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Vienna Shows the Way to Sustainable and Affordable Urban Housing

Affordable, quality housing represents one of the key pillars of effective urban policy. A comparison between Vienna and Prague reveals that a systematic approach can significantly impact the affordability, quality, sustainability, and social aspects of the urban environment.

Vienna stands out as one of Europe's leaders in urban and social housing. The city owns or manages approximately 50% of the housing stock through

municipal housing cooperatives and non-profit building associations (from the German „Gemeinnützige Bauvereinigungen“ — GBV). → 12

Survey Confirms Consumer Interest in Energy-Efficient Products

A consumer survey of more than 2,500 respondents across ten EU countries, including the Czech Republic, clearly confirmed strong demand for clearer, faster, and more reliable information on energy-intensive products. This information plays a key role in supporting Europe's transition towards sustainable and energy-efficient purchasing.

The survey revealed that although over 90% of consumers rely heavily on *online information* for purchasing decisions, the European EPREL database and QR codes, which are found on all energy labels, are underutilised.

When using online tools, EU consumers place the greatest emphasis on the completeness of product information and filters, followed by the ability to compare products, → 2



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Joint SECAP Action Plans – an Advantageous Solution for Small Municipalities

The Sustainable Energy and Climate Action Plan (SECAP) has become a key strategic tool for municipal energy management and policy. It follows on from the commitment made under the Covenant of Mayors, initiated by the European Commission. The joint SECAP offers smaller municipalities the opportunity to develop a shared plan and reduce the costs of its preparation.

SECAP is a comprehensive plan aimed at reducing emissions and increasing energy efficiency at the local level. It includes:

- a baseline emissions inventory (BEI),
- a systematic overview of adaptation and energy-saving measures,
- targets that municipalities want to achieve.

A joint SECAP offers groups of municipalities the opportunity to make a shared commitment or share measures. There are two main options: individual commitments for each municipality using shared measures, or a joint commitment for all municipalities. A joint commitment is particularly ideal for smaller municipalities that share similar challenges

and can spread the risks together. A joint SECAP also allows for more efficient resource allocation and administrative savings, such as when submitting documents. In practice, this speeds up project preparation and increases the chances of obtaining support.

The advantages of a joint SECAP lie in the synergies between municipalities. A joint commitment allows savings to be shared among members, costs to be optimised through economies of scale, and responsibility to be shared among several mayors. It also brings advantages in coordinating adaptation measures and facilitates communication with residents. On the other hand, a joint SECAP can also present challenges. For example, if the municipalities

in the group are too different, coordination can be more difficult. In addition, it is necessary to prepare a baseline emissions inventory for the entire area and break it down for each municipality, which requires high-quality data and good cooperation. Political will is also an important aspect, as some municipalities may be more willing to invest in savings than others. It is therefore essential to clearly define roles, timelines, and decision-making systems.

A joint SECAP is particularly suitable for associations of municipalities in a single region that share similar size, demographic characteristics and environmental problems. If there is good communication and trust between municipalities, the advantages can significantly outweigh the possible disadvantages. An example of a successful joint SECAP is the cooperation of the Voluntary Association of Municipalities Tolštejn (www.tolstejn.cz). The municipalities of Rybníště, Jiřetín pod Jedlovou, Doubice, Dolní Podluží, Horní Podluží, and the town of Chříbská have jointly decided to create a joint energy plan.

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Own Your SECAP

Survey Confirms Consumer...

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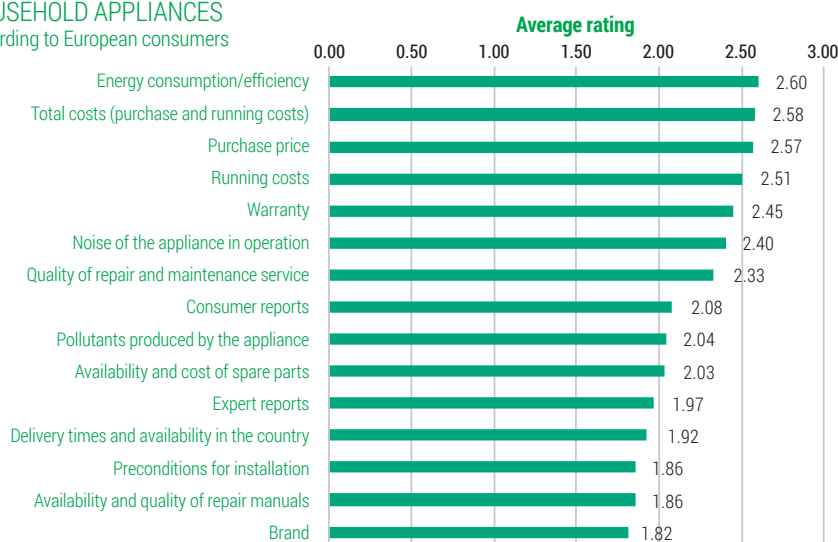


THE MOST IMPORTANT ASPECTS WHEN PURCHASING HOUSEHOLD APPLIANCES according to European consumers

and the option to sort them by price, various features, or the brand.

When purchasing products with energy labels, consumers most often use *product review and test platforms and price-comparison websites*. They use customer review platforms less often and energy and sustainability calculators the least.

Cost-related considerations dominate purchasing decisions, with consumers valuing the energy efficiency of products, the relative importance of which varies by product category:



→ **For household appliances and heating/air-conditioning systems**, the most influential criteria are energy consumption and efficiency, purchase price, total cost, and running costs.

→ **For consumer electronics**, the initial purchase price is decisive, while energy consumption and running costs are less important.

