# NEWS AND INFORMATION WINTER 2010 ISSUE NO.9

# New Sollatek companies and agents

Sollatek would like to extend a warm welcome to new members of the Sollatek group.

**Sollatek India Ltd.** We're proud to announce the establishment of a new branch in India; this is a key geographic country for Sollatek's distribution in the South Asian region. Managed by Mr. Madhur Somani, the headquarters is in Mumbai and regional offices to follow in Delhi and Bangalore.



**USA.** we would also like to welcome ControlTec who is a new distributor specialising in the Original Equipment Manufacturing (OEM) industry. ControlTec Inc, based in Pennsylvania is highly experienced in supplying products to the refrigeration industry. Mr. Dwight Kelly is the president of ControlTec.



# Sollatek Iraq- One year on

Establishing a viable business in a turbulent environment has been a hurdle Sollatek Iraq had to overcome. With poor border and domestic quality control, the voltage protection market is flooded with cheap counterfeit goods. The initial entry to obtain a foothold in the electronics market has been slow, and it's not easy to convince the Iraqi consumers to look for quality and pay more money instead of buying fake and cheap products.



Gradually, sales are improving, now that Sollatek has established itself as a reliable high quality manufacturer. The Sollatek team have invested most of their efforts in visiting new shops on a daily basis to educate resellers and consumers of the quality alternative. They've also made their presence in numerous exhibitions and trade shows around the country, including Sulymaniyah and Basrah.

To contact Sollatek in Iraq, please send an email to sales@sollatek-iraq.com



Sollatek appliances in local hardware store, Baghdad

The ultimate air conditioner protection: the Voltshield A/C Guard See inside



# Sollatek is Tweeting



Why not be the first to follow us on Twitter. We have set up our new account and we hope to tweet on a regular basis with useful information. www.twitter.com/sollatek

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Equally suitable for the home..

# How to extend the life of your air conditioner

Major appliances are a big investment, and maintaining them properly can be a money saver. Air conditioners, whether central or window units, can be optimised and protected against power problems for efficient operation. This will extend the life of the unit and reduce power requirements. Voltshield A/C Guard is the voltage protection solution for air conditioners and split units.

The A/C is always at risk from unreliable voltage supply, which can cause irreparable damage to the compressor. Frequent stops and starts (associated with power-cut and low voltages) are also very serious and damaging. Now you can use the A/C Guard to provide full protection and safeguard your investment against power problems.

### Power problem protection

A/C Guard's Automatic Voltage Switcher functions protect against highvoltage, spikes, power-back surges and lightning strikes, and most importantly under-voltage. The intelligent time delay feature, safely switches off your air conditioner if the power fluctuates outside pre-set limits. The A/C Guard also monitors the voltage and reconnects the appliance automatically once the mains supply returns to normal.

### **Circuit breaker function**

An integral circuit breaker enhances the protection offered by the A/C Guard. If a short circuit occurs or a power-back surge follows a mains power cut, the circuit breaker detects the fault and the air conditioner is safely disconnected. To resume operation, simply switch the power on again manually.

### **Easy installation**

A/C Guard is easily installed by an electrician and suitable for use with all airconditioners, including split units, as well as industrial refrigeration equipment. Once it has been directly wired between the mains and your appliance, A/C Guard provides complete protection automatically. Choose between 16, 20 and 25Amp models to match the rating of your air-conditioner.

# 💎 Voltshield

The Sollatek **A/C**Guard

Protection for all air conditioning equipment in the home and the office



... or the office



#### **Key features**

- Automatically protects against damaging low voltage, brownouts, high (over) voltage, spikes & surges
- Intelligent time delay before power reconnection prevents frequent start stops and protects against power back surges
- Intelligent time delay
- Circuit breaker provides short-circuit and overload protection
- Single phase; choice of 3 models, 16A, 20A and 25A.
- · Easy installation; direct wiring
- Two year worldwide warranty



# Sollatek's solar street light LED bulkhead is ideal for demanding environments

The Solar Street Light's LED technology boasts rugged and intelligent design which sets a new standard for demanding lighting applications.



The Bulkhead's component LEDs offer a life expectancy of over 11 years' operation at 12 hours a day. This, together with the bulkhead's resistance to traffic vibration, and efficient use of solar energy create a street light ideal for remote and rugged environments with no mains power, or where maintenance visits are difficult and expensive.

