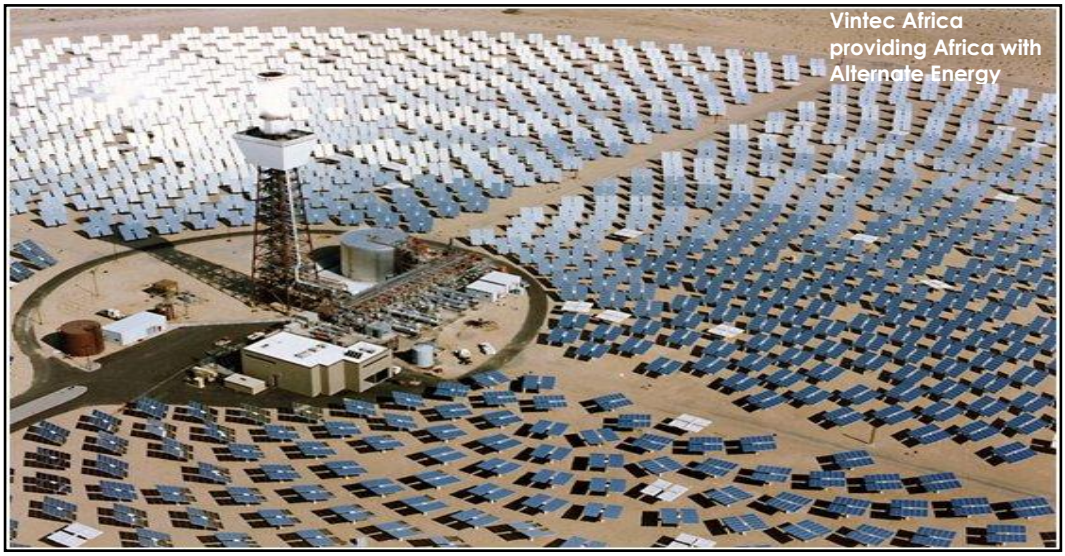
Vintec Knowledge Newsletter



Vintec Africa Offer Both Energy & Water Solution

Alternate Energy Solutions –
Green Energy & Medical grade Water Generation

Mr. Pierre Tarin (CEO) released a statement indicating that Vintec Africa would soon make available a cutting edge solution enabling both the production of High quality (medical grade) water and electricity. The "System" provides cost effective, green, sustainable, renewable energy and clean potable water supply.

Designed and developed to meet the world's power & water needs it had to be a self-sustained, self-powered unit that is remotely operated, controlled and monitored with the need for little to no annual maintenance.

The primary function and design of the system is to –

- Provide clean and /or convert contaminated water into potable water at a rapid pace
- Provide continuous, clean green energy
- Allow the system to function remotely

The solution can be purchased outright or a long term agreement to purchase the energy / water or both can be entered into. Most water sources can be used – waste, sewage, contaminated, river and sea water. Interested parties can contact Mr. Tarin.

Pierre Tarin – Cellular: 072-298-3840
Email: pierre@netfusion.co.za

Motor Controllers

Vintec is now offering "Energy Saving" solutions for motor driven applications, these controllers are "intelligent" and therefore simple to install and set up (see page 4).

New-Age Solar Panels

The new range of solar panel make use of an embedded Solar Edge power box in our solar PV panels and provides for double the Total Power Generation.

Portable Solar Power

A portable (DIY) Solar power kit is available and range from energy for 1 light to power for a large house.

News

- *Alternate Energy Solutions*
- *Eskom – steps to negate "Load Shedding"*
- *Advanced Solar Panel*
- *Heat Pumps.*
- *Motor Controller*
- *Lead Crystal Batteries*

Heat Pumps

"Save up to 50% by replacing your T12/T8 Fluorescent Lighting with the New T5."

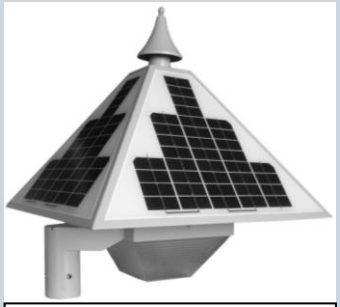
"Huge Profit to be made from Vintec Solar Geysers"

Eskom taking steps to negate "Load Shedding"

Solar Powered Street Lights – CFL / LED & SON-T

IR People Sensor

South African Contingent Inspect "Street Light Solutions" working in Israel



Community Light – Self contained Solar powered LED Light (It's all built into the roof of the Lamp).

