

# Energy as Currency: Controlling Costs to Boost Business



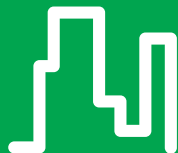
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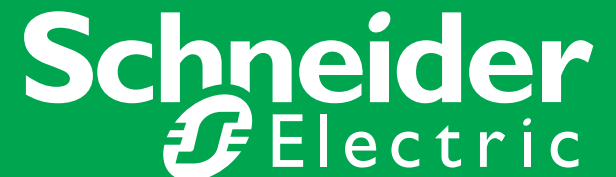
energy &  
infrastructure



buildings



data centres  
& networks



Make the most  
of your energy

# Table of Contents

Energy Is a Controllable Cost

The Financial Benefits of Change

The Role of the Energy Champion

True Savings through Active Energy Efficiency

A Solution to Enable and Sustain Energy Efficiency

What Schneider Electric Can Do for You

Your Next Steps

# Energy Is a Controllable Cost



Resource competition and political instability keep energy prices high.

## 200%

By 2050, energy demand will double and the world's population will increase 46%.  
(Source: [www.worldenergy.org](http://www.worldenergy.org))

## 60%

Increase in the demand for electricity in new economies by 2030.  
(Source: *International Energy Agency (IEA) 2007.*)

Like a corporate vision or market strategy, the commitment to energy efficiency starts at the top. In good times and bad, your leadership drives the success that your shareholders expect.

As businesses worldwide grapple with the need to fundamentally change the way they view energy, that leadership is needed more than ever. No longer is electricity paid for alongside the phone bill and Internet service—no longer is energy an overhead cost, a minor company expense that is only marginally controllable.

**Today, energy is more than expensive—it's a liability.** Its fluctuating cost, and your reliance on it, is putting the future of your business at risk. The good news: you can reduce future risk, and control that cost, through energy efficiency.

When energy was cheap, conserving it was unimportant. Now, however, energy use is at an all-time high, and that figure is projected to increase dramatically. In fact, by 2050, the global demand for energy is predicted to double.

Couple this trend with a series of factors that are sending current energy prices skyrocketing—global legislation to limit climate change, geopolitical instability and a growing reliance on information technology in emerging countries—and one thing becomes clear:

**The energy problem is not going away.**

As a result, we see the energy bill quickly working its way up the corporate ladder, a clear reflection of the bill's recent growth. But with a series of governmental regulations in the works worldwide, it's only a matter of time before energy efficiency becomes mandatory.

For you, a leader in your organisation, all this points to opportunity. Schneider Electric can help you reduce your company's energy consumption by up to 30%, while at the same time minimise the impact of future energy cost increases.

At Schneider Electric, we aim to minimise your risk. And with our help, you can start making the most of your energy.

# The Financial Benefits of Change

## Customer Case: Tarmac Southern Limited (U.K.)

- > 10,000 employees
- > UK market leader in aggregates, mortar, concrete blocks, and asphalt

**62%** reduction in average power used

**14-month** payback period for the installation



If your business was wasting money on a daily basis, wouldn't you take a closer look, and do all that's in your power to stop that from happening?

**The point here is that energy is being wasted, and energy is money.** But at Schneider Electric, we've found that the converse is also true—when you invest in energy efficiency, your efforts are realised in the form of increased revenue.

There are several metrics with which to justify an energy efficiency programme, chief among them is the speed at which your business sees the return on your energy investment. Though your results may vary, we find that many efficiency projects are paid back within two years of completion.

} Energy savings in a building can reduce overall operating costs by 10%.

Such information can be clearly defined and explored in our first recommended step to energy efficiency: A certified Schneider Electric energy audit.

**Of course, any kind of success starts with a commitment from executive management—your company's "champion of energy efficiency."** This person will be the driving force behind the project, the person who will consistently monitor and maintain progress. And while efficiency is a long-term commitment—your business can start realising the benefits immediately.

In fact, your business can decrease its energy bill by 10% even before any capital investment. Using the information from the energy audit, you can find out where and how your money and energy is being wasted, and where it's being put to good use.

With an energy audit in hand and a champion of energy efficiency in-house, the benefits of implementing an energy programme are undeniable:

- Significantly reduced energy consumption, resulting in lower energy costs and reduced emissions
- Optimised per-unit energy costs through tried-and-tested strategies
- Improved reliability and availability of power
- Improved workforce productivity

# The Role of the Energy Champion

Embrace a system of energy management, and your business can cut its energy consumption by up to 30 or even 40%—savings that can translate into a 10% reduction in overall operating costs.