The warranty consistently ranks high across all product categories, reflecting consumer focus on product durability. Other factors of at least moderate importance include the quality of repair service, consumer and expert reviews, spare parts availability, pollutant emissions, brand, delivery times, manuals, and installation requirements. These findings will be used in the development of a new web application that will offer comprehensive product data, including energy consumption, energy efficiency, and technical parameters, in a user-friendly format. The aim of the EPREL Services project is to make full use of the data from the EPREL database and help consumers and professionals across Europe make more informed and sustainable decisions when purchasing appliances.

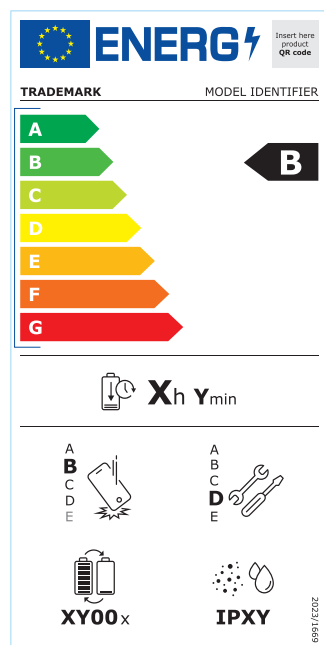
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New and Updated Energy Labels for Smartphones, Tablets, and Tumble Dryers

Energy labels are a transparent tool that helps consumers effectively compare products across categories and choose more energy-efficient models. These models not only reduce their energy bills, but also protect the natural environment and contribute to energy security.



Given dynamic market developments, new and updated energy labels are being introduced to ensure that consumers can make informed purchasing decisions.

New energy label for smartphones and slate tablets

All smartphones and slate tablets placed on the market from 20 June 2025 must be equipped with a completely new energy label. This provides buyers with information not only on energy efficiency, but also on several other product characteristics that are relevant to purchasing decisions. These include durability after a free fall, repairability, and protection against liquid ingress. The labels also show battery life per charge cycle and the battery's total lifespan.

The new mandatory product requirements also ensure that all models offered in the EU meet a defined level of quality and efficiency. Products failing to meet these requirements may no longer be sold on the EU market.

Key mandatory requirements include:

- Batteries must withstand at least 800 charge and discharge cycles while retaining at least 80% of their initial capacity.
- Suppliers must ensure the availability of critical spare parts within 5–10 working days for at least seven years after the end of sales of the product model on the EU market.
- Longer availability of operating-system upgrades is mandatory.
- Professional repairers must have access to any software or firmware necessary for updates or repairs.

According to a study prepared for the European Commission (*Ecodesign Impact Accounting Overview Report 2024*), these measures are expected to bring significant savings to consumers:

- By 2030, total energy savings in the EU will amount to **2.2 TWh per year**, representing a 31% reduction compared with a baseline scenario without these measures.
- Consumer savings in 2030 are projected to reach **€20 billion**, almost entirely due to longer product lifespans reducing the need for new purchases. Energy savings of €0.6 billion and additional repair and maintenance costs of €0.8 billion are negligible by comparison.

Updated energy labels and minimum energy-efficiency requirements for household tumble dryers

New tumble-dryer models placed on the market from July 2025 will feature updated energy labels

and comply with stricter minimum energy-efficiency requirements. The changes concern energy-efficiency requirements, condensation efficiency, low-energy modes, the availability of spare parts, the scope of information provided to consumers, and the clarity of information on energy labels.

Thanks to these stricter requirements, from July 2025 onwards, only heat-pump tumble-dryer models will be permitted on the EU market. This step will generate further significant energy-cost savings for consumers. Older, less efficient models that remain on sale will also have to display the new energy label and may continue to be sold without a time restriction.

Another key enhancement of consumer rights is the guaranteed availability of spare parts for at least ten years after the last unit of a given tumble-dryer model is placed on the market. These parts must be delivered within 15 working days of receiving an order.

It is estimated (*Ecodesign Impact Accounting Overview Report 2024*) that these measures relating to tumble dryers will have significant benefits:

- Switching to the most efficient tumble dryers can reduce electricity consumption by around 60%.
- The savings resulting from these measures could match Lithuania's total electricity consumption in 2030.

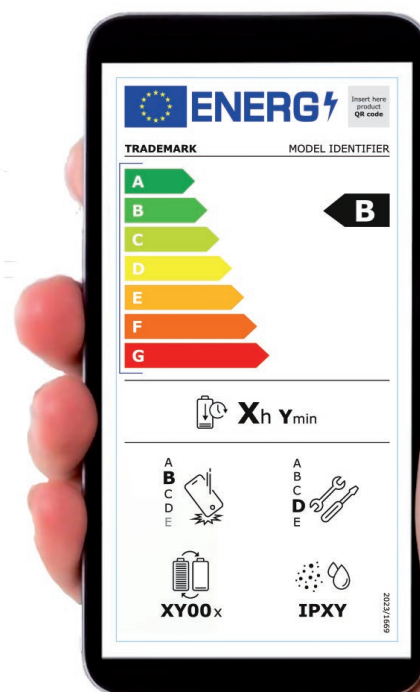
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COMPLIANCE SERVICES



More information
for retailers and manufacturers:
www.product-compliance-services.eu

