



Enabling Commercial Retrofit

Future-Proof Your Business & Meet Regulations An SME Guide to Energy Upgrades For Building Owners and Building Occupiers June 2025





About This Guide

Energy upgrades can offer valuable benefits for your business, customers, brand, and the environment. By improving energy efficiency of your building, you can reduce operating costs, enhance your reputation, boost property value, improve occupiers' comfort and well-being and lower your environmental impact. At the same time, there is growing pressure—from customers, lenders, investors and regulations—for businesses to take action on sustainability and energy performance.

This guide is designed to help **SME owners and occupiers of commercial building**—offices, retails, bar/restaurants, hotels, leisure complexes and warehouses—**navigate energy upgrades more easily**.

What You Will Learn:

- Why energy efficiency matters for your business: Understand the benefits of energy upgrades.
- Why your actions matter: Discover the bigger impact of your efforts in climate action.
- How to take action on energy efficiency: Follow SEAI's steps with some key tips at each step.
- What key sustainability jargon means: Understand terms you may need to know.
- What legislation may affect your business: Know the legislation that matter now and what's coming.

Developed under the SEAI-funded **ENACT research project**, this guide supports SMEs in accelerating building energy upgrade. It complements the "Financing Business Energy Upgrades – A Guide for SMEs and their Financial Advisers" and "A Case Study Technical & Financial Analysis", providing actionable steps to start your energy upgrade journey.

Note: This guide offers general guidance only and is **not tailored** to specific businesses. For legal, financial, or technical advice related to your circumstances, consult a professional.



Why Energy Efficiency Matters for Your Business: The Benefits of Energy Upgrades

Improving your building's energy efficiency delivers significant advantages—from cost savings and higher property value to compliance and better occupant wellbeing.

The benefits vary depending on whether you own or occupy the building, but both stand to gain real value. Below is a breakdown of the key benefits for each.

For Building Owners

Investing in energy upgrades delivers higher property value, lower costs, and future-proof compliance, while making your building more attractive to tenants. Improving the energy performance of your building also strengthen your competitive edge and unlock financial incentives.

1. Increase property value and attract tenants

- Improving your building's energy performance makes it more valuable and appealing to prospective tenants or buyers.
- Higher Energy Performance Certificate (EPC) ratings can lead to higher rental or sale prices.
- Better Building Energy Rating (BER) and Display Energy Certificate (DEC) ratings improve the property's marketability.
- Features like solar panels and EV charging stations make properties more appealing.

2. Reduce operational and maintenance costs

Energy upgrades can lower your ongoing costs through efficiency and renewable energy. They also reduce wear and tear on building systems, leading to lower maintenance needs and long-term savings on repairs and upkeep. For example:

- Solar Photovoltaic (PV): Delivers up to 50% savings on business electricity, with a 5-year payback and a lifespan of over 20 years.
- Insulation and airtightness: Reduce energy costs by 7-15%.
- LED lighting: Save up to 70% on lighting energy.
- HVAC and water systems: Upgrades to air handling units and water pumps can save 50-75%.



3. Avoid penalties and comply early with regulations

- Meet current and future energy performance regulation.
- Avoid potential fines for non-compliance with energy performance standards.
- Access to green financing, grants, tax breaks, and subsidies for upgrades.

4. Strengthen business value

- Investing in energy efficiency today helps protect your property from becoming outdated or financially risky as sustainability standards tighten.
- Aligning with sustainability trends boosts competitiveness in the market.
- Obtaining green certification, such as LEED or BREEAM, can enhance brand reputation.

For Building Occupiers

An energy-efficient building means lower bills, a healthier workspace, and a stronger sustainability profile helping you meet your sustainability commitments while improving comfort and productivity. Access to energy data also supports smarter business decisions and ESG reporting.

1. Lower energy bills

• Efficient systems and building improvements can reduce energy consumption and provide more certainty and control over energy use.

2. Boost brand reputation and/or support sustainability commitments

- Renting an energy-efficient building can help support your sustainability commitments and demonstrate sustainability responsibility to clients and stakeholders.
- Shows leadership in sustainability and the transition to energy efficiency.
- Improves your brand image.

3. Increase comfort, wellbeing, and productivity

 Improved thermal comfort and air quality, resulting from energy upgrades, can enhance occupant satisfaction, comfort and wellbeing.

4. Access to building's energy data

- Visibility of building performance helps inform business decisions.
- Supports ongoing energy management.
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- Enables shared learning and collaboration with building owners.
- Makes building energy performance monitoring part of business strategy.
- Supports your supply chain ESG (Environmental, Social, and Governance) reporting (if required).