But this type of energy success demands an organisational process that improves business performance—and herein is where the energy champion's role becomes crucial.

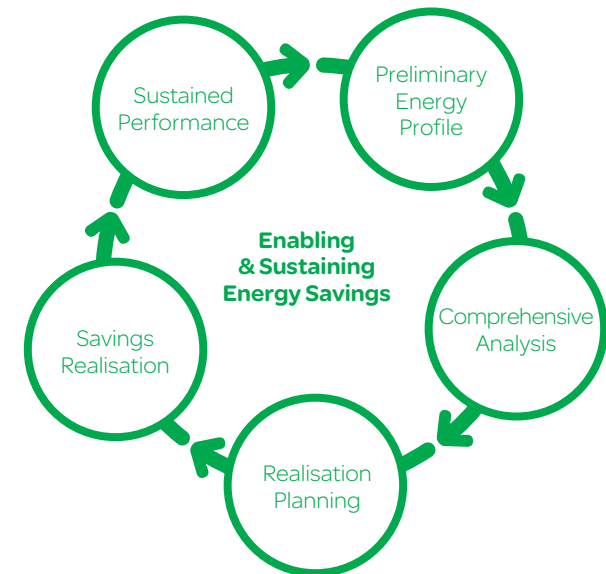
**Executive management must commit to formulate, communicate, and embrace an energy management policy.** The champion, then, is the person committed and responsible for achieving the results that you've deemed possible.

This person is the lynchpin that holds the project together—collecting, analysing, and reporting energy information. How detailed should the information be? Since you can only identify areas of improvement by measuring and analysing your current energy usage, the more detailed, the better.

And this is where Schneider Electric can again offer assistance, as your energy specialist in realising significant and sustainable energy savings. With the help of a point of contact within your organisation, Schneider Electric can:

- **Serve as your energy manager**, improving your business via metering, monitoring, control solutions, and optimisation services.
- **Serve as your energy expert**, improving your business via consultation services, technical and behavioural energy action plans, and implementation services
- **Serve as your green partner**, improving business via environmentally-friendly and energy-reducing products

**Simply understanding where and how you use energy** can yield up to 10% savings without any capital investment, using only procedural and behavioural changes.



## 30%

The energy savings achievable with a Schneider Electric solution today.

## 2 years

or less is the average payback time on many energy-efficient investments.

# True Savings through Active Energy Efficiency

Most people are aware of the passive opportunities to save energy—using product-based systems such as better insulation, heat-retaining windows, and energy-efficient light bulbs.

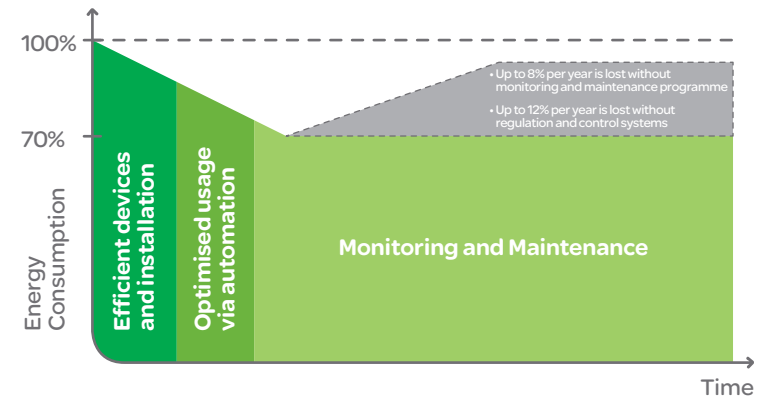
However, this represents but a small portion of the energy saving opportunities. To truly optimise your energy savings, you need an intelligent energy solution, made possible via Active Energy Efficiency.

Active Energy Efficiency employs systems such as building automation, variable speed motor drives, lighting, and HVAC control to maintain efficiency amid a shifting environment. When fewer people are in the building, the building automation system knows to adjust the heat and lighting appropriately. When production slows down, variable-speed drives constrict the energy use to the needed amount.

**This philosophy stems from fact: Human behaviour is unreliable.** A few slip-ups with lights or temperature can add up to a big cost on the energy bill. And right there, your energy efficiency savings are lost.

**Automated systems preserve savings so that you don't have to depend on human behaviour to maintain your hard-won gains.** It achieves what passive systems cannot: Control over the overall system, ensuring that each facility or component is only using the energy required. It provides the means to manage the human element, and drives continued improvement over time.

**Robust Automation, Control, and Monitoring of Energy Use** can deliver up to 30% energy savings.



## 2 to 8%

Savings gained through permanent monitoring and improvement.

