

# Coping with the Crisis: Increasing Resilience in Small Businesses in Europe through Energy Efficiency

Proposed Energy Saving Strategies

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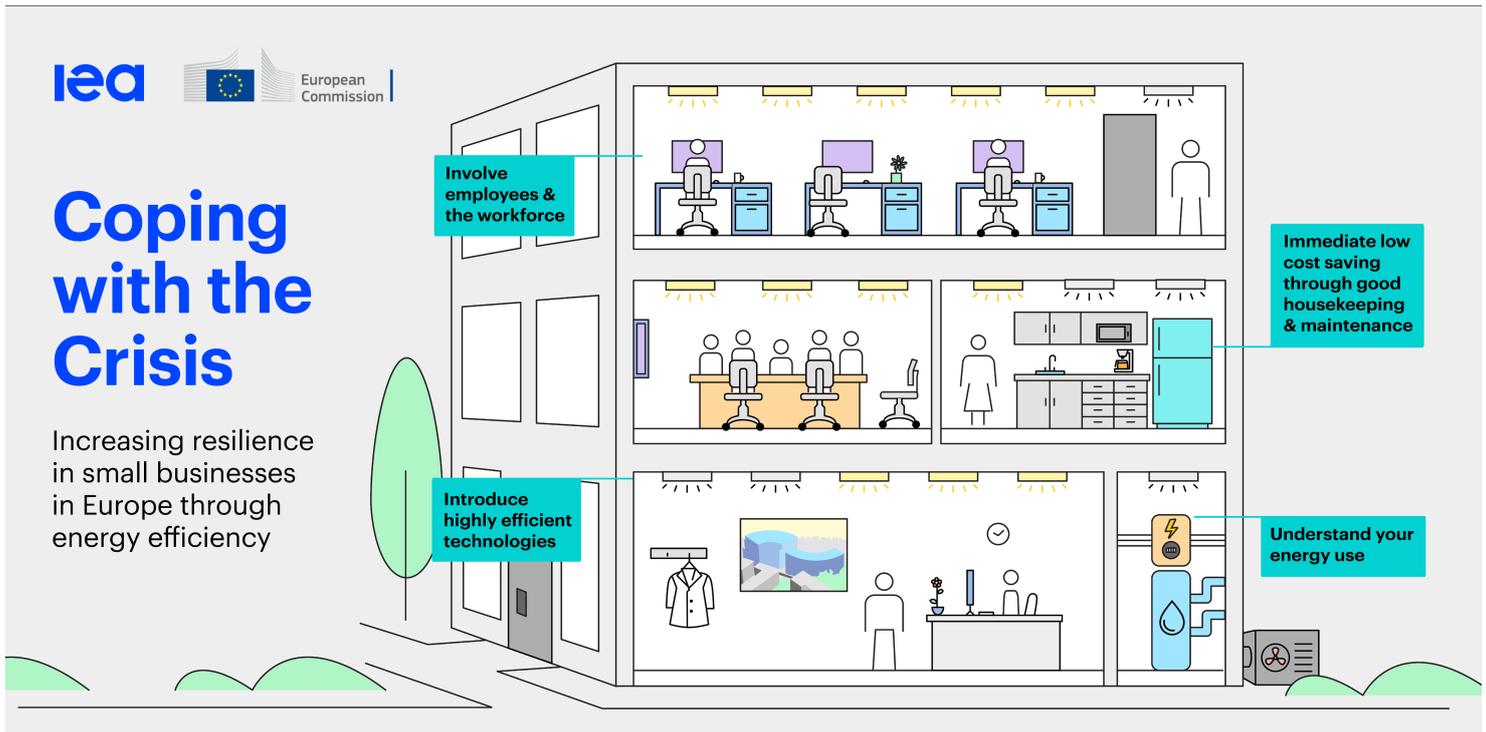
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## Introduction

Today's global energy crisis has driven up the cost of fuels and electricity, creating shortages and hurting consumers, businesses and entire economies. Small to medium enterprises (SMEs) are some of the most exposed economic players, lacking the margins, economies of scale, and support staff that allow larger companies to mitigate the impact of the crisis. At the same time, SMEs are the backbone of economies around the world, making their survival essential.

To help smaller businesses overcome these perilous challenges and to sustain European economies, the European Commission and the International Energy Agency have teamed up to raise the awareness of governments, businesses and related stakeholders about the available options to empower and protect SMEs. These include EU support measures currently available to SMEs that can be tailored to meet their specific needs. They also include steps that businesses can take themselves to use energy more efficiently and wisely, making them more resilient and secure – both in the short and in the long term.

