



# POWEROPTIMAL

THE FUTURE OF ENERGY

Putting the power back in your hands

Reduce your electricity costs  
by 15 to 25%, forever



## The Problem

Electricity costs too high? Power trips interrupting your business or home?

### HIGH ELECTRICITY COSTS

- Faulty meters, incorrect estimates, billing mistakes, incorrect tariff choices and poor energy efficiency all drive up your electricity bill
- Poor management of power load leads to inflated peak demand charges – for commercial customers, this can amount to as much as 50% of the electricity bill!

### ELECTRICITY SUPPLY CONSTRAINTS

- Increasingly stretched municipal infrastructure and strained backup power systems - aggravated by load shedding - mean more frequent power trips and supply complications

// *With above-inflation electricity price hikes here to stay, energy management is increasingly crucial to ensure a sustainable and profitable business."*

## The Solution

**POWEROPTIMAL OFFERS A RANGE OF POWER DEMAND MANAGEMENT SOLUTIONS FOR BOTH COMMERCIAL AND DOMESTIC CUSTOMERS.**

As your total power load approaches a preset peak, PowerGuard® - an established and proven peak power demand management system - intelligently shifts your non-essential power loads (like electric geysers, boilers, air conditioners, swimming pool pumps, etc.) to times of lower demand, according to your priority of devices. This reduces your peak power demand without any inconvenience to you or your business.

## WHAT IS PEAK POWER DEMAND AND HOW DOES IT AFFECT MY ELECTRICITY BILL?

THE BULK OF YOUR BUSINESS ELECTRICITY BILL CONSISTS OF:

- Your total electricity consumption/usage - measured in kilowatt hours (kWh) and
- Your peak power demand – measured in kVA

*Our irregular use of electricity is inefficient – typically very little at night (valleys), and much more during certain times of the day (peaks), causing power supply constraints.*

Think of it as a highway – at peak times, the traffic bottlenecks, leading to huge traffic jams. Yet at other times, the road is completely empty. Wouldn't it be great if we could spread out highway-use so that traffic is always flowing but never congested, day and night?

Unfortunately, the only way to make this happen, apart from re-building the highway, is if enough people decide to go work at midnight and at the early hours of the morning. Any volunteers?

But, here's the good news. With electricity, smoothing out this peak-time "traffic problem" is actually possible. This is called "Demand Management".

### PEAK ENERGY CONSUMPTION



### OFF PEAK ENERGY CONSUMPTION

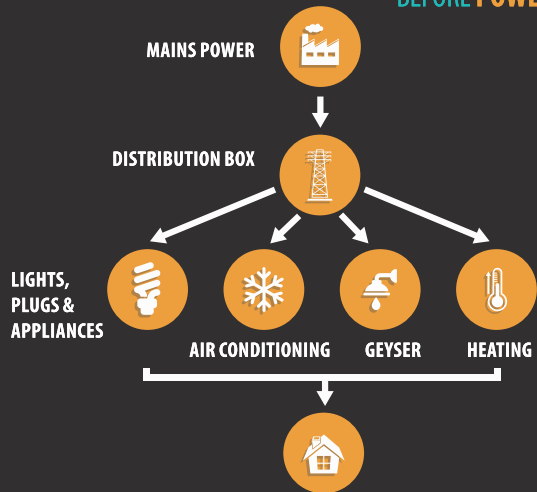


### OPTIMAL ENERGY CONSUMPTION

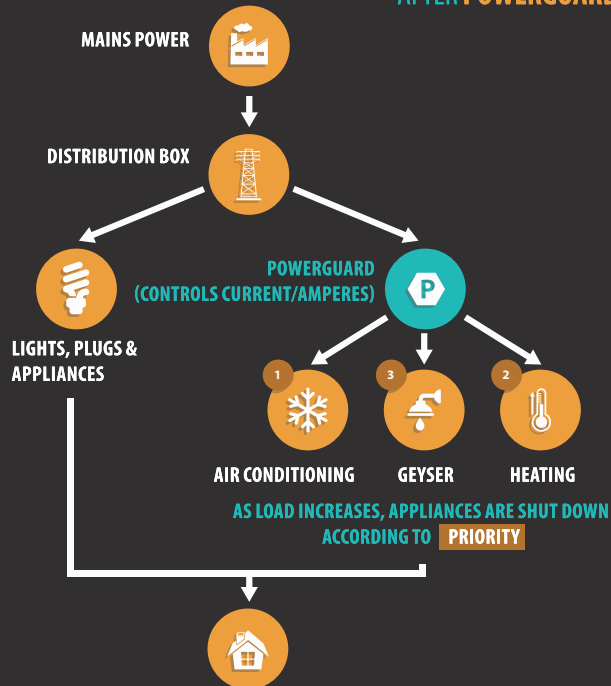


## Our Technology

### BEFORE POWERGUARD



### AFTER POWERGUARD



## Why PowerOptimal?

Our experienced team, proven technology and track record of successful installations will help you save money and proactively manage your electricity costs. For companies, this helps you to build a sustainable and profitable business.

### BENEFITS OF POWERGUARD®

- Peak power demand reduction of up to 50%
- Proven cost savings of up to 20%
- Commercially and functionally proven with an installed base of over 1100 channels managed over the past 6 years
- Can manage both grid and back-up power supply automatically
- No customer inconvenience – system operates undetectably
- Simple installation by any qualified electrician
- Various models according to size and complexity of your needs
- Online monitoring for accessible real-time data
- Protects against over/under voltage
- Hire purchase option for commercial customers – after a cost benefit analysis we provide a savings estimate and agree on a fixed monthly payment that's guaranteed to be lower than your savings
- IEC certified

## Awards

Winner of the Small and Medium Energy Company of the Year in the 9th Africa Energy Awards 2016



2nd prize winner in the Green City Start-up Competition 2015



Want to know more?

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