

# EnergySTEP

Sustainability Tiered Efficiency Program

Make the most of your energy<sup>SM</sup>

**Schneider**  
Electric



Our experts help  
you save energy  
and free up capital  
for reinvestment  
with EnergySTEP

# Take the next step towards a sustained energy efficiency program

> We'll show you how

Energy prices are rising. Budgets are shrinking. Strict energy regulations are being enacted by governments around the world. Sustainability is becoming an important part of business strategy.

What's the impact on your business? Increased pressure to adopt sustainability plans with measureable goals and results. You need to reduce energy consumption and optimize the performance of your people, your assets and your enterprise. How do you meet this challenge? Choose a partner that enables performance.

Schneider Electric is the global specialist in energy management. We help customers around the world address the business, environmental and regulatory issues that drive their need for energy efficiency. Our solutions reduce carbon emissions and consumption of electricity, water, air, gas and steam, while improving business performance and employee productivity.

Our Energy Management Services portfolio includes the Schneider Electric Energy Sustainability Tiered Efficiency Program, or EnergySTEP—a unique, scalable energy management service that enables you to easily align your energy savings goals with investment capabilities. EnergySTEP simplifies the often complex energy reduction choices that confront executives, by providing a straightforward, flexible solution that creates ongoing, measurable savings.

EnergySTEP frees up capital that would otherwise be used for energy expenditures, allowing you to readily fund strategic initiatives that are vital for long-term success, while creating a measurable path forward for sustainability and environmental efforts.



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## ★ Make an impact on your environmental balance sheet

- Adopt a clear plan that is simple to measure and communicate to stakeholders.
- Reduce your carbon footprint and environmental impact.
- Improve public, market and leadership efficacy perceptions of your company.
- Instill pride in employees, who know that their company is taking real steps forward to conserve energy.

# Energy and operating costs

> You want a simple way to improve your bottom line

Energy is typically your fastest growing expense, and it often consumes up to 30% of an operating budget.

## Energy is the largest controllable operating expense

- Supply and labor costs are rising, while revenue and margins are shrinking
- You want to preserve and increase the value of your company
- You need to uncover hidden savings in your building to offset rising and unpredictable energy costs
- You want to invest your assets wisely, with measurable ROI



# Energy and production costs

> You're looking for ways to make productivity gains

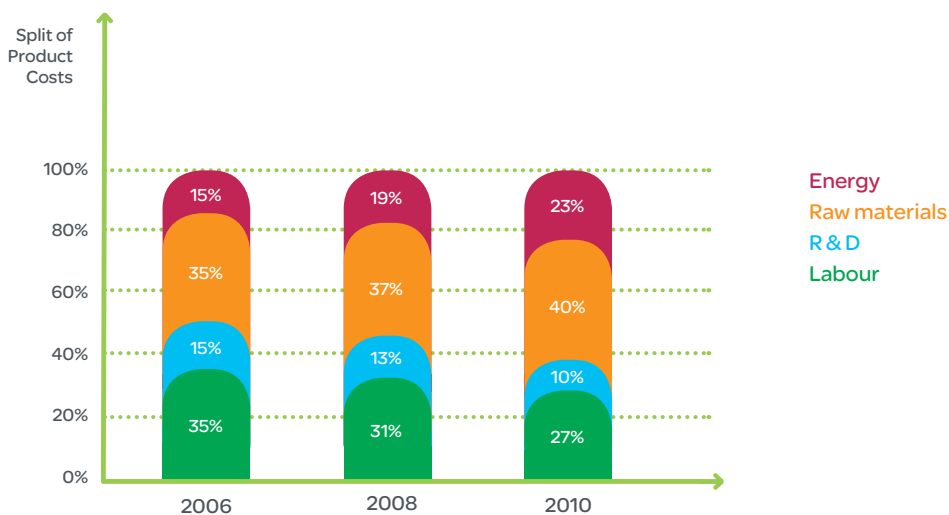
You're in a competitive sector with strong pressure on profitability due to the rising cost of energy.

## Energy is having an increasingly significant impact on each product

- You're looking for a better understanding of your energy situation
- You want to turn this constraint into an opportunity for growth