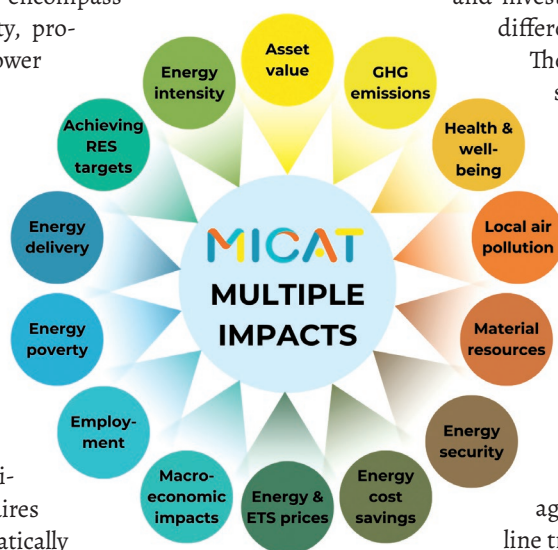


Training Offered to Assess the Multiple Impacts of Energy Efficiency Using the MICATool

The *MICATool* enables the assessment of multiple impacts of energy efficiency at European, national, and local levels, supporting informed decision-making by policymakers and practitioners. While the assessment and consideration of multiple impacts are required by European legislation under the “energy efficiency first” (EE1) principle, the *MICATool* offers decision-makers a practical way to evaluate different implementation scenarios.

In *MICATool*, multiple impacts are grouped into three categories: environmental, social, and economic. Environmental impacts cover reduced CO₂ emissions and lower air pollution; social impacts include mitigating energy poverty, improving indoor environmental quality, and health benefits; and economic impacts encompass increased energy security, property appreciation, and lower production costs.

Thanks to the *SEED MICAT* project, the *MICATool* framework is being extended to renewable energy sources, allowing demand-side and supply-side scenarios to be compared in line with the “energy efficiency first” principle of the Energy Efficiency Directive (EED). This requires Member States to systematically assess cost-effective demand-side measures, considering a life-cycle perspective, system and cost efficiency, security of supply, and broad societal benefits, including health and environmental aspects, in the transition to climate neutrality.



A new package of training materials is now available to simplify both initial use and advanced applications of the tool. The materials provide detailed, step-by-step guidance on scenario selection, data entry, and results interpretation, and they help ensure outputs are directly applicable to policy and investment assessments across different levels of government.

The package covers scenario settings, energy-savings input, advanced parameters, and result interpretation, including monetisation and cost-benefit analyses, all aligned with the EE1 principle.

For ministry representatives and other relevant national stakeholders — such as those from academia, agencies, or industry — online training seminars are organised by the Fraunhofer Institute in cooperation with SEVEN. Interested participants may contact us at the email address provided below.

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[micatool.eu/
seed-micat-project-en](http://micatool.eu/seed-micat-project-en)

New CETAC Centres Will Help Municipalities Transition to Clean Energy

Although local authorities directly produce only about 4.8% of total greenhouse-gas emissions within their territories, they play a crucial role in leading the transition to clean energy. They can engage citizens and businesses and effectively connect policy with practical solutions. The main challenge lies in translating decarbonisation objectives into inclusive, collaborative, and actionable local measures to ensure that no one is left behind in the transition to clean energy.

With climate targets on the horizon, emissions from residential and commercial buildings remain largely unaddressed. That is why cities and municipalities are taking targeted steps to engage residents, businesses, and schools in meaningful and lasting change. Effective public participation in building decarbonisation is essential

for meeting national climate commitments. The basis for this effort is clear, consistent communication – ranging from public workshops and school partnerships to direct outreach and social-media campaigns.

In recent months, five pilot municipalities in Central and Eastern Europe – located in the Czech Republic, Poland, Romania, Latvia and Lithuania – have begun establishing specialised Clean Energy Transition Assistance Centres (CETACs). These centres are not mere information desks, but act as vital bridges between local governments and communities. As part of the pilot project, the centres will implement and evaluate diverse activities designed to help municipalities engage citizens and local businesses, thereby strengthening efforts to reduce their carbon footprint.

The proposed services include:

→ Social services providing advice to vulnerable households on how to reduce their energy costs. → **5**



The First Test of Energy Flexibility in Czech Households Confirmed Its Potential

The development of renewable energy sources, especially solar and wind power plants, is a key tool of European climate policy and the commitments arising from the European Green Deal and the Fit for 55 package. However, these sources bring new challenges – their production is variable and more difficult to control. Therefore, to ensure stable operation of the electricity grid, there is a growing need to use new tools. The solution is energy flexibility on the demand side – the ability to adapt electricity consumption or production to signals from the grid. SEVEN has tested this approach in Czech households, and the results promise interesting opportunities.



bungees.eu



Energy flexibility is becoming an important element of modern energy systems and, at the same time, an opportunity for households and businesses. They can actively participate in the electricity market and gain the ability to adjust their electricity consumption or production in response to signals from the grid or the market. To verify its practical use in Czech households, SEVEN participated in the preparation and implementation of a pilot project on energy flexibility in the Czech Republic as part of the *BungEES* project. Similar pilot projects were carried out simultaneously in Spain and Portugal. The aim was to deploy Voltalis technology in selected households and verify the potential of flexible consumption management in the Czech environment.

The preparation involved careful selection of specific installations. Water heaters, heat pumps and electric accumulation stoves were included in the project within the Czech environment. The preparatory phase also included communication with the owners, which proved to be one of the most important parts of the project. A clear explanation of the principle of consumption management, the technical solution and the specific benefits is essential for the smooth functioning of the system. This communication also contributes to the willingness of owners to participate in the project. It was also necessary to verify the type of electrical installation, in particular

the confirmation of the TN-S earthing system (3 or 5 wires), which is essential for all new installations.

As part of the implementation, Voltalis's energy-flexibility solution was installed in five households. A team of French technicians, supervised by Czech electricians, installed communication and metering equipment, including a system for disconnecting appliances. The result is the ability to control and monitor consumption remotely via a mobile application. Users were thoroughly instructed on the capabilities and operation of the entire system.

