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## What's Next for the Green Deal and European Climate Regulation?

According to Jaroslav Maroušek, Chairman of the Board at SEVEN, The Energy Efficiency Center, cancelling the Green Deal strategy is no longer a viable option. In an interview, he clarifies what can be expected from European regulation in the fight against climate change.

**A**verage global temperatures over the past 12 months have reached record highs for each individual month. Last year, the average annual global temperature reached nearly 1.5°C above pre-industrial levels, a threshold set by the Paris Agreement as having unacceptable consequences for the society. On the other hand, past efforts to reduce greenhouse gas emissions are proving effective, and according to a new BloombergNEF analysis, we are at a turning point where global greenhouse gas emissions are beginning to decline. The political arena has become heated, however, following the European Parliament elections with a debate

on the possible relaxation of regulatory measures stemming from the European Green Deal. Shouldn't we instead focus all our efforts on preventing further emissions?

This strategy was approved by all Member States in 2019, well before the outbreak of COVID-19 pandemic and before Russia invaded Ukraine. The Green Deal aims to achieve climate neutrality for EU countries by 2050. The EU's follow-up strategy paper „Fit for 55“ states that if we are to achieve carbon neutrality by 2050, we will have to reduce greenhouse emissions by 55% by 2030. The strategy paper then also expands on many of these measures in greater detail. These → **3**

## The National Plan for the Development of the Czech Construction Industry sets out priorities for its transformation

**T**he Czech construction industry is facing fundamental changes and challenges. The National Plan for the Development of the Czech Construction Industry seeks to respond to the current situation and set long-term priorities for the sector. The National Plan proposes specific measures aimed at improving staff capacity in the construction sector and meeting the requirements leading to systematic innovation and energy saving targets.

The Czech construction industry is facing several challenges at the same time. It suffers from a critical shortage of new housing construction, a slow pace of comprehensive renovations and insufficient implementation of national energy saving targets. Responsibility for construction, → **5**

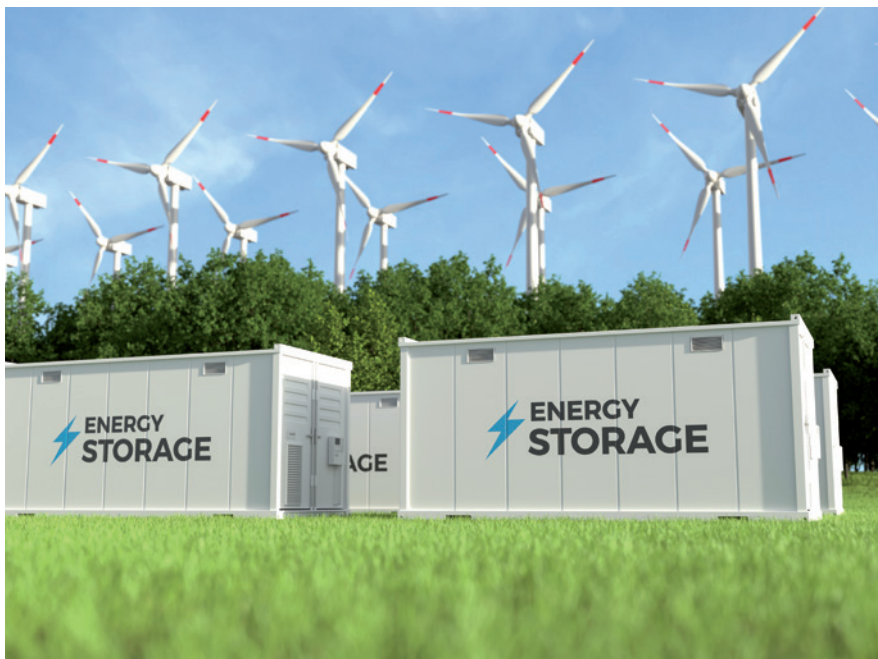
## Energy cooperatives as a key to decarbonising urban heat supply

**S**haring heating infrastructure on the basis of energy cooperatives can be a solution for decarbonising a significant part of residential buildings in cities. Heat supply accounts for a significant part of energy consumption and greenhouse gas emissions in cities. At the same time, many buildings are equipped with single-storey gas-fired boilers, which are unsustainable to operate in the longer term with the rising carbon price and the shift away from natural gas.

Energy communities, a newly enacted form of collective ownership and management of energy resources that brings together individuals, communities and businesses to achieve common goals of sharing renewable electricity, are beginning to gain traction in the country this year. This innovative approach involves the application of the sharing model to the heat sector, which includes not only generation and distribution, → **2**

# Smart energy services respond to the current market needs

**T**he European Union, including the Czech Republic, has set ambitious energy efficiency targets that require large-scale investments and the implementation of modern technologies. With increasing demands for efficient use of energy in buildings and reduction of greenhouse gas emissions, and with rising energy prices, the topic of energy efficient services (EES) is gaining importance. Indeed, their use can be one way to achieve these challenging goals.



One of the main benefits of flexibility in energy services is the ability to optimise energy consumption in real time, using modern technologies such as smart meters and energy management systems to monitor and manage energy consumption according to current needs and market prices. Another benefit is the increased ability to integrate renewable energy sources into existing systems. Renewable sources such as solar and wind are inherently variable and their performance depends on natural conditions.