For Both Building Owners and Occupier

Beyond financial and operational gains, energy-efficient upgrades help meet climate targets and demonstrate social responsibility. Your actions contribute to a larger collective impact—especially critical for SMEs.

Next: Learn how your efforts play a key part in driving meaningful change.



Why Your Actions Matter: The Bigger Impact of Your Efforts in Climate Action

As building owner, you have control over big-impact changes. Upgrading insulation, switching to renewable heating, or installing solar panels do more than lower operating costs—these action can significantly cut carbon emissions from your property.

Even as an **occupier**, you still have influence. How you use energy—for lighting, heating, and equipment affects your carbon footprint. Making conscious decisions from lighting choices to heating schedules and equipment management can significantly reduce it.

Together, your actions help Ireland meet its climate targets set to tackle climate change. The country has committed to:

- Reduce energy-related greenhouse emissions from commercial buildings by 45% by 2030 (vs. 2018 levels).
- Have at least 70% of national electricity from renewable sources.
- Achieve at least a 32.5% national improvement in energy efficiency.

Yet progress needs to accelerate. While only an 8.9% reduction in commercial building energy-emissions was achieved by 2023, SMEs like yours can help close this gap through:

- Performing energy upgrades (better insulation, lighting, HVAC).
- Switching to renewable energy sources (solar, heat pumps).
- Optimising energy use (smart controls, efficiency habits).

Your efforts, combined with others', will drive the real progress Ireland needs to meet these critical targets.



How to Take Action on Energy Efficiency

Now that you understand the impact of your efforts, the next step is implementation. The <u>SEAI's Steps to</u> <u>energy efficiency</u> breaks the process into five manageable steps. Below, we outline each step with key tips to consider to help you navigate the process. To learn more about each step visit the SEAI webpage.

Step 1. Understand your energy use

For Building Owners

- Start by reviewing your energy bills to establish a baseline of your current consumption.
- Check your property's energy rating to identify improvement areas, for example through the <u>SEAI</u> <u>Building Energy Rating (BER)</u> webpage.
- Look for energy waste patterns, like unnecessary nighttime heating or lighting left on overnight.

For Building Occupiers

- Review your energy bills and track your unit's energy consumption.
- Share usage data with the owner to collaborate on savings.
- Talk to the building owner about any operational issues affecting energy use. For example, drafty windows or overactive HVAC.

Step 2. Create an energy plan

For Building Owners

- Identify a mix of quick wins and long-term investments to include in your upgrade plan (for example, LED lighting upgrades vs. insulation).
- Consider using green lease clauses in contracts to formalise data sharing and cost-sharing agreements for energy upgrades with tenants.
- Research available financial supports for energy upgrades and renewables. For more information, see the "Financing Business Energy Upgrades – A Guide for SMEs and their Financial Advisers".

For Building Occupiers

• Propose no-cost behavioural changes. For example, use natural daylight instead of artificial lighting when possible.

- Identify simple changes your team can make and assign responsibilities to ensure follow-through. For
- example, nominate someone to check that lights and equipment are turned off at the end of each day.
 Negotiate lease terms to encourage energy-saving investments. For example, propose a lease clause to
 - share the cost of energy upgrades and ensure that savings benefit both occupier and owner.

Step 3. Complete an energy audit

For Building Owners

- Hire a professional to assess your building's insulation, heating systems, and equipment efficiency.
- Evaluate the lifecycle of existing equipment and plan replacements with energy-efficient models.

For Building Occupier

- Check your devices and appliances to spot energy waste and plan future upgrades.
- Request the energy audit results from the building owner to identify opportunities to save energy in your unit.

Step 4. Invest in energy efficiency upgrades and renewables

For Building Owners

- Once you have identified relevant energy upgrade opportunities, build a strong business case to show why they are worth the time and money.
- Begin with cost-effective upgrades like smart thermostats and LED lighting before moving to larger projects such as solar panels or heat pumps.
- Apply for SEAI grants to offset costs. For more information, see the "Financing Business Energy Upgrades – A Guide for SMEs and their Financial Advisers".

For Building Occupiers

- Upgrade to efficient office equipment. For example, ENERGY STAR-rated.
- Advocate for owner-led improvements that reduce your bills.
- Liese with building owner to schedule upgrades during downtime to minimise disruption.

Step 5. Monitor, track and report

For Building Owners

• Install smart meters or building management systems to track energy use after upgrades.

