THE “ENERGY SAVING SOLUTION”

VIDA Technologies

Product Offering

Office Details:

VIDA Technologies

Office 518, 5th Floor,
Tyger Lake Building,
Tyger Falls,
Carl Cronje Drive,
Tyger Valley
Cape Town,
South Africa

Contact Details:

If you would like to know more about our product range and how we can save you energy and money, please feel free to contact:

Jean-Claude Allegrucci
Chief Executive Officer

Tel: +27 21 975 6661
Mobile: +27 82 292 6819
Fax: +27 21 914 1350
E-mail: jeanclaude@sponges.co.za

Allistaire October
Chief Operating Officer

Tel: +27 21 975 6661
Mobile: +27 83 636 0585
Fax: +27 21 914 1350
E-mail: allistaire@sponges.co.za

1. ABOUT US

VIDA Technologies is a dynamic Energy and Water Consulting Company. VIDA Technologies' Demand-Side management technology offering is state-of-the-art, market leading energy efficiency technology. With offices in Namibia, South Africa, and Switzerland we aim to distribute the best technologies to markets toward realizing empowerment of Strategic Energy Planning.

Our company has identified an opportunity to supply patented energy efficient products and technologies, bundled as the *Energy Saver Solution*, into African energy markets, offering unparalleled energy optimization, savings and customer services.

2. INTRODUCTION

In the latter months of 2007 South Africa started experiencing wide spread rolling blackouts as supply fell behind demand, threatening to destabilize the national grid. The effect of the shortfall has spread to those SADC countries to which the utility supplied electricity to. The inability to implement a short-term solution to curb this national energy crisis has driven electricity costs to a + 60% increase within the last 18 months. A 10% consumption reduction has been set by Eskom to alleviate this demand-supply imbalance. However, there are currently no viable and effective solutions for Businesses to achieve the set reduction target of 10% without compromising optimal operation levels. It is therefore becoming increasingly relevant for Businesses based in South African and other African to ask:

How can I reduce my electricity consumption?

How can I save escalating electricity cost?

VIDA Tech has the answer - We supply a state-of-the-art, practical and affordable energy saving options, compromising of multiple key technologies, which reduces **real** electricity consumption and associated costs by up to 30%.

3. ENERGY OPTIMIZATION STRATEGY TECHNOLOGY

I. Voltage and Current Optimization
II. Lighting Optimization
III. Peak-Demand Management System
IV. Water Heating – Energy Efficient Geysers
V. Advanced Electricity Digital Metering

4. FEATURES & SAVINGS

I. Reduces your monthly electricity bill up to 30% (up to 50% in residential households and small SME's).
II. Reduces Active Power (kW/h), Peak-Demand Consumption and associated penalties.
III. Ensures more efficient supply of electricity.
IV. Stabilizes and optimizes the incoming electricity.
V. Peak-demand management.
VI. Advanced Digital Electricity Metering utilizing database infrastructure.
VII. Environmentally friendly.
VIII. Fully compliant with safety standards.
IX. Rapid Return on Investment.
X. Reduces your CO_2 footprint.

5. PRODUCT OVERVIEW

5.1) Voltage Optimization

"Physics show that high voltage is a hidden and adjustable cost"

Voltage Optimization regulates the voltage level at the incoming main supply. Within the UK, Europe, as well as South Africa, electrical infrastructures will be supplied with 230 – 240 Volts. However, due to poor electrical grids over supplying voltage (240 - 255 + Volts), as well as all electrical appliances and components within premises not requiring the full 230 Volts, great electricity savings can be obtained. Combining this with optional power factor corrective capacitors, both technologies will concurrently decrease physical electricity consumption as well as peak demand – an unbeatable combination!

5.1.1) Main-Supply Optimization:

Main-supply voltage optimization is scalable for any consumption user, from residential households to large industrial users. As such, our product range for this category will be available in standardized kVA sizes, in single or 3-phase, from 5 kVA to 2000 kVA. Active Power (kW/h) electricity savings of 7 - 20% are attainable, with even greater savings possible where demand-

tariffs are applicable, while supplying a constant and stable electricity supply to the premises, protecting and prolonging the life-span of all appliances and equipment.

In addition, certain customized options are available for the client, which includes spark-arrestors, power-factor correction and outdoor housings. The projected customer's ROI period will lie in between 18 – 36 months, with a 10-year guarantee and life expectancy of 40-50 years.

5.1.2) Retro-Fitted Optimization:

Our Power Saver is a small power extension cord type-product, which allows consumers to plug-in a single appliance at a time, thereby improving the energy efficiency of that appliance through small-scale voltage optimization.

As such, savings of up to 20% are possible for the appliance in use.

5.2) Lighting Optimization

For the application at municipal and infrastructural public lighting, VIDA Technologies has secured LED (Light Emitting Diode) technology.

The benefits of LED lighting is that can use up to 85% less energy of conventional lighting, in addition to being significantly brighter, using less power. LED's also last significantly longer, as opposed to conventional. Comparing LED lights to CFL lighting, LED's do not have any poisonous Mercury in its manufacture, a risk that will be revealed if proper collection practices are not in place. Conventional waste removal systems will see CFL's disposed of at landfills with the very real risk of the mercury over time contaminating ground water sources.