## Impact of energy costs on industry

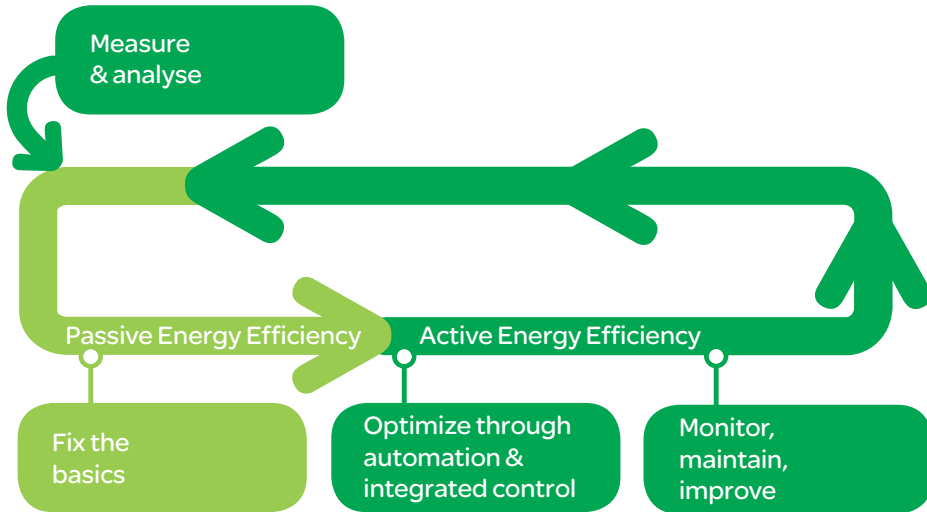


According to *Sustainable Facility*, energy makes up 30 percent of operating costs for the average company.

# EnergySTEP

> A simple, scalable approach to energy savings throughout the energy efficiency life cycle

EnergySTEP is a tiered approach to energy efficiency, allowing you to align your savings goals with your investment capabilities. EnergySTEP allows you to save energy and reduce GHG emissions across the entire energy efficiency life cycle.



> A proven methodology for energy efficiency

Our structured process, professional software and worldwide network of energy experts help you generate both short-term quick savings and long-term energy management plans. We help you achieve sustainable savings that decrease your operating expenses and boost your bottom line.

## Identify potential savings

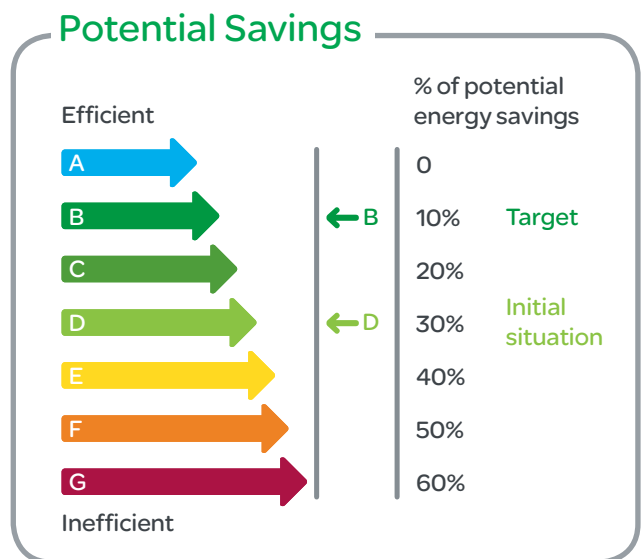
- Increased visibility of your energy consumption
- Benchmarking of your electrical equipment and installations
- Energy savings solutions with estimated ROI report

## Invest to reduce consumption with proof of profitability

- Prioritisation of your energy efficiency management plan
- Optimised tariff management and reduction of electricity bill
- Reduction of CO2 emissions
- Commitment to achieved savings

## Monitor and sustain savings

- Monitoring of all energy sources
- Key Performance Indicators (KPI) definition
- Real time monitoring and continuous improvement



★ Solutions suited to your investment capacity

- Detection of potential savings
- Demonstration of proof of savings

# A baseline for performance measurement and verification

➤ For factual performance reporting to management and enhancement of your continuous improvement program

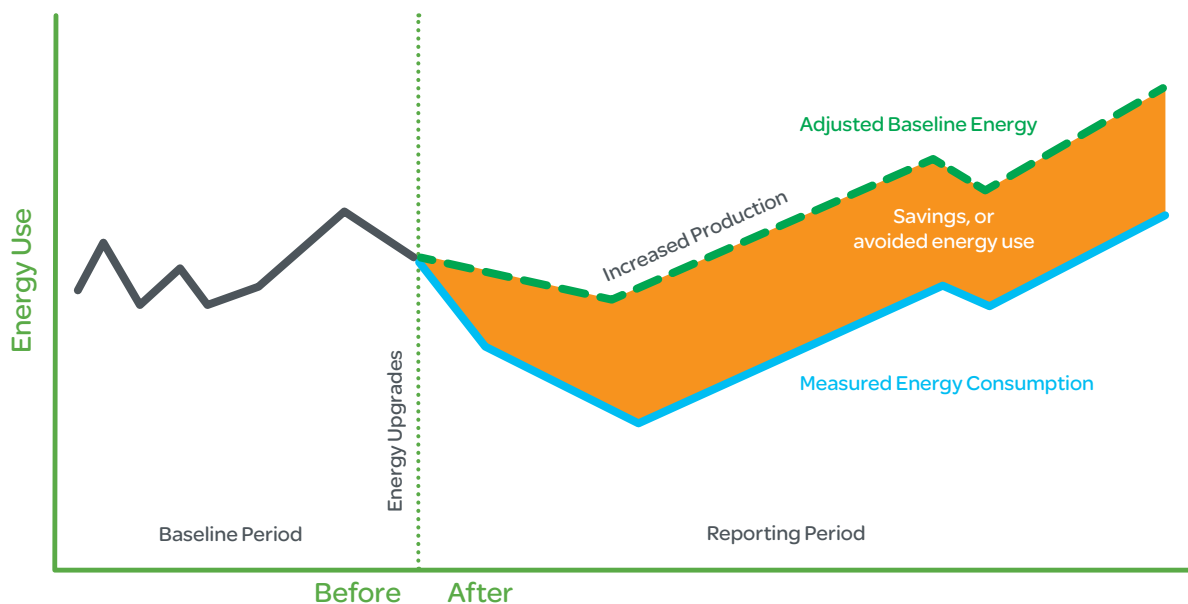
## Proof of efficiency: measurement and verification program