The pilot project clearly confirmed that there is a real technical and practical potential for the use of energy flexibility in households within the Czech environment. The biggest limitations arise from the still prevalent TN-C type of installation, which is unsuitable for the installation of residual-current devices. These are mandatory for all new electrical installations. Experience from the pilot project shows that conscientious communication with owners is important for the future development of energy flexibility in the Czech Republic. In order to collect comprehensive information, we recommend installing temperature sensors, and possibly also humidity and CO₂ sensors, as an integral part of the solution used in future projects.

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- Housing departments assisting tenants with energy-saving measures.
- Strategic teams guiding citizens to subsidies and financing opportunities, while communication specialists raise awareness and improve access to energy-saving solutions.
- Comprehensive training for municipal employees to ensure the long-term sustainability of pilot projects and integrate CETAC services into day-to-day practice.

The goal is simple yet ambitious: to advance the decarbonisation of all sectors – from households and schools to businesses – by building a culture of cooperation. Practical services such as lists of certified energy experts, ambassador programmes, and public events are being developed with the active participation of those they are intended to serve. Removing barriers and providing targeted support

are essential steps towards successful decarbonisation at the local level.

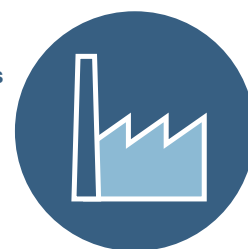
These initiatives do not stand alone – they are part of a growing movement that makes sustainability a shared mission. Behind this effort is the CETAC project, which helps municipalities transform policy into partnership and emissions into opportunities. The goal is to create a replicable model that cities throughout the European Union can adopt to implement their energy and climate plans successfully.

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Establishing Centers which will become an interface between

municipalities and citizens and businesses in the field of clean energy transition



The Russian War is the Main Obstacle to Investment in Energy Efficiency in Ukraine

An interview with Andriy Kyrchiv, Programme and Project Coordinator at the Energy Efficient Cities of Ukraine Association, opens up a concrete path from inherited inefficiency to practical steps in the field of energy efficiency and the use of renewable sources in Ukraine. The war has dramatically changed the priorities of municipalities, yet it is energy efficiency and modern energy-consumption management that determine their resilience and sustainability. You will also learn what kind of foreign aid is most effective.

Where do you see the biggest potential for energy savings in Ukrainian municipalities?

Ukrainian municipalities inherited an extremely inefficient residential housing stock from the Soviet era, when energy costs were state-regulated and maintained at artificially low levels for political reasons. Unfortunately, they have managed to refurbish only a small portion of this housing—insufficient for achieving a significant reduction in energy consumption.

Moreover, a number of other factors have hindered attempts to improve the overall situation, including an outdated and inefficient district (central) heating system, the lack of precise energy metering and effective municipal energy management, entrenched behavioural patterns, and the continued use of outdated construction materials and methods instead of adopting new standards for energy-neutral or energy-plus buildings, and so on.

Certainly, there are Ukrainian communities that have already focused on green development goals, joined major European initiatives and toolkits (such as the Covenant of Mayors and the European Energy Award), developed sustainable-development plans and green transition policies, and are implementing them step by step. While we don't have many such communities compared to the total number of approximately 1,400 (for example, there are 346 Covenant of Mayors Ukrainian signatories as of July 2025, some of which are either temporarily occupied or devastated by the aggressor, while others are on hold or suspended for not fulfilling commitments; only 12 Ukrainian communities implement the European Energy Award system today), these municipalities serve as leaders showing the right direction for others.

The main pillars of energy-saving potential in Ukrainian communities today and for the coming decades are: introducing contemporary municipal energy-management systems interconnected with automatic metering, data transfer, aggregation, and analysis software; comprehensive refurbishment of the old residential stock and construction

of new residential buildings in accordance with EU standards (and beyond); widespread use of renewable energy sources and their combinations for energy and heat supply (such as PV panels with heat pumps) in the public and residential sectors; and the creation of energy communities and „energy islands“ with independent energy production and storage capacities that will prevent energy shortages caused by warfare.

What are the key challenges and barriers to implementing energy efficiency measures for Ukrainian municipalities?

It is absolutely obvious that the Russian war against Ukraine is the main and most significant obstacle to the full-scale introduction of energy-efficient and energy-saving measures in Ukrainian communities. Any renovation or reconstruction of energy and heat production facilities is almost immediately followed by missile or bomb strikes, especially in areas close to active warfare zones.

For example, Ukraine has lost numerous PV installations and other renewable-energy equipment that have been either destroyed or stolen by the enemy. Another major problem is the lack of financing to install innovative energy-efficient equipment and/or local energy-generating facilities that could reduce overall community energy consumption, due to high investment risks during wartime and national priorities for financial spending under martial law that are obligatory for local authorities.

An additional challenge relates to the significant loss of qualified, trained local personnel who were involved in developing and implementing local and regional energy and climate policies but have now either been mobilised into the Ukrainian Armed Forces or have relocated or left the country.

Some obstacles connected to energy-related national legislation remain unresolved: despite the adoption of important national legal norms that align with EU requirements, many implementing regulations have not yet been developed, which blocks the practical implementation of these laws. Finally, the old „business as usual“ paradigm still prevails in some local communities and needs to change as soon as possible.

What should be done — in Ukraine and from abroad — to help Ukrainian municipalities implement more energy efficiency measures?

Ending the warfare or at least achieving a long-lasting ceasefire will provide good opportunities for positive changes in energy efficiency and climate solutions at all levels — local, regional, and national.

It should be emphasised that even under wartime conditions, we have examples of good practices, particularly in using renewable energy sources and their combinations to avoid blackouts in critical communal infrastructure (water and energy supply facilities, food production, hospitals, etc.).