The British designed and manufactured LED Bulkhead, has an exceptionally large output for its size, and provides a cool white light with similar efficiency levels as fluorescent lamps. Its instant starting is a significant advantage for security applications. As top of a range that starts from 20W and models up to 60W, the LED Bulkhead delivers electrical efficiency of 90% and an overall luminance efficacy of 85 lumens per watt. The LED array comprises 6 banks of 10 LEDs in a redundant arrangement, where each bank is driven by an independent high-efficiency high frequency PWM constant current driver.

The LED Bulkhead's tough aluminium enclosure is IP44 rated and the unit has short circuit, over current, spike, over and under voltage, over temperature and reverse polarity protection. Built-in intelligence also allows the lamp to dim in the event of LED overheating to avoid shutting down and losing all light coverage. Other intelligent functions include a programmable delay 'on' time, and programmable dimming in the event of reduced supply battery voltage.

For more information please contact sales.



# 500 LED street lights in Iraq

Sollatek is to supply 500 LED street lights in a new project for the Southern Oil Company in Iraq.

These are to be installed into the remote oil fields near the city of Basra in the southern part of the country – an area known for poor lighting and recurring security issues. The LEDs' 50,000 hour maintenance free lifespan is an essential advantage in this remote area, given the difficulty and cost of access for maintenance. The bulkheads each output 6000 lumens of bright white light, and feature an intelligent automated switching schedule operating from dusk to dawn.

In hot, sunny climates such as Iraq's, solar energy is a plentiful resource, and solar lighting is a natural solution. However, Sollatek is also using its solar technology expertise and experience to ensure the commercial and ecological success of installations into the UK and other regions with cooler climates. Success depends largely on optimizing the more limited sunlight hours and lower solar energy levels usual in such latitudes.





# Why solar power is replacing diesel generators in remote telecom installations

Mobile communication, especially in developing countries, has experienced tremendous growth in the last five years as it becomes the obvious choice of installation in remote sites and cities where infrastructures makes it more economically viable than landlines. Powering these sites is the main challenge. Solar power can provide a clean, reliable, always available, low maintenance alternative to diesel generators.

These difficulties arise because grid power in remote areas is unreliable or non-existent, so cell sites traditionally rely on continuously running diesel generators. Although viable, this solution has many disadvantages. Diesel fuel is expensive and becoming more so year by year. Tankers, equipment and staff to ensure regular, reliable deliveries across deserts and rough terrains, and during rainy seasons, are also costly. Then, ambient conditions affect the fuel and equipment as well as the transportation. The high incidence of dust particles demands frequent fuel filter replacement, typically twice as often as for clean fuel. The severe weather, higher temperatures and sandy or dusty conditions also mean higher maintenance costs, more frequent air filter changes, and lower generator reliability. When they are running, their noise, fumes and smell are unwelcome, and the fuel tank can attract theft or vandalism.

Solar power now provides a much better solution. A Photovoltaic (PV) generator produces electricity from the abundant power of the sun, which charges Tubular Gel batteries. At night, the batteries use this charge to power the load. They can also provide continuous power for up to seven days of cloudy or poor weather. With no mechanical moving parts, maintenance costs are nearly non-existent: an annual inspection visit usually suffices. Although initially at a higher cost than a diesel generator, a PV installation's savings on maintenance requirements make its total cost of ownership lower, while it delivers many years of uninterrupted, highly reliable power for its mobile phone service owners. Experience gained in North Africa and other locations shows that investment in a solar power system will pay off within about three



On going cost of diesel generator (based on \$2,500 Fuel and Maintinance per month) versus Solar generator. Within three years solar is generating surplus funds and of course reliability and network integrity is untouchable.

years. In the years after this, its continued supply of power without running costs is highly attractive, especially when compared with the support issues and heavy, ongoing and rising costs of operating and maintaining a diesel generator system.