- Prove and document the Return on Investment of your EnergySTEP solution by comparing energy use before and after the implementation of energy savings measures
- Improve installation engineering, operation and maintenance
- Manage energy budgets
- Make your organisation aware of the savings
- A transparent, all-inclusive, accurate, consistent and conservative plan compliant with the international IPMVP baseline ([www.evo-world.org](http://www.evo-world.org))

## Follow-up of energy goals

- Set energy use goals and targets for reduction
- Technical and economic consumption reporting
- Tools for building IPMVP Baseline adjustments

## Measurement and verification plan applied to energy efficiency investment



// Every dollar I save in energy use goes right into the Gross Operating Profit. Hotel occupancy is very dynamic. If 60 percent of the hotel is vacant, I don't need to run the systems there. //

— JoJo Estrada,  
Chief Engineer,  
Westin Resort  
Macau, China

# Schneider Electric solutions

## > Implementation of full solutions for specific applications

### HVAC Energy

- Optimization of flow rates, set points, schedules, combustion, and operating parameters
- Variable speed technology to provide adaptive operation for all inductive motor loads
- Commissioning and refinement of building automation systems for peak efficiency
- Outside air controls to perfectly measure and deliver fresh air, minimizing excessive heating/cooling



### Indoor and outdoor lighting

- Occupant sensing and scheduling for optimized run time
- Motorized breakers for area- and time-specific control
- Light level sensing integrated with dimming and window covering controls for customized interior light levels



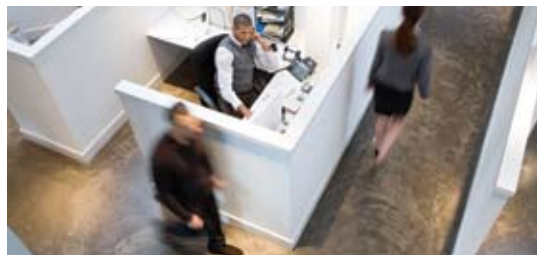
### Power monitoring of water, air, gas, electricity and steam

- Consumption that closely fits business needs
- Examination of energy use during occupied and unoccupied times
- Energy use analysis to discover opportunities for decreased demand, consumption, and cost
- Power Factor correction to eliminate unnecessary distribution charges



### Positive cold refrigeration, process cooling, industrial water

- Organisation of refrigerating power, leak detection, adaptation of operating pressure, peak efficiency
- Measurement of flow rates, analysis of consumption and operating costs



### Compressed air

- Detection of leaks and adaptation of operating pressure, efficiency
- Measurement of flow rates, analysis of consumption and operating costs

### Behaviour and communication

- Empowerment regarding the link between consumption and production
- Best practices on the part of management, occupants, and operators



# A few EnergySTEP references

## Mining, minerals & metals

- Reduction of penalty for low power factor, thanks to capacitor banks system
- Payback period < 18 months



## Infrastructure: water treatment

- 30% saving achieved on a boosting and transfer pumping system
- Payback period < 2 years



## Data Centres

- Power Usage Effectiveness (PUE) improved by 20%
- Payback period < 12 months



## Education

- 31% reduction in energy costs through central plant optimization, power factor correction, lighting control, expansion of energy management system, and more
- 1.2 million USD annual savings
- Payback period < 7 years



## Healthcare

- Reduction of energy due to HVAC, lighting, chiller and control system upgrade
- Water conservation measures
- Energy management system
- Payback period < 7 years



## Green Buildings

- EnergySTEP applied to our offices, plants and corporate headquarters— a green building that has earned HQE Exploitation, NF EN 16001 and ISO 14001 certification
- Roll-out of EnergySTEP program in more than 170 Schneider Electric facilities around the world: 10 to 20% energy savings achieved using the full set of solutions
- Benchmark vision thanks to repeatable methodology



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