In this document, the sections on setting the scene, what the European Union can do, and what national governments can do were prepared by the European Commission. The section on what small businesses can do was prepared by the International Energy Agency.

## Setting the scene

Small and medium-sized enterprises (SMEs) are the backbone of Europe's economy and add value in every sector. They represent 99% of all businesses in the EU, employ over 80 million people and account for more than half of Europe's gross domestic product. With many small businesses already reeling from the impact of the coronavirus pandemic, the current high energy prices and supply uncertainty are creating further pressure on their survival.

### How the EU supports SMEs

Since the start of the energy crisis, the European Commission has come forward with [several initiatives](#) that aim at supporting not only households but also small businesses. Already in October 2021, the Commission published a [toolbox of measures](#) that EU countries can use to help businesses, such as income support, energy vouchers, rebates on bills or financial support for energy efficiency and renewable energy measures. More recently, an [emergency tool](#) was agreed stipulating that EU countries may temporarily set a price for the supply of electricity to SMEs to further support those struggling with high energy prices.

Besides helping them to reduce their energy consumption, which is one of the most effective ways to support SMEs in mitigating energy costs and supply risks, the EU operates several [support schemes focused on SMEs](#) that include financing, innovation and advice services. Increasingly, these schemes address the clean energy transition as a priority.

[COSME](#), the programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises, funds many initiatives that help small businesses access finance and improve their business conditions. Programmes such as the Innovation Fund, InvestEU Fund – SME window and Cohesion funds also support SMEs with tailored solutions and contribute to enhancing their sustainable growth and competitiveness, while fostering job creation within them.

Market transformation and innovation programmes such as [LIFE CET](#) and [Horizon Europe](#) contribute to supporting the transition towards an energy-efficient, renewable energy-based and climate neutral EU economy, while making companies more climate and environmentally friendly, resilient, competitive and smarter.

Support networks also play a key role to help businesses innovate and grow on an international scale. Through targeted advice services, the [Enterprise Europe Network](#), which is the world's largest support network for small and medium-sized enterprises, helps companies increase their resilience and support SMEs in their transition to more sustainable and digital business models. The [Covenant of Companies](#), a Commission's pilot initiative, also encourages SMEs to step up their contribution to a clean energy transition by providing assistance related to energy audits, the implementation of targets for the reduction of emissions and the

identification of technologies, methods and financing mechanisms that companies can use to implement their energy targets.

## What national governments can do

National and local governments are best placed to assist small businesses on their territory. Many support programmes and structures are already in place, including through financial support (via grants, loans, subsidies, tax relief or a combination of measures), information/advice services (via awareness raising, guidance, training, networks), regulation (e.g., supplier obligations and standards) and national plans or strategies. [National](#) or [regional](#) energy agencies also play a key role in supporting EU small businesses, as they are often the first point of contact for companies looking for advice to reduce their energy consumption and switch to renewable energy.

Despite the structures already in place, governments can take the following measures to further support SMEs

- **Extend existing subsidy schemes for small businesses.** Wherever possible, this should focus on investments that structurally reduce energy consumption such as the implementation of energy audit recommendations, replacement of equipment/appliances with more efficient ones, process insulation, etc.;
- **Support energy audits and advice services.** Proactively reaching out to businesses offering them energy audits and advice is a very concrete way to quickly identify opportunities for reducing their energy consumption;
- **Mandate the implementation of audit recommendations.** Where possible companies should be obliged to implement the most cost-effective recommendations coming from energy audits. This should be underpinned by financial support.
- **Support the implementation of an energy management system** (where appropriate), including energy and CO<sub>2</sub> related key performance indicators, and including them in the company's strategic decision-making process;
- **Strengthen the energy services market**, for example by increasing awareness, reducing transaction costs and providing guarantees;
- **Provide financial guarantees** for energy efficiency investments to facilitate access to finance;
- **Communicate the multiple benefits of energy transition measures** within companies, such as productivity increase through better indoor conditions for people and machines, risk reduction due to energy cost fluctuations, employer attractiveness, etc.;
- **Support the switch away from fossil fuels** towards electrification, connections to central steam production (where available) and the use of heat pumps and excess heat for the supply of low-temperature processes;

- **Support employee-led initiatives and behavioural campaigns** to motivate people to reduce energy use in the workplace (and in the home) through the inclusion of employees in their energy saving initiatives.
- **Facilitate networking** of multiple companies to simultaneously develop their energy audits or energy management systems, sharing best practices, joint training, etc.;
- **Ensure easy access to relevant information**, for example on funding opportunities, advice services, business networks, where appropriate in collaboration with trade associations.