With no noise, smell or pollution, PV systems are extremely environmentally friendly and 'green'. In fact, many communities actively welcome their presence, as they shelter villagers and their livestock from the sun. Another factor is increasing PV systems' popularity as well. Traditionally, Base Transceiver Station (BTS) systems and mobile phone sites have been large and power hungry, requiring a suitably large solar power generator. Such systems are maintained within brick built structures, which require air conditioning in hot climates. This can double the load on the solar power generator, therefore increasing its size and cost. However, later technology BTS systems can mitigate this as they consume far less power, run cooler and sometimes do not require air conditioning. Other mitigating approaches include high-efficiency DC air conditioning, and Passive Cooling Shelters (PCSs). These use a combination of good thermal insulation and a heat exchanger that recycles night-chilled water for cooling. PCSs, viable in regions with sufficient day to night temperature swing, are highly reliable and very 'green'.

With their attractive ROI and 'green' credentials, PV generators are the ideal answer to the developing world's telecommunications power demands.



BTS site using PV solar power instead of redundant diesel generator

## Sollatek Kenya – Mombasa International Show

Sollatek Kenya attended a five day exhibition organised by the Agricultural Society of Kenya (ASK) that reoccurs every year. Among the international exhibitors included those from China, Iran, United Arab Emirates (UAE), Egypt, Tanzania, Uganda, Rwanda and Burundi. Sollatek Kenya (SEKL) participated in this large exhibition which attracted 172 international and local exhibitors.

Show attendance was good and the Sollatek stand was particularly busy with visitors from up country showing a lot of interest in solar products. Every visitor was given a 30% discount voucher and many customers turned up to buy both solar and power control products. Every customer buying a product at the show was given free Sollatek gifts like T-shirts, caps, footballs, rulers and pencils.

The theme this year was "Driving Agri-business in attaining food sufficiency and vision 2030".

PS: Sollatek Kenya has a new showroom, be sure to pay them a visit.







### Why use a UPS?

It could happen to you at any time, and in the blink of an eye. All it takes is a small spike, surge, brownout, or any other fluctuation in the mains voltage, and your computer could be permanently damaged, your data destroyed, and your operating system files corrupted.

Faulty electrical power can seriously wear down your system over a period of time, without you knowing - until - eventually, it fails. The best way of avoiding such disaster is to install a UPS. A UPS (Uninterrupted Power Supply) is a backup power supply that includes a battery to maintain power in the event of a power outage.

The Voltsafe Ultima UPS range not only prevents your computer from sudden shutdown, but it also filters and regulates the utility power using the internal Automatic Voltage Regulator (AVR). In addition to computers, the Ultima can be used on most electronic equipment including TVs, Satellite receivers and even telecom units such as internet modem, VSAT and landline telephones.

The Ultima UPS uses the line-interactive technology, which is hailed to be the most efficient UPS. It is the most popular design used today for computer protection. When the input power fails, the transfer switch disconnects AC input and the battery/inverter provides output power. This gives a faster response to a power failure than an offline UPS.

### Ultima features

- · Microprocessor controlled line interactive UPS.
- Automatic Voltage Regulator (AVR).
- RS232 and USB communications port with software for controlling the PC for safe shutdown and UPS parameter reporting via user friendly interface.
- Unique system for charging battery even during a brown out.
- Short circuit and overload protection.
- Cold start feature for load shedding environments.
- Bad battery detection and advance replacement notification (3 months ahead).
- Free power monitoring and PC shutdown software included.
- Green power function for energy saving.
- Auto restart while AC recovery.
- · Compact size and light weight.
- Provides modem/phoneline surge protection.

#### Wide range of power variations

The Ultima 400VA to 800VA series is perfect for a wide range of SoHo (Small office, House office) computing applications. The Ultima 1kVA to 2kVA series is perfect for critical business and server applications.

### Startup from cold

Ultima's cold startup feature lets you power up your Ultima even in the midst of a power cut. It can be powered on and will remain on until the battery is depleted, enabling you to use your PC even if there is a power cut.





### The Sollatek Ultima UPS Range

Uninterruptible power - for constant productivity, designed for office and home environments





Source: SSE RWE, Greater Gabbard offshore turbines

# Sollatek helps control power from vast North Sea wind farm

Greater Gabbard is the world's largest offshore wind farm currently under construction. It involves the installation of 140 Siemens wind turbines each with a rated capacity of 3.6 MW. Located around two sand banks known as Inner Gabbard and The Galloper, it lies approximately 25 km off the Suffolk coast.