## 5 to 15%

Savings gained through optimised usage of installation and devices.

## 10 to 15%

Savings gained through efficient devices and an efficient installation.

# A Solution to Enable and Sustain Energy Efficiency

## Customer Case: University of New Hampshire (USA)

- >10,000 students
- >40 buildings

**\$4 million** saved in energy costs



Ambitious energy goals are possible today. In most installations, Schneider Electric—the world leader in energy management—can target up to 30% energy savings using existing technologies.

To help you make the most of your energy, Schneider Electric uses a four-step process to ensure that your business meets both its short- and long-term efficiency goals:

- 1. Measurement.** Energy and power quality meters, along with an in-depth energy audit, are the first crucial steps in implementing energy efficiency. Because after all: You can't manage what you don't measure.
- 2. Fixing the basics.** Incorporating low consumption devices, insulation material, and power factor correction are just a few ways your company can see immediate energy savings. However, without proper control, these measures often mitigate against energy losses rather than make a real reduction in energy consumed.
- 3. Automation.** Optimising systems such as lighting and HVAC through automation is a key element of what we call Active Energy Efficiency—the process of effecting permanent change through the measurement, monitoring, and control of energy usage.
- 4. Monitor, maintain, and improve.** Energy efficiency needs a structured and persistent approach. Energy management software, maintenance services, and remote monitoring systems can help businesses see continued results, setting the stage for the next cycle of improvements.

**Passive Energy Efficiency:**  
1/3 to 1/2 of potential savings.

**Active Energy Efficiency:**  
1/2 to 2/3 of potential savings.

# What Schneider Electric Can Do for You

**Schneider Electric is the global specialist in energy management**—in fact, we're involved in about 72% of the world's end-user energy consumption.

Leveraging our world-class competencies in information technology, energy management, automation, security, and more, we deliver simplified solutions to our customers at all levels of energy consumption.

In short, we help organisations get more from their energy with solutions that make their businesses more productive and sustainable. Our broad portfolio of activities in efficiency management makes energy:

- **Safe**, with power and control
- **Reliable**, with critical power and cooling services
- **Efficient**, with energy efficiency
- **Productive**, with industrial, building, and home automation
- **Green**, connecting renewable energy sources with ease, reliability, and cost-effectiveness

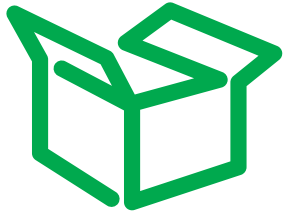
Our global team of certified energy architects are highly qualified to make sure you get the most from your workforce, process, and installation. Project management, expert advice, customised maintenance contracts, and on-site training are just a few ways our global service team can help you improve performance and control your investments.

Choosing to partner with Schneider Electric ensures you a customised, high-performance solution to manage your energy and maximise production. Innovation is core to our philosophy, and we will continue to pass on new technologies that will enable further efficiency in practical and economically feasible ways.

So choose Schneider Electric. **Make the most of your energy.**

## 72%

The worldwide energy consumption Schneider Electric addresses.



Today's technologies



A growing business



**Up to 30%  
savings right now!**

For you, 30% energy savings is achievable with today's technologies. Up to 40% of the potential savings for a motor system are realised by the drives & automation. Up to 30% of the potential for savings in a building lighting system can be realised via the lighting control system.

## Your Next Steps

### Become an Energy Champion

Train leaders within your business to become champions of energy efficiency.

→ Visit [www.myenergyuniversity.com](http://www.myenergyuniversity.com) today and enter the key code "Champion" to register for a wide range of free, on-demand courses.



# Leading the way in Energy Efficiency

Schneider Electric provides integrated solutions for homes, buildings, industry & infrastructure, and data centres.

Our enabling products, services and energy management systems help you make significant energy savings.

Build a sustainable energy strategy that improves your business performance while helping the environment.

Save more than the planet.

## Make the most of your Energy



## To find out more

Simply contact our Customer Care Centre on 0800 652 999 or discuss with your electrical contractor.

> [www.schneider-electric.co.nz](http://www.schneider-electric.co.nz)

> Make the most of your energy

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**Schneider Electric (NZ) Ltd.**

38 Business Parade South, East Tamaki, Manukau 2013  
PO Box 15355, New Lynn, Waitakere 0640

Tel: +64 9 829 0490

Fax: +64 9 829 0491

Customer Care: 0800 652 999

Email: [sales@nz.schneider-electric.com](mailto:sales@nz.schneider-electric.com)