However, a deep and thorough audit of the current situation in every community is needed before any reconstruction or installation of new facilities



Andriy Kyrchiv
Programme and Project Coordinator
at the Energy Efficient Cities of Ukraine
Association



Photo: Alex Usimau / jorvis.com

„It is absolutely obvious that the Russian war against Ukraine is the main and most significant obstacle to the full-scale introduction of energy-efficient and energy-saving measures in Ukrainian communities.“

(including assessment of damage, feasibility of improving or reconstructing existing facilities, and available resources for either renovation or new installations). In accordance with Ukrainian legislation, the adoption of energy-management systems in every community and the development of Municipal Energy Plans are obligatory. At the national level, it is important to develop an appropriate and comprehensive legal framework, as well as to stimulate and motivate local self-governments to approach these tasks practically rather than formally, developing realistic policies and plans with a clear vision of the steps to be undertaken and resources to be allocated for their implementation.

At the local and regional levels, the availability of trained and skilled personnel able to develop and implement these realistic energy and climate plans is crucial. Combined with thorough analysis of available and needed resources, plus external consultancy and financing, local authorities can proceed with precise and realistic planning of energy and climate-related measures and their subsequent implementation.

Potential help from foreign partners should focus on highly tailored consultancy that avoids repetitive general topics (particularly training local personnel on how to successfully apply for and work with European loans and credit programmes), opening more opportunities to work with grant, loan, and credit programmes for medium and small communities, sharing innovative good practices in energy

efficiency and climate policies with Ukrainian communities—particularly via wide ranging energy twinning and study-visit programmes, as well as through projects and programmes with practical implementation of successful models (such as the EU LIFE Programme and the former “Covenant of Mayors — Demonstration Projects” Programme). A recent survey among members of the “Energy Efficient Cities of Ukraine (EECU)”, which represents over 100 Ukrainian municipalities dedicated to improving energy efficiency, has revealed the priority placed on „hard-component“ projects. These are initiatives where communities receive both skills and knowledge plus practical implementation of real energy-efficiency measures financed completely or co-financed by foreign donors. The European Grouping of Territorial Cooperation (EGTC) mechanism could provide access to EU structural funds for Ukrainian communities and foster cooperation with EU partner municipalities in enhancing energy efficiency. It is important to refocus the EU Ukraine Facility instrument on allocating the vast majority of existing resources to real and valuable measures, not just to EU consultant pools.

But it is crucial first to have a peace process in place, followed by comprehensive and smart energy-efficient reconstruction.

Thank you very much!

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enefcities.org.ua/en

Innovative Energy Community Model reduces Communities' Heating Costs

In most European countries today, we face a fundamental challenge: how to ensure affordable, clean, and reliable heating in residential buildings in the future. Many households depend on gas boilers, solid-fuel boilers, or inefficient electric heating. These systems are not only costly but often also highly energy-inefficient, prone to breakdowns, and difficult to maintain. At the same time, the heating sector contributes significantly to both energy consumption and greenhouse-gas emissions. Modernising heating and cooling systems is costly and technically and organisationally complex, especially where there is no central heat distribution. This is where a new model comes into play: community sharing of heat from local sources.

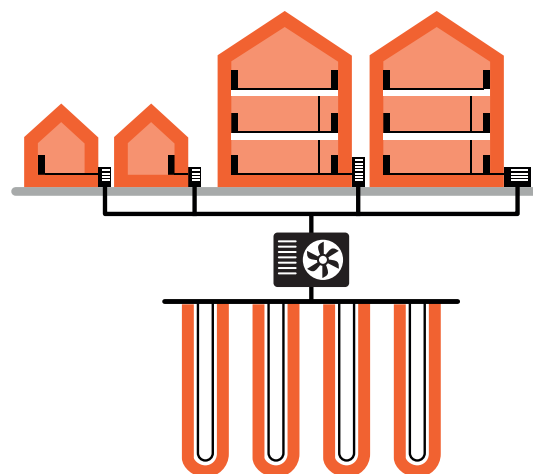


www.svn.cz/cs/heatcoop

HeatCOOP ●

In the community heat-sharing model, residents of a building or neighbourhood join forces to build a local heat source that serves the entire community. Instead of individual boilers in each flat or house, a shared heating system is created, which means lower operating costs, greater comfort, and a significant reduction in the complexity of operation and maintenance.

The HeatCOOP project, of which SEVEN is a project partner, takes the idea of heat sharing further and systematically develops the community-heating model. It is not just a technical solution but also a comprehensive integration of economic, organisational, legal, and financial aspects. The main goal is to create conditions in which an energy community can emerge and function effectively – so that people not only have the opportunity to



purchase heat together but also to participate in its management and the further development of the system. It is a way to democratise access to heat, strengthen local self-sufficiency, and reduce dependence on fossil fuels. The benefits are economic (lower heating costs), social (strengthening of neighbourly ties and trust) and environmental (lower emissions, higher efficiency). Pilot projects are already under way not only in the Czech Republic but also in Austria and Slovenia, showing that innovative community solutions represent a realistic and cost-effective path to sustainable development for towns and villages.

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Virtual Reality Delivers Safer, Faster, Cost-Effective Training for Energy-Efficient Construction

The construction industry is undergoing a fundamental transformation in response to ambitious climate and energy targets. Virtual reality is paving the way for safer, faster, and more cost-effective training for professionals who will build the energy-efficient buildings of the future.

Building requirements are evolving at an unprecedented pace. Demands for energy efficiency, sustainability, and technical quality in construction are growing. However, this transformation brings a significant challenge. Changing requirements are linked to the need for deeper expertise, new skills, and greater adaptability among workers in the construction sector. The entire industry faces the urgent challenge of not only upgrading the skills of existing workers but also attracting new entrants and systematically fostering their professional growth.