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- Compare your new energy bills to your original baseline to measure savings.
- Regularly review lease terms to ensure they continue to support energy-saving goals.

For Building Occupiers

- Compare your new energy bills to your original baseline to measure savings.
- Work with building owner to adjust heating, lighting, or equipment use for greater efficiency. For example, off-peak scheduling.

Key Takeaway: Collaboration is key

Shared goals, shared savings-working together unlocks the biggest benefits.

- Whether you are a building owner or occupier, open communication about energy goals during lease renewals can lead to better outcomes for both parties.
- Explore shared investments in energy upgrades that lower both costs and carbon footprints.



What Key Sustainability Jargon Means

Navigating the energy efficiency process requires getting familiar with common terms associated with it. Understanding key simple concepts can help you engage with practical advice, legislation and discussion.

Below, we highlight terms most relevant to SMEs. Some of these are taken from the Climate Jargon Buster by Government of Ireland and EPA (For the full glossary check <u>climatejargonbuste.ie</u>). The terms listed below are simplified explanations that describe key ideas and concepts—not strict scientific definitions.

Building Fabric upgrades: This refers to any improvements made to the physical elements that form the building envelope i.e. the walls, roofs, windows and doors.

Carbon emissions: Carbon emissions are created when particular gases are released into the air from activities like burning fossil fuels for energy. It includes gases like carbon dioxide and methane. This is because they both contain carbon. 'Carbon emissions' is sometimes used as a shorthand to describe all greenhouse gases.

Carbon footprint: Measures the carbon emissions linked to a particular activity or product. It includes emissions involved in all stages of making and using a product, or carrying out an activity. The lower the carbon footprint the less that a product or activity contributes to climate change.

Carbon neutral: This means that the amount of greenhouse gas released into the air equals the amount removed from the air.

Climate change: This is a change in long-term weather patterns due to natural forces, or human activity, or both.

CE marking: Label that indicates that a product has been assessed by the manufacturer and deemed to meet EU safety, health and environmental protection requirements.

Decarbonisation: This happens when we stop using fossil fuels throughout the whole country.

Emissions: These are gases or particles released into the air that can contribute to global warming or poor air quality.

Fossil fuels: Fuels – such as coal, gas, peat and oil – that are formed in the ground over many thousands or millions of years from dead plants and animals and are used up once they are burned for energy.



Greenhouse Gas Emissions / GHGs: Gases that trap heat from the Earth's surface causing warming in the lower atmosphere and slowing down loss of energy from Earth. The major greenhouse gases that cause climate change are carbon dioxide, methane and nitrous oxide.

Net zero emissions: This refers to achieving an overall balance between greenhouse gas emissions produced by human activity and greenhouse gas emissions taken out of the atmosphere.

Performance Gap: The difference between the predicted performance of a building during the design stage and its actual performance in operation.

Renewable energy: Energy that comes from renewable resources like wind energy, solar energy, or biomass. These resources can regenerate naturally and we can use them repeatedly without reducing their supply.

Retrofitting (energy retrofitting): In relation to buildings, energy retrofitting is anything done to improve the energy efficiency of an existing building. This usually includes upgrading the roof and wall insulation to help keep the heat in, and installing renewable energy systems like heat pumps.



What Legislation May Affect Your Business

Energy upgrades for SMEs operate within a framework of strategies, plans, and legal requirements. Understanding these layers helps you navigate related compliance. Here is how these instruments work together:

- Strategy: Big-picture idea or roadmap for how to achieve a goal.
- Plan: Detailed steps to implement the strategy.
- Legislation: Formal rule that everyone must follow.
- Directive: Official order or instruction of what must be done.

This section explains which instruments impact SMEs most, and what you need to do to comply whether you are a building owner or a building occupier.

EU Green Deal (Established in 2019)

The EU Green Deal is the **EU's strategy** to achieve climate-neutrality by 2050, economic growth that does not rely on resource use, and ensuring that everyone, no matter where they live, is included in the transition. For the building sector, this means **energy-efficient renovations**, **renewable energy integration**, and **circular construction practices**.

Key Implications

- Sets legally binding EU-wide targets: reduce greenhouse gas (GHG) emissions by at least 55% by 2030 (compared to 1990 levels), increase renewable energy by 42.5% by 2030, and improve energy efficiency by 11.7% by 2030.
- Aims to double renovation rates (35 million energy-efficient buildings by 2030)—as part of the Renovation Wave Strategy.