Ekom "Buy back Power"

State-owned power utility Eskom is casting a wide power buy-back net as part of efforts to close a possible supply/demand shortfall of 6 TWh this year and 9 TWh in 2012/13, without having to resort to rotational load shedding– 9 TWh is equivalent to the electricity consumed by a large city such as Cape Town in a year.

CEO **Brian Dames** indicated on Thursday that the utility was even going so far as to approach large shopping malls and hospitals with generation capacity to offer them short-term incentives to use their capacity should the system become overextended during the next two years.
concluded with mega malls in Gauteng, KwaZulu-Natal and the Western Cape in the not too distant future and that the incentive would probably be higher than the R2 800/MWh it costs Eskom to run its open-cycle gas turbines, in the Western Cape. However, these contracts would only be triggered in instances of dire system stress.

Eskom is also in talks with the Johannesburg and Tshwane municipalities in a bid to secure an additional 200 MW of coal-fired capacity in the near term, as well as with those municipalities that have installed gas turbines, which could add 100 MW of peaking capacity.

These contracts would be additional to the 287-MW of cogeneration and own-generation capacity that it had already secured from Sasol, Ipsa and Sappi, as well as the additional 88 MW that will be contracted with two other generators in the coming weeks. These contracts were concluded under the medium-term power purchase programme, which was now closed.

Senior GM for integrated demand management **Andrew Etzinger** added that the utility was also close to finalising commercial negotiations with an international 'demand response aggregator', which could facilitate the purchase of as much as 500 MW from small industrial and commercial entities during the 2011 winter peak and beyond.

Eskom is hoping to lock in buy-backs worth 2 000 MW for the coming two years as part of a larger 'virtual power station' concept unfolding at the power-stressed utility. Further components involve residential demand-management solutions, energy efficiency programmes, demand-side management programmes, as well as a mandatory energy conservation scheme (ECS).

The ECS, which when first mooted caused widespread alarm among domestic businesses, would target South Africa's 500 largest electricity users and would act, Eskom says, as a further "safety net".

The objective was to achieve a 10% reduction against agreed 2007 baselines from industrial customers consuming more than 25 GWh a year. Currently, the scheme is voluntary and about 5% worth of savings had been recorded against the baselines. But Eskom and the Department of Energy would seek to make it mandatory in the coming months.

OptiLux Controller Save min of 20% on HID & Fluorescent

Electronic Ballast Save min of 20%, built in diagnostic & remote control

LED Street Lights

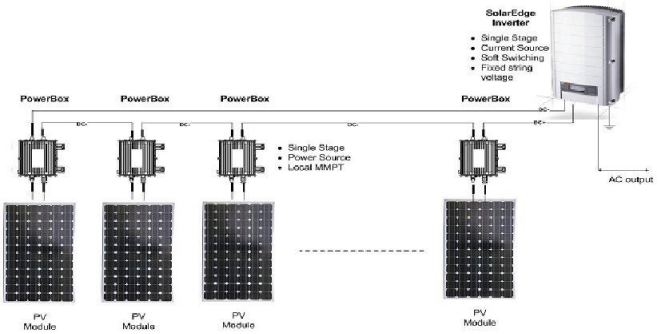
LED Tunnel Lights

Advanced Solar Panel

The embedded Solar Edge power box in our solar PV panels double the Total Power Generation.

The Embedded Up to 25% increase in Power instead of 11%- 12% you usually got.

1. The Power Box maximizes energy output from every module through constant tracking of MaximumPower Point individually per module.
2. Power Boxes automatically maintain a fixed string voltage, allowing optimal efficiency of the inverter
3. 25,000 boxes giving us greater flexibility to design optimal PV systems.
4. The PowerBox also communicates module performance to enable module-level monitoring.
5. 25 year reliability & warranty
6. Advanced theft prevention
7. Mono & Multi crystalline panels
8. Next generation maintenance with module level monitoring



Heat Pumps

Industrial Use " Eco Cute " Hot Water Boiler

Highly efficient CO2 heat pump water boiler .

Industrial use Eco-cute introduces CO2 Heat pump system which utilizes heat from the air and produces heat energy to make hot water. Electrical energy can produce 3.8 heating energy.(*COP= 4) Its high efficiency leads to lower running cost and being eco-friendly. *COP (Coefficient of Performance) is the ratio of heat delivered by the heat pump and the electricity supplied to the compressor. The bigger the figure, the better the efficiency.

Eco-friendly and the best and quickest way to reduce CO2 emissions.