Each turbine is mounted on a steel monopile in water depths between 24 and 34 m. There are two offshore substation platforms, housing electrical switchgear and transformers to step up the voltages from 33kV to 132 kV. Three 132 kV XLPE subsea cables will bring the power ashore to a new onshore substation located near Leiston in Suffolk, where it will be connected to the national grid via existing 400 kV power lines. The Sizewell B nuclear power station is close by.

Greater Gabbard is currently being developed by Scottish and Southern Energy (SSE) in a joint venture with RWE npower renewables. Offshore construction work is continuing at the 500MW wind farm, which when fully commissioned is expected to provide enough carbon-neutral, renewable electricity for about 530,000 homes. The development is on course for final completion in 2012.

### **Regulated power output**

Sollatek was asked to supply and commission three of its Automatic Voltage Regulators (AVRs) to provide a reliable, regulated supply to power the onshore substation's control equipment and ancillary appliances. The new substation has three identical cabinets, each housing an auxiliary 13.9 kV-400 V step down transformer and a three-phase Sollatek AVR3x600 voltage regulator, rated at 600A per phase.

Only one of the cabinets will be in operation at any one time, with the remaining two acting as switchable primary and secondary back ups. The Sollatek AVRs regulate the 400 V three phase supply to the site's LVAC distribution board.

All Sollatek AVRs employ high performance solid state technology, making them



significantly less expensive than models using mechanical designs for regulating transformer output voltage. Their fully electronic, space-saving design also saves time and money as they are virtually maintenance free and offer a longer operational lifetime. A further advantage of the AVRs is their ultrafast voltage correction speed.

### Leading technology

With their microprocessor technology, Sollatek's AVRs will rapidly detect voltage variations and correct the output to ensure a steady supply. They have a very wide input range (-30% to +22%) and a voltage correction speed of 1250 V per second.

Wherever the electrical supply is erratic or unreliable, Sollatek, a world leader in the field of voltage regulation and protection, has the ideal solution for protecting industrial, commercial or domestic installations.

### Sollatek donations



Presentation of Glowstar to officials in Pakistani Embassy, in London 120 Glowstars donated to Pakistan flood relief

With the most devastating floods in the Country's history and with no sign as yet of them abating, Pakistan faces the unenviable task of trying to manage her 20 million displaced citizens.

Relief camps have become the only source of shelter and food for the refugees, and lighting is one of the necessities that the helpless and destitute need during this tragic time. Currently, camps rely on kerosene fuelled lanterns. The use of kerosene is well known for its fire hazard, but given the infrastructural damage, including power stations and the national grid, authorities have little option but to use them.

With the support of the Pakistani embassy officials in London, Sollatek is donating 120 solar powered lanterns to Pakistan to provide lighting in emergency relief camps in the worst affected areas.

The Glowstar<sup>™</sup> is a durable, waterproof and compact fluorescent light, powered by a high quality battery from a small photovoltaic solar module. With up to 5.5 hours of lighting, it is the ideal choice for disaster relief organisations and charities.



**Donation to Red Cross Haiti appeal** 

The 2010 Haiti earthquake was a catastrophic magnitude 7.0 Mw earthquake. An estimated three million people were affected by the quake; the Haitian Government reports that between 217,000 and 230,000 people had been identified as dead,

an estimated 300,000 injured, and an estimated 1.000.000 homeless.

Sollatek staff generously contributed towards this appeal with an overall sum of £1713.50 that was donated to the British Red Cross. The money raised went towards providing meals for over 400 families and temporary shelters for over 30 families.

### Shoe box appeal

Sollatek employees have risen to the challenge yet again by offering their help to the Shoe Box Appeal, which is organised by the registered charity Smile International. The charity distributes humanitarian

aid in the form of 'filled' shoeboxes that are then sent to a needy child in Africa, Asia or Europe. Staff at Sollatek generously filled shoe boxes with items



that less needy children take for granted and these, along with cash for freight charges, were given to Smile International for their onward journey to their chosen destination.