Why This Matters for SMEs

- Defines long-term regulatory direction for buildings.
- Increases pressure to improve energy performance and reduce emissions.

Energy Performance of Buildings Directive (EPBD) (Revised in 2024)

The EPBD is the EU's key legislation for decarbonising building, targeting a zero-emission building stock by 2050 by **improving building energy efficiency**. It sets binding renovation targets, establishes minimum energy 12



performance standards, mandates energy performance certificates (EPCs), requires the adoption of lowcarbon heating and cooling systems and the integration of renewable energy.

Key Implications

- All new commercial buildings must be zero-emission by 2030 (public buildings by 2028). This means they must have high energy performance and produce no on-site carbon emissions from fossil fuels.
- The worst-performing 16% of non-residential buildings must undergo renovations by 2030, increasing to 26% by 2033, ensuring significant emission reductions.
- Energy Performance Certificates (EPCs) are required for sales, rentals, and major renovations. They
 must be publicly displayed in areas that are frequently visited by the public (for example in storefronts
 or lobbies). The validity period may be shortened (for example: every 5–10 years), and digital EPCs may
 become mandatory in some EU countries.
- No new fossil-fuel boilers (for example: gas and oil) can be installed from 2025 in public/non-residential buildings and a full phase-out will be required by 2040.
- Solar panels will be mandatory for new commercial buildings larger than 250m² from 2026 and for existing commercial buildings over 400m² undergoing major renovations from 2027, where technically feasible.
- Electric vehicle charging points and bike parking facilities must be installed in new and renovated commercial buildings by 2026.
- Renovation passports will guide deep renovations to help building owners plan upgrades effectively.

Why This Matters for SMEs

- Minimum energy performance standards could trigger renovations for inefficient buildings.
- Non-compliance with minimum energy performance standards could eventually face potential penalties (for example: fines or restrictions for leasing or sale of properties).
- The shift to low-carbon heating, cooling, renewable energy (for example: heat pumps, solar panels), and sustainable mobility infrastructure (for example: recharging points and bicycle parking spaces) will be required for renovations or new construction.
- Energy data will need to be shared and displayed via EPCs, which in turn may affect property valuation and tenant demand.

Energy Efficiency Directive (EED) (Revised in 2023)



The EED is a **directive** that sets binding measures to **improve energy efficiency in buildings**, aiming to **reduce energy consumption** and promote **energy savings**. It establishes 'energy efficiency first' as a fundamental principle of EU energy policy, meaning that energy efficiency must be considered in all relevant policy and major investment decisions taken in the energy and non-energy sectors.

Key Implications

- Ireland (and other EU member states) must achieve cumulative annual energy savings of 1.9% by 2030, up from the previous 0.8% target, with the building sector playing a key role.
- Large companies must conduct energy audits every four years, while SMEs with an average annual energy consumption above 10 terajoules (TJ) must comply starting in 2026. Businesses exceeding 85 TJ per year must implement a certified energy management system (EMS) by 2027.
- Supports renovation and implementation of energy-efficient technologies by promoting access to onestop-shops, financial incentives, and expert advice, including qualified energy professionals (auditors, managers, installers), ensuring high-quality audits and implementation.
- Ends subsidies for fossil fuel boilers from 2025, accelerating the transition to renewable alternatives like heat pumps and solar thermal systems.

Why This Matters for SMEs

- The energy savings target may lead to stricter national policies and incentives for SMEs to invest in efficiency upgrades.
- Energy audits help SMEs identify cost-effective improvements, but non-compliance could result in penalties.

Renewable Energy Directive (RED III) (Revised in 2023)

The RED III is also a **directive** that sets EU' **renewable energy targets**, driving the integration of renewables across various sectors, including electricity, heating and cooling for buildings.

Key Implications

- The EU must source at least 42.5% of its total energy from renewable sources by 2030.
- Commercial buildings must contribute to an annual 1.1% increase in renewable energy use for heating and cooling from 2026 to 2030.
- Supports the implementation of solar, wind, biomass, and other renewable technologies in buildings.



 Encourages decentralised, local renewable energy systems and self-consumption models, such as solar panels combined with battery storage. This benefits SMEs by enabling energy independence, reducing energy bills, and improving resilience.

Why This Matters for SMEs

- Raises the pressure to increase the use of renewable energy in buildings.
- On-site renewable generation can protect businesses from fossil fuel price volatility and future regulatory risks.
- Encourages the country to provide financial support and technical assistance for the implementation of renewable energy sources.