Ozone Depleting coefficient is 0. Global Warming Potential is 1/1700 of Freon refrigerant. Stopping the Global Warming is one of our top priorities. Eco-cute uses naturally abundant CO2(R744) as refrigerant, so "Ozone Depleting Coefficient is 0, Global Warming Potential is 0" is realized. CO2 refrigerant is not combustible nor toxic, which makes our Eco-cute next generation type water heater.

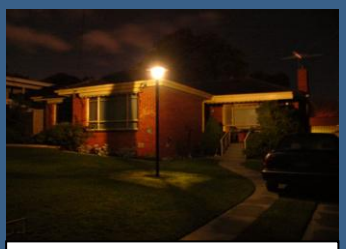
	ODP	GWP	Necessity of collection
Refrigerant			
CFC Refrigerant R12	1	8,500	Yes
HCF Refrigerant R22	0.055	1,700	
HCF Refrigerant R22	0	1,700	
HFC Refrigerant R134A	0	1,300	
Natural Refrigerant R744（CO2）	0	1	No

These values are based on our estimation.
ODP=Ozone Depletion Potential,
GWP=Global Warming Potential.

Suitable usage condition

Industrial use Eco-cute hot water boiler is ideal for facilities where heavy volume of hot water is used on a constant base. Facilities such as...

- Hotels
- Restaurants
- Sports facilities
- Shower rooms
- Nursery homes
- Hospitals
- Schools / Dormitory
- Retail shops



Solar LED Lighting

Multi Solar Systems

Solar Power Station

Solar Power Station (CSS)

LED Special Lighting

Motor Controller

A new type of control unit which is currently introduced to the market picks up where classical softstarters stop. The so called **MotorCon** has been developed to save 20% of the motor consumption.

The **MotorCon** incorporates full soft starter functionality. But unlike classical softstarters, it does not switch into bypass once the motor reaches its rated speed. Instead the control unit switches mode and optimises the energy efficiency of the motor during continuous motor operation.

Like classical softstarters its mode of operation is based on the phase angle control approach to control the voltage by means of thyristor switches. Classical softstarters use this approach to gradually increase the voltage during the start-up phase. The innovation of the **MotorCon** lies in its automatic load recognition and adaptive software control. They enable it to use the phase angle control approach to adaptively control the voltage being fed to the motor during continuous motor operation.

The automatic load recognition detects various motor-parameters at a high sample rate. Based on these motor-parameters the adaptive software control calculates the current load of the motor and the optimum voltage for that load. The control unit then feeds the motor only this optimum voltage using the phase angle control approach.

Vintec Africa now carry a full Range of "Lead Crystal Batteries"

- A Greener Longer Lasting, Sustainable Battery.
- The lead-crystal battery technology has exclusive patents. The Lead Crystal Battery is manufactured in accordance with environmental protection standards.
- The Lead Crystal Battery is ideally suited for numerous global industries such as Telecommunications, automotive, electricity (solar & wind), health, transportation, computer and other industries

DESIGN CHARACTERISTICS

The architecture of Lead Crystal batteries consist of lead plates and an acidic solution of SiO2 as electrolyte. The first few charge/discharge cycles causes the electrolyte to solidify and form a non toxic crystalline substance. This results in a safe, fluid-less, high performance and environmentally friendly battery.

1. Flame retardant (UL 94 VO) PC-ABS smoulder free plastic case and cover.
2. Compliant with 48cm (19") & 58cm (23") and ETSI racking dimensions, can also be mounted on side with no effect to life or risk of spillage due to fluid less design.
3. Extreme temperature range -40ºC to +65ºC. (-50ºC can be obtained by applying readily available insulation materials around the battery). Out perform any other battery at extreme temperatures due to no fluid that can freeze and expand causing bending of plates.
4. Very low internal temperature generated during Charge and Discharge cycles.
5. 3 step terminal seal design, No liquid inside so no risk of leakage.
6. Emits almost no vapour compared to other conventional battery types making ventilation of battery chamber easier and less costly.
7. Battery designed to work with a 5% Ripple current, Ripple current at 5% will affect the cycle life by 1% under normal conditions.
8. Approved as non-hazardous cargo for ground, sea and air transportation can also be transported with general goods in the same containers with no risk of contamination.
9. Lead Crystal Batteries contain no harmful chemicals or acids making them environmentally friendly.
10. 3 year factory guarantee (T&C apply). 5 year guarantee period is also available.

LED Fluorescent Tube 70% energy savings

LED Strip Lighting

LED Grow Light

LED Candle Lights

LED Ceiling Light