For more information go to: www.smileinternational.org

### **Monthly Glowstar donation**

Sollatek is pleased to announce that we will be donating up to 10 Glowstars every month to a different charity organisation. If you know a worthy cause that meets the following criteria, please contact Sollatek:

- The organisation should be a recognised charity and we will require a registered charity number.
- A description of the application of how our Glowstars will be used.
- Information on which country/countries where the Glowstar will be used.

Terms and conditions apply; for more information please visit <u>www.glowstar.net/donate.htm</u>



Narok safehouse for women in Kenya



Evening adult literacy classes Etate Petrol Post, in Congo

# New promotional items

Featuring a selection of latest items from our extensive range.

For a complete list of promotional items visit: www.sollatek.com/promo





2D Coaster MOQ: 50

08310604 <u>£00.45</u>

Wall Clock MOQ: 10

ock 08610712 0 <u>£10.00</u>



Travel Bag MOQ: 30 08511001





 Mug
 08300604

 MOQ: 25
 £02.75

LED Torch MOQ: 25

08610716 <u>£05.50</u>

### SOLLATEK PROMOTIONAL LITERATURE



All of these catalogues / brochures are available as downloadable PDFs. Go to www.sollatek.com for more information.

Thanet AVR windfarm

Greater Gabbard windfarm

# Test your knowledge and win these prizes!

Answer as many questions correctly as you can. There are prizes to be had for the first 20 entrants with correct answers. Please indicate your choice of prize. Tick one box only  $\checkmark$ 







Q1. Which of these products protects your computer against RFI noise, spikes, surges and lightning?

- A. PureAC
- B. LightningGuard
- C. SpikeGuard
- D. CommsGuard

### Q2. What is the Voltshield range?

- A. Range of power suppressors
- **B.** Range of Power regulators
- C. Range of power optimisers
- D. Range of power switchers

### Q3. What type of technology does the Sollatek AVR have?

- A. Solid state no moving parts
- B. Servo with moving parts
- C. Relay based
- D. None of the above

### Q4. The ideal protection for a personal computer is?

- A. SVS
- B. UPS
- C. AVS
- D. AVR

### Q5. What does SLK4 stand for?

- A. Switcher Link Kit 4
- B. Sollatek Lighting Kit 4
- C. Sollatek LED Kit 4
- D. Solar Lighting Kit 4

### Q6. What is the FreoRange?

- A. Range of Temp. control/ monitors and energy savers
- B. Range of freezers, coolers, fridges and dispensers
- **C.** Range of solar power products for refrigeration
- **D.** Range of telecommunication products

### Q7. The Voltshield A/C Guard protects against:

- A. Low voltage
- B. Over voltage
- C. Power back surge
- D. All of the above

### Q8. What is the maximum Amp rate of the Voltshield A/C Guard?

- **A.** 6A
- **B.** 20A
- **C.** 25A
- **D.** 30A

# Q9. How many years can the Sollatek LED solar streetlight operate without maintenance?

- A. 11 years
- B. 19 years
- C. 5 years
- D. 32 years

### Q10. The AVR input range is:

- **A.** +30 to +22%
- **B.** -25% to +15%
- **C.** +/-30%
- **D.** +/-10%

Tal

Your name \_\_\_\_\_\_

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Email: \_\_\_\_\_

**Post to:** Marketing dept. Sollatek (UK) Ltd, Unit 10 Poyle 14, Newlands drive, Poyle, Slough SL3 0DX, UK.

Email your answers to: marketing@sollatek.com

Complete by circling your chosen answer, cut out and post this page to Sollatek UK. You can also enter by emailing the answers to marketing@ sollatek.com, remembering to complete your name, postal address and email address. First 20 entrants drawn at random, who correctly answer all 10 questions, will receive either a Sollatek Wall clock, a Sollatek Football or a Sollatek Travel bag. Please indicate your choice of prize by ticking the small box below the prize. Closing date for entries is April 25th 2011. Entries will be drawn on May 5th 2011. Winners will be notified by email. Good luck!

The prizes have no warranty. Sollatek Ltd., its companies and resellers are not liable for any damage to the prizes. Sollatek employees (or members of the families or households of employees) or any company selling Sollatek products are not eligible to enter the Competition. Sollatek reserves the right not to award a prize (and to select an alterative winner) if Sollatek is aware or has reasonable grounds to believe that a winner is not eligible. post this page to Sollatek (address as below).

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