This is where innovative educational tools, particularly virtual reality (VR), can play a key role. VR is

driving a groundbreaking change in vocational education in the construction industry by enabling safe and repeated training of practical skills that would otherwise be costly, time-consuming, or difficult to implement. By simulating real-life situations, VR helps to deepen understanding of technical processes, boost participant engagement, and significantly accelerate the mastery of key skills. The result? Better-prepared professionals who can master the stringent demands of modern construction.

SEVEN is a partner in the DiVIRTUE project, which responds to the urgent need to rapidly improve the skills of construction workers in the context of ambitious European climate and energy targets. The main objective is to prepare the entire sector for high-quality renovations and the construction of zero-emission buildings — a task that requires a new generation of highly skilled professionals.

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Carbon

as a Measure of Success: Why Is the Construction Industry Changing?



The construction industry is one of the largest producers of greenhouse-gas emissions. Rising energy prices, legislative pressure and investor demands for sustainability have made carbon management a key competitive advantage. Today, carbon footprints already influence access to financing, success in public procurement and insurance conditions. A new emissions-management handbook has been developed in response to the need to prepare the construction sector for a future in which transparent emissions data determines competitiveness.

What Is a Carbon Footprint and Why Is It Important to Measure It?

A carbon footprint represents the total volume of greenhouse-gas emissions associated with all of a company's activities: from the production of building materials, through transport and construction itself, to the long-term operation and eventual demolition of buildings.

Precise calculations show how much greenhouse-gas emissions, expressed as CO₂ equivalents, are generated by energy consumption, the operation of construction machinery, or the transport of materials. Quantifying the carbon footprint provides a strategic basis for:

- Reducing operating costs through energy savings.
- Complying with legislative requirements and avoiding penalties.
- Gaining the trust of investors focused on ESG criteria.
- Achieving a competitive advantage when bidding for green contracts.
- Ensuring long-term business sustainability in a changing regulatory environment.

What Steps Does Carbon Management Involve?

Effective carbon management is a systematic, long-term process involving five key stages:

1. Calculating emissions using recognised international methodologies, such as the GHG Protocol or ISO 14064, to ensure data credibility and comparability.
2. Analysing the main sources of emissions and identifying the greatest opportunities for savings across company activities.
3. Setting specific, measurable targets for reducing emissions.
4. Implementing effective measures to achieve energy savings, selecting low-emission materials, optimising logistics and taking other practical steps.
5. Continuously monitoring, evaluating and adjusting the strategy based on results achieved.

The table provides a structured overview of measures for different stages of a construction project.



www.svn.cz/esg

ESG

STRUCTURED OVERVIEW OF MEASURES FOR DIFFERENT STAGES OF A CONSTRUCTION PROJECT:

PHASE	TYPE OF MEASURE	LEGAL MINIMUM	STANDARD	GOOD PRACTICE
Pre-investment phase	Strategic planning and analysis	Energy audit pursuant to Act No. 406/2000 Coll.; EIA for selected projects	Life cycle cost (LCC) analysis; climate verification of the investment	Quantification of the project's carbon footprint; internal carbon pricing; stakeholder engagement
Design	Building design and material selection	Building energy performance certificate	Design optimisation using LCA; selection of materials with a lower carbon footprint	Use of EPD materials; green public procurement; ESG conditions in tendering procedures
Implementation	Construction and construction management	Compliance with the requirements of the Energy Management Act; quality control of implementation	Efficient logistics; monitoring fuel and energy consumption; energy management according to ISO	Use of prefabricated components with lower emissions; use of renewable energy sources in construction; ISO 50001 system; digitalisation (BIM, monitoring)
Building operation	Energy and environmental operation	Energy consumption monitoring	Energy management of buildings; regular inspection of equipment	Active energy production from renewable energy sources; sharing of emissions data; participation in energy communities
Disposal and decommissioning	End-of-life and recycling	Waste management in accordance with the law	Sorting and recycling of building materials	Recycling of components; optimisation of demolition in terms of carbon footprint; use of long-life materials

What Role Does the Handbook Play in Implementing Carbon Management?

The handbook is being developed as a practical tool to help businesses navigate ESG requirements and to offer specific recommendations for small and large enterprises. It includes a methodology for measuring emissions throughout the entire life cycle of buildings, guidelines for setting realistic targets, and an overview of measures based on ambition level — from the legal minimum to best practice. Emphasis is placed on collaboration throughout the value chain and on using data to design and deliver sustainable projects.

Effective carbon footprint management is becoming essential for ensuring the long-term prosperity of companies in an evolving market environment.

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Initial Assessment Reveals Poor Smart Readiness of Buildings (SRI) in the Czech Republic



DISTRIBUTION OF SRI CLASSES

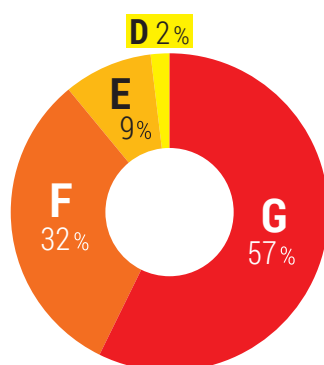


TABLE
OVERVIEW OF BUILDING
TYPES AND SRI SCORES
ACHIEVED

BUILDING TYPE	NUMBER OF BUILDINGS	SRI SCORE (%)	SRI rating (A-G)
Commercial buildings	11	26,9	F
Office buildings	5	24,9	F
Hotels and hostels	4	24,0	F
Apartment buildings	21	23,0	F
Municipal	3	22,9	F
Educational	21	22,8	F
Nursing homes	2	21,9	G
Historic	7	13,6	G
Family homes	83	18,9	G
Healthcare	5	18,1	G
Total	162	20,6	F

The Czech Republic has completed its first nationwide test of buildings' readiness for smart solutions. As part of the SRI-ENACT project, the first-ever SRI auditors were trained and assessed 162 buildings for their readiness for smart solutions (SRI). The results show that Czech buildings currently have only a limited level of digitalisation and smart technologies.

