



# POWEROPTIMAL

THE FUTURE OF ENERGY

Putting the power back in your hands

Experts in smart power demand and billing management solutions



## 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 and billing management solutions for both commercial and domestic customers.

### SOLUTION A / POWER DEMAND MANAGEMENT SOLUTIONS

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?

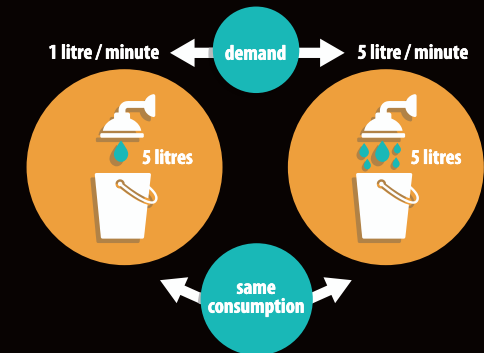
#### THE BULK OF YOUR BUSINESS ELECTRICITY BILL CONSISTS OF:

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

There is only so much you can do to reduce your commercial electricity usage, but effectively managing your peak power demand can realise substantial further savings.

#### HOW DOES POWER DEMAND DIFFER FROM USAGE?

To fill a 5 litre bucket with water you can use a cheap hose connection to your sink that fills it at 1 litre each minute, and it will take 5 minutes. A larger, more expensive tap provides 5 litres per minute - filling the bucket in one minute. The rate of water flow is equivalent to demand, and the 5 litres of water are equivalent to consumption. Filling both buckets has the same "consumption" but very different "demands." Demand is the rate at which you consume electricity – or the amount needed to power your business at any given point in time. Your demand charges are based on the maximum power drawn at any one 30 minute interval during a month of billing.



### SOLUTION B / ELECTRICITY BILLING MANAGEMENT SERVICES

#### ELECTRICITY BILLING MANAGEMENT SERVICE

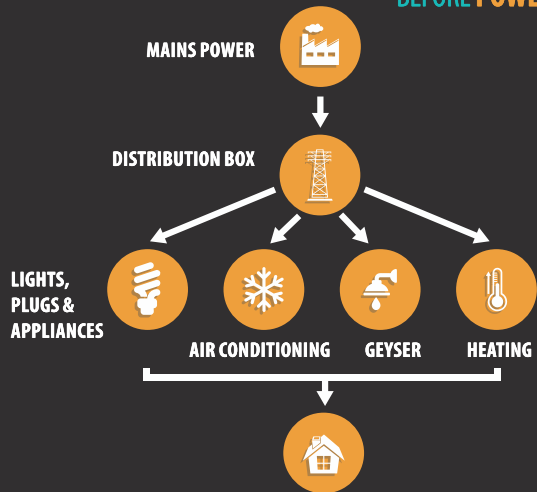
Our experienced team proactively manages your electricity bill so that you can get on with the business of doing business. Data from a smart meter allows us to monitor consumption trends, provide appropriate recommendations to reduce usage and engage with municipalities on any variances to ensure accurate billing. We also advise on the best tariff option to minimise your electricity costs.

#### ELECTRICITY BILLING RECOVERY SERVICE

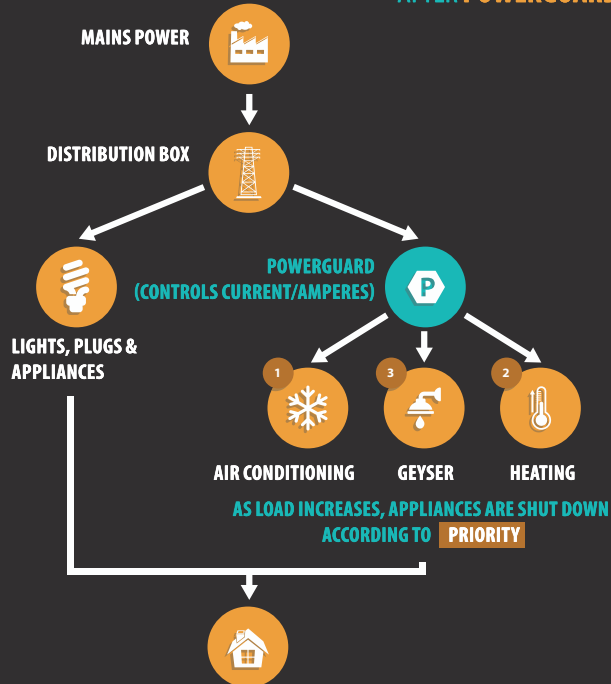
Our comprehensive billing recovery service takes the pain out of liaising with municipality to rectify incorrect payments. We project manage the entire process – from investigative stages and engagement with municipal officials to facilitating correct billing and recovery of money.

## 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 1000 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 and SABS certified

### CUSTOMISED SOLUTIONS THAT ARE RIGHT FOR YOU

We have a strong network of technology and energy service partners that offer a wide range of energy solutions. For commercial customers, we conduct a thorough assessment to ensure that the right solution is chosen for your business, with the following steps:

- 1 **Bill analysis** - to detect problem areas and opportunities for improvement (such as different tariff options)
- 2 **Premises Inspection** - to determine areas for cost saving
- 3 **Power measurement** - web based meter installed so that we can analyse usage data
- 4 **Proposal** - we then provide a recommendation for the most cost-effective power demand management measures to reduce your electricity costs
- 5 **Implementation** - measures are implemented with online monitoring to track effectiveness

Want to know more?

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