance and monitoring devices for security purposes, together with the ordinary lighting and life support gadgets. The system came as a comprehensive and constructive solution to this important function of the Protectorate and was highly applauded by the South Sinai Governorate that has paved the road for more solutions to more needs within this particular governorate.

The system also included our innovation of a small sea water desalination to provide potable water for the personnel as an alternative of the costly and inconvenience water transfer by means of tanks & trucks.

### Highway Ambulance

Ambulance on highways imperative to saving lives in the incidents of life-threatening injuries resulting from road accidents. As these sites run on either highly interrupted grid, or diesel generators, the failure of these conventional systems might result in direct calamity to human life. Thus, the idea of using photovoltaic systems to run highway ambulance sites from the crucial need to have around-the-clock sustainable power generation, that supports first-aid tools, operation lighting, refrigerators, HF/VHF equipment, small operating rooms, and charge necessary equipment within ambulance cars. The photovoltaic system was, not only essential for ambulance requirements, but it kept ambulance personnel ready and organised to move quickly and efficiently. We have also used photovoltaic systems with healthcare centres in the Western desert to provide medical services such as; first aid, and primary medical care to Western desert inhabitants.





## South Sinai Bedouin Settlements

The need for sustainable power generation in Sinai is an ongoing challenge facing the government of Egypt represented by the South Sinai Governorate. This arose from the government's plan to provide basic life requirements for Bedouins in Sinai Peninsula, that would urge them to settle down and utilize their manpower and resources in micro and small developmental projects, with an attempt to alleviate some of the burden on the balance of payments, contribute to GDP growth and create political stability in this important region. As we have become aware of this challenge together with the government's continuous endeavours to seek solutions to this problem, we presented a project to use photovoltaic systems to provide necessary power generation to 140 Bedouin homes in a virtually isolated region within the boundaries of the South Sinai Governorate. In this course, we have designed, documented and arranged all tasks of this project with the government and funding agencies.

Then we undertook the implementation this groundbreaking solution as a complete novelty in Egypt. Since then, the need for photovoltaic systems in providing sustainable energy to Bedouin and remote residential settlements has been growing. With our awareness of this fact, we are in a continuous research to develop better solutions to upcoming project of this sort.



## Highway Traffic Signs

With our successful innovation in the area of billboard advertising, the natural need arose approached the traffic department to provide similar solutions to high way traffic signs that are vital for high way night commuters and travellers. Accordingly, we studied the needs for this particular area, and redefined the necessities associated with the power requirements to light up traffic signs. This innovation was successful enough that we have been requested to provide more solution in various high ways, and have been consulted to come up with more ideas for better service on high ways.



## Solar Passive Cooling

We also used innovative complementary passive cooling shelters powered by solar energy, telecom equipment usually generate heat that require cooling. Using conventional cooling means such as air conditioners would burden the photovoltaic system and consequently increase its cost. We have used passive cooling shelters to control temperature without the use of electrical power, and hence economized the solar system.

## Hybrid PV Solar

We have also used hybrid systems with the photovoltaic systems such as wind and fuel cells to in other applications. It has come as a relief from having to rely on ineffective power supply with its direct and indirect costs and logistical hassle. Not only this, but we have set innovative schemes to deal with each site independently as a separate project. A complete assessment of the site has to be conducted in order to identify the current and future requirements of each site. Although this has been quite costly, we considered it an intangible investment early on that would reap its returns over the next years. To achieve this, we always strived to control the value chain at its entirety with an attempt to provide unconventional solutions to clients. This has compelled us to assess each component of the site, and to procure the best solution that would serve the sites, and also has transformed us into consultants for Telecom operators on the best and most efficient use of site components to adopt the use of photovoltaic.



## Solar Backup System (SolGuard™)

We have been the first, in Egypt, to install Solar Grid System for small and medium size units such as homes and Commercial Buildings, with our latest innovative solar solution for your home, SolGuard™. It opens new horizons for the use of Solar Energy in your home providing a unique turnkey system to meet all your energy needs. SolGuard™ eliminates the need for diesel power and is the right step that paves the way for a revolution in the world of Solar Energy applications. SolGuard™ is a model that provides a source of reserve electric power.



The system ensures that you can live in your home, without power outages in addition to saving electricity consumption from the public network and eliminate diesel generator noise & costs. The system works by generating electricity directly on the internal network of the house and takes advantage of the power stored on batteries to meet the needs of your home. SolGuard™ can be installed anywhere on or in the grounds of your house, it is a flexible system that is easy to erect and maintain.





OneraSystems always been successful in seeking new and innovative ideas for utilization of photovoltaic as an alternative energy source. While we have been fulfilling the needs of various applications with our innovative ideas, we have started a while ago an immense research and development efforts to develop projects which would re-direct the reliance towards photovoltaic energy. Unlike usual initiatives, our research and development is backed by strong and long experience in the field which has proven to be commercially and economically viable on the short, medium and long terms.



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