VIDA Technology is driving three key LED Technologies for replacement of conventional public lighting:

I. Streetlight Replacement LED Lighting
II. Fluorescent Replacement LED Lighting
III. Down-lights Replacement LED Lighting

The application of these technology replacements will cover a wide range of public lighting in office buildings, streets, etc. The impact of wide application in addition to the other technologies that form VIDA Technologies Energy Optimization suite will have a significant impact on national energy demand, and environmental impact.

5.3) Peak-Demand Management

Peak-demand management systems do not actively employ technology that reduce electricity consumption, but rather utilize intelligent technology, which prioritizes electricity loads according to a rank system, drastically reducing peak-demand and hence reducing electricity consumption by 10-15%. A practical example of this would be to prioritize a households various loads where the pool-pump is ranked lower than the geyser, and the geyser in turn lower than the lighting elements. Once the prioritized rank is complete, a maximum current (amperage level) is set, which the peak-demand management systems will not allow to be exceeded. Once the current (amperage) demand gets close the maximum limit, the peak-demand management systems will switch off appliance in accordance to the rank (e.g. stand-by appliances such as TV's, geysers etc), hence reduces electricity consumption of appliances not required.

In 2010, South Africa will experience a new shift in electricity tariff structures, where every consumer who uses in access of 500 kWh per month will be billed on a peak-demand tariff. As such, without efficient peak-demand management, consumers could anticipate a further increase of 15 – 30% in their electricity costs.

5.3.1) Features

I. Completely automated and efficient system, requiring no human intervention.
II. Increases your home or business' electricity capacity, allowing to support more appliances from the same main supply.
III. Increases a property's electricity supply by 40 – 160 Amps per phase, through efficient management alone.
IV. Eliminates annoying overload power trips.
V. Allows smaller standby generators to interface with existing household wiring while conforming to relevant by-laws.
VI. Using motion-sensor technology (optional), automatically and efficiently switches off electrical devices in unoccupied areas, with power returned immediately when motion is detected again.

5.3.2) Application

Our peak-demand management system is available in 3 different models (single and 3-phase compatible), ranging from 2, 4 and 8 input channels, serving 2, 4 and 8 power switches respectively. The maximum capacity site this range could serve is 100 Amps, equating to 23 kVA, with increased capacity management possible depending on the number of required input channels. As such, our peak-demand management system is ideally suited for residential

households, SME's and some retailers, where the maximum capacity and peak-demand management requirements are not exceeded.

5.4) Energy Efficient Geysers

Given that for households' water heating can account for up to 50% of electricity cost VIDA Technologies determined to source technology that would fill the requirements of effective / efficient heating with very low energy consumption.

Models range from between 75litre – 400litre models, to fit a wide range of applications. In addition to the different models, as well as the low energy requirements of the technology, VIDA Technologies have sourced Solar Voltaic Panels with backup storage power toward removing water heating from the national grid. Considering the high Solar Radiation in Southern Africa, and the high number of sunny days, off-the-grid-heating becomes a reality.

Product Specifications

I. Certified and compliant to the American UL standard. The Marathon water heater has been widely used in the USA for more than 20 years
II. The 75l and 110l have been submitted to SABS for testing and compliance to the SABS 151 standard and is pending approval
III. Low electricity consumption - Testing shows that the Marathon water heater uses less power than a solar assisted water heater largely due to its excellent thermodynamic characteristics
IV. Superior standing heat loss features. The reduction in heat loss as compared to normal household geysers means that electricity is saved to reheat water
V. The Marathon geyser/water heater is the greenest geyser available in the market.
VI. High pressure geyser – tested to 600kPa
VII. It is lightweight and portable enough to be distributed and installed with ease
VIII. It is durable and corrosive free
IX. Units carry a life time manufacturer guarantee, converting to a 15 year warrantee from point of installation should the property change ownership
X. Element and thermostat comes with a 1 year guarantee
XI. Ongoing maintenance limited to the element and thermostat replacement costs

Efficient Geyser Standing Heat Loss Results:

Unit Capacity	Standby Loss Test Duration	Thermostat Setting	Heat Loss Per 24 Hours
75 Litre	72 Hrs	55°C	0.88 kWh
	48 Hrs	65°C	1.51 kWh
110 Litre	72 Hrs	55°C	0.95 kWh
	48 Hrs	60°C	1.46 kWh

5.5) Advanced Digital Metering

Advanced digital electricity metering is a tremendously strong emerging demand from corporate businesses, property developers and groups, retail franchises, as well as some SME's. Where as all our other product offerings focus on reducing actual electricity consumption, advanced metering allows businesses, especially larger groups, to be well educated about their actual electricity usage and consumption patterns. It has been proven that actively monitoring electricity consumption indirectly allows users to reduce their electricity usage, and has become an international norm for companies to improve transparency with regards to their active electricity usage. Offering such technology as an option to our clients can only add value to them should they have such a demand, while further increase sales.

Utilizing such advanced metering technology navigated over an internet driven GUI, allowing for a centralized electricity database, creating value through transparency and control to franchises, property developers, corporate groups as well as municipalities.

6. Technology Application Groups

In order to make the sale and concept easier to grasp, we have listed the areas of application for the technology suite. VIDA Technology have bundled toward improving the effect of a Energy Optimization Technology Program the above mentioned product range into numerous bundles, suited for different applications.

6.1) Residential Households

6.2) Small-to-Medium Businesses (SME's)

6.3) Property Developers (Offices, Complexes, Residential Estates) - Shopping Centers / Large Office Complexes

6.4) Industrial

6.5) Corporate Groups