There is an important role for national or regional energy agencies in supporting small businesses. Often, they are the first point of contact for companies looking for advice on how to reduce energy consumption and switch to renewable energy. An overview of all European energy agencies can be found through the Network of European Energy Agencies (Members – European Energy Network ([enr-network.org](http://enr-network.org))) and on the ManagEnergy website: ManagEnergy.

## What small businesses can do

### Understand your energy use

A better understanding of where, how and why energy is used can help a business unlock multiple opportunities for both immediate savings and longer-term efficiency improvements. An analysis of energy bills and processes can be the first step, followed by increased monitoring of management systems for continuous improvement.

- Smart meters and controls - when used to identify energy saving opportunities and manage energy use - can reduce energy use by up to 40% at little or no extra cost.
- Energy audits play a crucial role and have most impact when they include a method to certify the savings achieved. They have been proven to provide potential average savings of 18% of total energy use.
- Energy Management Systems that set out achievable targets for energy use and action plans to reach targets and measure progress can lead to an average reduction in annual energy use of between 10% to 17%.

### Involve your workforce

Employees are valuable resources, uniquely placed to understand the organisation's energy use, identify efficiency opportunities and undertake energy saving actions. Actively engaging the work force on measures to increase energy efficiency and savings has been shown to benefit both the employee and the organisation. Energy training and awareness campaigns, with the appointment of energy officers and an energy team, have been shown to deliver almost 6% annual

energy savings, which increases to 21% when combined with technological support and expertise.

## Introduce efficient technologies

Replacing inefficient equipment, even before the end of their useful life, with new best-in-class efficient equipment can lead to immediate energy savings, typically with short payback times, and can reduce reliance on unsecure fossil fuel sources.

- Lighting - LED lights last up to five times longer than traditional bulbs and use up to 90% less energy.
- Motors and motor systems - The energy cost of the typical electric motor over 20 years of service is 50 times its purchase price. For every euro invested in improving the energy efficiency of motor-driven systems, at least seven will be saved in energy use over the lifetime of the equipment
- Boilers and Heaters – For most space heating and processes in small enterprises, an efficient heat pump is four times more efficient than a traditional fossil fuel boiler and reduces the business' reliance on unsecure fossil fuel sources.
- Compressors - Energy accounts for more than 75% of the ownership cost of a compressor. Correct sizing of the compressor load can reduce the energy consumption of a compressed air system by over 1/3.

EU businesses, citizens and public authorities can consult the [European Product Registry for Energy Labelling](#) (EPREL) to obtain information and compare the energy efficiency and other details about a wide range of products.

## Good housekeeping and maintenance provide immediate savings

An average small business could reduce its energy bill by up to 30% by implementing good housekeeping and maintenance measures.

- Heating and Cooling: Heating costs increase by around 8% for every 1°C increase. Smart programmable thermostats can cut heating costs by between 5% and 15%. Additional low cost measures such as lowering boiler flow temperatures and insulating/draught proofing doors and windows can deliver immediate savings
- Refrigeration: Refrigeration can represent up to 50% of electricity costs for some businesses. Maintenance alone can decrease refrigeration energy use by up to 10%.
- Compressed air: Compressed air can be responsible for 10% of an enterprise's energy bill, and half of which can be due to easily repaired leaks. Furthermore, reducing air pressure by just 10% can lead to 5% energy savings.

- **Motors and Drives:** Increased control over motor operating parameters can reduce energy use by 15%-40%. Replacing a conventional motor driven pumping system with an energy efficient system can result in a 57% reduction in energy use.
- **Lighting:** Lighting can be responsible for up to 40% of a building's electrical use, and using lighting controls has been shown to reduce lighting energy use by over one third.
- **Insulation:** Simply insulating pipework has been found to reduce energy losses by over 75% while maintaining comfort levels.

#### *Additional resources*

- [Coping with the Crisis: Increasing Resilience in Small Businesses in Europe through Energy Efficiency](#)
- [Action and measures on energy prices](#)
- [Entrepreneurship and small and medium-sized enterprises \(SMEs\)](#)
- [Energy efficiency](#)
- [EPREL - European Product Registry for Energy Labelling](#)

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