The Smart Readiness Indicator is based on the European Energy Performance of Buildings Directive (EPBD). This is a new system for assessing buildings in terms of digitalisation and smart technical building systems (TBS). Its aim is to reduce energy consumption, increase user comfort, and prepare buildings for integration into smart networks.

The assessment covers heating, hot water preparation, ventilation, and lighting systems in particular, but also modern features such as electric vehicle charging and energy consumption management. The key impact criteria include energy efficiency, comfort, maintenance, user information, and energy storage. The result of the assessment process is an overall SRI score, which expresses the extent to which a building is able to function „smartly“ – i.e. respond efficiently and flexibly both internally to user needs and externally to the surrounding energy infrastructure. The score is expressed as a percentage (0–100%) and a letter grade (A to G).

A total of 162 buildings were evaluated as part of the SRI-ENACT pilot testing project. Family houses and apartment buildings were the most represented. Buildings from other categories were also included in

requirements for the highest level of functionality.

Despite the overall low SRI score, the results indicate significant differences in the use of intelligent building services systems and smart controls in buildings. The highest average rating was recorded for commercial buildings (26.9%), while the lowest scores were achieved by historic buildings, where technical renovation is generally more difficult (average 13.6%). Family houses also tend to have low SRI ratings (average 18.9%, median 15.8%).

In the Czech context, buildings were often equipped with only a few basic technical domains (heating, hot water, lighting, and control), without the possibility of evaluating other areas. In particular, the evaluation of the dynamic envelope of the building and the charging of electric vehicles is exceptional in the Czech Republic. The production of electricity from photovoltaic systems was mentioned in the assessment, but often without local storage, which reduces the overall SRI score of the building.

An interesting observation is the low correlation between SRI and the energy performance class of buildings. Even relatively energy-efficient buildings from an EPC perspective can have a relatively low smart readiness rating.

Sixteen SRI auditors participated in the pilot assessments. These were usually energy experts who had been trained as part of the SRI-ENACT project. As part of the pilot assessment process, SRI auditors were also asked for feedback on the assessment process itself and the SRI indicator. Among the most frequent comments was the short time required for building assessment – an average of 90 minutes for a family house and just over three hours for other types of buildings. Energy experts often requested clarification of the catalogue of functions used to assess the SRI. The feedback also shows that the SRI methodology differs significantly from the calculation for the EPC, both in terms of complexity and assessment method, and therefore the two systems cannot be directly compared.

The assessment of buildings' smart readiness introduces a new classification of buildings, primarily from the perspective of energy flexibility and user-friendliness. According to the EPC, mandatory SRI assessment is expected from mid-2027 for large non-residential buildings with a combined heating, cooling, and ventilation power of over 290 kW. The pilot SRI assessment provided the first important experience with the new indicator and created the first trained SRI auditors.



The SRI-ENACT project also produced the first list of SRI auditors in the Czech Republic, which is available at www.svn.cz/sri.



the testing – from educational and commercial buildings to healthcare facilities, historic buildings, and municipal buildings. Table 1 shows the average rating of buildings by type.

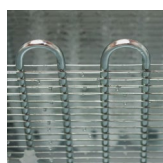
The results show a generally low SRI rating for buildings. The average rating achieved was 20.6% (median 17.9%). The highest class achieved was D, which was achieved by only three buildings. The highest rating was recorded for a family house: 61.8%. The generally low score is mainly due to the ambitious scale of the indicator, which allows for a large potential in the area of energy flexibility, as well as the generally high

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New Standards Harmonise Energy Savings Calculations Across the EU

The stricter targets of the revised Energy Efficiency Directive raise difficult questions: what energy savings count? How will the savings actually be calculated? And how can the exchange of experience across EU Member States help us achieve this? These are just some of the questions addressed by the *StreamSAVE+* project.



Refrigeration systems



Building Automation & Control Systems



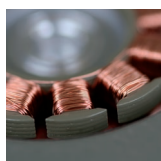
Electric Vehicles



Lighting Systems



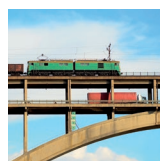
Heat recovery



Motor Replacement



Behavioural Changes



Modal Shift



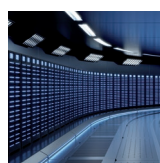
Small-scale renewable heating technologies



Energy poverty



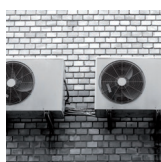
Deep renovation



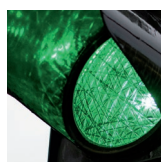
Data centers – IT equipment



Data centers – cooling



Heat recovery and ventilation



Public Traffic Management



SELECTED TOPICS FOR WHICH THE STREAMSAVE+ PROJECT IS DEVELOPING STANDARDISED METHODOLOGIES FOR CALCULATING ENERGY SAVINGS



The project website
StreamSAVE+
(streamsaveplus.eu)

In the current European context, energy efficiency targets are becoming increasingly important, particularly amid the crisis in the energy markets, the transition to a zero-emission economy, and strategies such as *REPowerEU*. Member States and regions face demands to achieve ever higher savings, and they need robust methodologies for calculating them and transparent reporting of policy impacts. At the same time, digital tools, reference value da-

tabases and bottom-up methodologies are developing rapidly, enabling better comparability between countries. This is where the opportunity for harmonisation of procedures arises.