Corporate Sustainability Reporting Directive (CSRD) (Established in 2022)

This **directive** expands **sustainability reporting requirements**, affecting many SMEs, particularly those listed on EU markets or in large supply chains.

In Ireland, listed SMEs are treated as large companies under company law, accelerating their timeline to start reporting from 2025, removing the opt-out option after 2028.

Non-listed SMEs and micro-enterprises are generally exempt from mandatory CSRD reporting but can opt to report voluntarily using simplified or voluntary standards especially developed for them. This could be useful as many SMEs not directly affected could face indirect pressure to report because large companies in their supply chains are required to report.

Key Implications

- Listed SMEs mut comply with detailed sustainability reports, covering the environmental, social, and governance (ESG) impacts of their business. The reports need to cover both impacts on company and company's impact on environment and society.
- SMEs supplying goods or services to large companies subject to CSRD will likely be asked to disclose sustainability data to enable their customers' reporting.

Why This Matters to SMEs

• Transparent reporting can improve access to financial incentives, improve confidence and market reputation.



• Drives SMEs to improve data management and integrate sustainability into building operations and investments.

Construction Products Regulation (CPR) (Revised in 2024)

This **directive** regulates the **promotion of construction products** in the EU, aiming to ensure they provide reliable information of environmental impact, and that they meet safety and performance standards.

Key Implications

- Sets stricter requirements on materials, restricting the content of hazardous substances, requiring higher recycled content, and ensuring stricter fire safety and structural integrity.
- Environmental Product Declarations (EPDs) will become mandatory for most construction materials.
- Digital Product Passports will also be required to track carbon footprint, recyclability and other material sourcing information.

Why This matters for SMEs

- Influences choice of sustainable materials in renovations and new construction.
- Incentivises the selection of CE-marked and EPD compliant materials.
- Enhances transparency and traceability of construction materials, aiding procurement and compliance.

In Summary: What are your Key Responsibilities

Instrument	Requirement	Building Owner	Building Occupier
EU Green	Compliance	Ensure energy performance	Adjust usage patterns and
Deal		compliance	implement efficiency measures
			(for example: LED lighting)
EPBD	EPCs	Obtain, display and ensure visibility	Request EPC from landlord
		of EPCs	before leasing. Monitor energy
			performance clauses in leases
	Building	Upgrade buildings to meet	Negotiate cost-sharing for
	renovation	minimum energy standards	upgrades via green leases

		Plan for mandatory renovations	
		(worst-performing 16% by 2030)	
	Fossil Fuel Phase-	Replace fossil fuel boilers with heat	Ensure heating systems comply
	Out	pumps/solar thermal by 2025– 2040 Sock grapts for renowables	Push for renewable energy clauses in leases
	Zero-Emission	Consider that all new commercial buildings must be zero-emission by 2030	May benefit from lower energy costs
	Solar Panels	Install solar panels on new builds >250m² by 2026; existing >400m² by 2027 if renovated	May share costs/benefits via green leases
	EV/Bike Infrastructure	Provide EV charging/bike parking in new/renovated buildings	Advocate for access to facilities
EED	Energy Audits	Audit building energy use (every 4 years if >10TJ)	Share energy data with landlords for audits
RED III	Renewable energy sources	Install renewable energy source (for example: solar panels, heat pumps)	Cooperate with landlord on system upgrades
CSRD	Sustainability Reporting	Scope and understand your reporting obligations	Track, disclose and report if required
		Track, disclose and report if required	Provide energy data if supplying to companies that are required to
		Disclose energy data to occupier for CSRD/ESG reporting (if tenant is in a large supply chain)	report
CPR	Sustainable Materials	Select CE-marked materials with EPDs/Product Passports for renovations/new builds	Request eco-friendly materials if leasing includes fit-out control



Acronyms

BER	Building Energy Rating
BREEAM	Building Research Establishment Environmental Assessment Methodology
CPR	Construction Products Regulation
CSRD	Corporate Sustainability Reporting Directive
DEC	Display Energy Certificate
EED	Energy Efficiency Directive
EPBD	Energy Performance of Buildings Directive
EPC	Energy Performance Certificate
ESG	Environmental, Social, and Governance
EU	European Union
EV	Electric Vehicle
HVAC	Heating, Ventilation, and Air Conditioning
IGBC	Irish Green Building Council
LEED	Leadership in Energy and Environmental Design
PV	Photovoltaic
RED	Renewable Energy Directive
SEAI	Sustainable Energy Authority of Ireland
SME	Small and Medium-sized Enterprises
SEAI	Sustainable Energy Authority of Ireland