StreamSAVE+ is a three-year European project funded by the LIFE programme and coordinated by SEVEN. It focuses on supporting Member States in accordance with Articles 5 and 8 of the new Energy Efficiency Directive (EED 2023/1791) by developing and implementing harmonised methods for calculating and verifying energy savings.

One of the central parts of our activities is the regular webinars, which bring together energy and technical experts, public sector representatives, policymakers, representatives of energy agencies and associations, and experts from the private sector. At these meetings, selected experts give presentations on key issues related to energy savings calculations. Thanks to their online format, the webinars have a wide reach.

During the first year of the project, a total of five meetings were held on the following topics: municipal energy savings monitoring systems, assessment of energy savings from building renovation programmes, savings potential in data centres, assessment of energy savings in water treatment systems, and a technology-focused versus a system-based approach to energy savings in businesses and industry.

The discussions during the webinars provide valuable insights. Some European countries are significantly ahead in certain areas and provide examples of best practice, which these meetings help to share.

The webinars not only disseminate best practices, but also highlight operational, legal and political barriers that continue to hinder the effective implementation of savings calculations. This national challenge also awaits the Czech Republic, which must prepare to report its energy savings under the EED.

The webinars will continue throughout the project and will resume in the autumn with topics on heat recovery from building ventilation and public transport management. The project website contains transcripts and presentations from previous webinars as well as all the latest information. You can also register for upcoming webinars there.

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Mobilisation of Private Capital for Faster Renovation of Public Buildings

Municipalities, regions, and other public building operators often face a paradox: they need to quickly reduce energy consumption and emissions, but their budgets and debt capacity are insufficient for capital-intensive renovations. The solution is to mobilise private capital through structured cooperation between public authorities and financial partners.



The LEVERAGE project paves the way for easier use of private sources to finance capital-intensive investments in energy efficiency and decarbonisation of public institutions' assets, with a focus on municipalities and regions. This addresses a fundamental problem faced by public authorities, which do not have sufficient budgets or the ability to borrow enough to make the large-scale investments required by Articles 5 and 6 of the Energy Efficiency Directive.

To achieve this objective, a mechanism called an accelerator will be developed, combining a metho-

dology for connecting partners with practical mentoring and targeted training. This approach brings together private financial partners and public authorities, helping them to understand each other's needs, while providing technical expertise and support in the early stages of project design to develop bankable projects focused on capital-intensive energy efficiency and decarbonisation measures.

Based on testing in a portfolio of pilot projects, a national accelerator tailored to local market and regulatory conditions will be created in each of the nine partner countries. In the Czech Republic, SEVEN, a partner in the project, will focus on the use of private financing for energy performance contracting (EPC) projects in combination with subsidies for comprehensive building renovations.

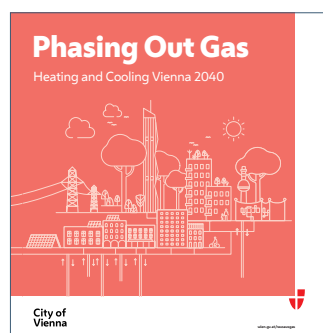
The use of private capital and structured cooperation between public authorities and financial institutions are essential for achieving energy-transition goals and accelerating investment in the renovation of public buildings.

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Vienna Shows the Way...

CONTINUED FROM PAGE 1



Phasing Out Gas –
Heating and Cooling
Vienna 2040
(PDF document)



For more information,
visit the HeatCOOP
project website

HeatCOOP

These associations are permitted to distribute only a very small portion of their profits, with the majority being reinvested into housing construction. The city invests around €500 million annually in construction and manages approximately 3.1 million m² of land designated for social housing. This system not only ensures stability but also allows for effective control over the housing market.

New projects exceeding 5,000 m² must provide at least two-thirds of apartments in the social housing category while achieving a very high standard of quality. The price, architectural excellence, environmental quality, and social composition are evaluated. Thanks to these parameters, rents in municipal apartments are up to 30% lower than market rates, ensuring high affordability and a stable social mix. Projects are thus being built at the level of entire neighbourhoods.

Vienna's approach extends beyond just the construction of apartments; the city comprehensively plans all aspects related to housing. A prime example is the ambitious strategy "Phasing Out Gas — Heating and Cooling Vienna 2040", which aims to phase out fossil fuels in heating and cooling gradually. This initiative builds upon the "Vienna Heating Plan 2040".

The aim of this initiative is to ensure that by 2040, all buildings in Vienna are heated and, where necessary, cooled using climate-neutral and renewable technologies. Currently, gas heating consti-

tutes nearly 90% of CO₂ emissions in the building sector. The plan entails expanding and densifying the existing district heating network from 1,300 km to 1,720 km and introducing hundreds of new local low-temperature networks. From an energy efficiency perspective, the cooperative concept of so-called cold networks is being developed, using heat pumps at the level of individual residential units or entire blocks of buildings.

Under the Vienna model, developers engage in the project only at the stage of competition between individual concepts. The city defines the parameters for each planned project during the zoning plan stage, specifying areas designated for social housing in future developments.

The Vienna model clearly demonstrates that affordable urban housing can be achieved through a combination of stable financing, effective regulation of developers, strategic land management, and consistent policy. In contrast, Prague currently focuses on individual projects and funding schemes, which slows the roll-out of affordable housing. Inspiration from Vienna could significantly enhance the effectiveness of Czech urban policy and improve the availability of quality housing for a wider range of residents.

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FROM THE CZECH REPUBLIC AND THE EU

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