The *BungEES* project focuses on developing a new business model for Smart Energy Efficiency Services (SEES) that aims to maintain the existing benefits of EES and extend it with modern approaches, especially much needed energy flexibility. This will ensure a greater adaptation of energy consumption to RES energy production, for example through the use of battery storage or load management systems. This will not only increase the share of renewables in the energy mix, but also contribute to greater stability and reliability of the energy grid. Pilot projects are currently underway in France and Spain and discussions will be held in the coming months to extend testing to the Czech Republic and Slovakia. The *BungEES* project will also prepare catalogues of non-energy services in the coming months, which will become part of the packages of the newly developed SEES business model.

EES tasks include, for example, optimising energy consumption, implementing energy saving measures, managing energy resources and providing technical support to achieve these goals. Energy service companies (ESCOs) offer solutions that may include energy audits, design and implementation of energy saving measures, monitoring and verification of results. Slowly but surely, the use and management of energy flexibility is also becoming an important part of energy services.

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## Energy cooperatives as a key...

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but also the implementation of technologies to improve the energy efficiency of buildings.

Building new shared heat management in apartment buildings is financially and organizationally demanding. A joint approach within an energy community offers the opportunity to overcome high transaction costs of building new technology in an existing development where each apartment operates its own gas boiler. Testing this approach is the aim of the HeatCOOP project aimed at creating energy cooperatives for decarbonising heat in urban neighbourhoods. In doing so, it builds on the Positive Energy Districts (PED) Transition concept. Testing in the Czech Republic, Austria and Slovenia will focus on smaller sites or groups of buildings.

Successful implementations of this model can inspire other cities seeking to decarbonise their energy systems. Energy cooperatives can provide a flexible and efficient solution that combines technical innovation with community participation and sustainability. One key opportunity is to increase the energy autonomy of local communities. By jointly owning and managing energy resources, communities can reduce their dependence on energy suppliers and increase their energy security. In addition, energy cooperatives can create new jobs and support the local economy through investments in renewable energy and energy efficiency.

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strategies provide the basis for the individual legislative acts that were subsequently adopted and which, unlike the strategy documents, impose obligations on Member States to achieve the long-term target.

Abolishing the Green Deal strategy is not a viable option from my point of view. Numerous follow-up directives have already been adopted and the Member States are gradually transposing them into their respective national legislation. However, unforeseen factors such as the Covid-19 pandemic and the war in Ukraine have impacted the implementation of this strategy, draining public budgets and the reserves of private companies, making key technologies and building materials more expensive. It is therefore appropriate to reconsider some of the measures and/or adapt them to these changes where appropriate.



### What can we expect from a possible update?

It cannot be ruled out that some of the emission reduction plans will be reassessed and perhaps even relaxed, but the fundamental direction will undoubtedly remain the same. Climate neutrality is the only long-term stable solution so far and it is also enshrined in the European legal framework on climate. So far, none of the relevant decision makers are considering its repeal. This means that if we slow down some of the intended steps, we must find alternative tools to achieve the objectives and, conversely, accelerate remaining measures or increase their impact. In this context, we particularly talk about applying the principle of 'energy efficiency first' more consistently. This is a principle that we at SEVEN have been striving to promote for decades. Since 2020, it has also been emphasised in the European Commission's strategy documents. This does not mean only going into greater depths of the principles contained in the Energy Efficiency Directive, but a widespread application of this strategy, including new approaches to project financing. This principle should permeate all investment strategies in the EU that may include an energy efficiency component.

### Why should we put energy efficiency first? Does this mean that we should prioritise investment into energy savings over renewables?

Increasing energy efficiency is an underestimated source of both emissions reduction and economic re-

silience. Despite admirable advances in technological development, we still fail to make the use of energy more efficient; most of the expensive energy we buy ends up lost in the processes without much use, in the form of waste heat. We encounter this in everyday activities, e.g. when driving a car. From the petrol we put into the car, only one-third is used to get the vehicle moving, often even less. The rest is heat transferred by the vehicle to its surroundings. We tend to waste heat in a similar way when we heat buildings - most of us live in buildings that consume twice or more the energy compared to the low-energy buildings we can build today with only a small increase in construction costs. And there are many more such examples.

Energy efficiency is not meant to compete with renewables, but to enable them to cover a larger percentage of consumption by gradually reducing the need for energy. The trivial notions of twentieth-century economic strategies, based on the assumption that GDP growth necessarily requires further growth in energy consumption, are fortunately obsolete.

### How is the principle of „energy efficiency first“ enshrined in EU legislation?

Within the „Fit for 55“ strategy, the Energy Efficiency Directive has also been updated and reflects now the principle of „energy efficiency first“. The energy savings that Member States are required to achieve will gradually increase. In the updated directive, this minimum savings target is set at 0.8% per annum of total final energy consumption as of 2021, gradually increasing over the years to 1.5% per annum in 2026. After 2027, Member States will be required to achieve annual savings of 1.9%. This makes the energy savings target roughly twice as high in this decade, compared to the previous period.

### What should we focus on when implementing the Green Deal strategy in the Czech Republic?

Given that the Czech Republic is one of the countries that failed to meet energy savings targets even in the previous period, meeting the newly set targets in this area will require a high level of attention. In the long term, energy efficiency is the most effective tool not only for reducing emissions, but it will also help us cope with higher energy prices and their fluctuations.

There is room for savings almost everywhere. The only problem is that, unlike in energy production where two or four enabling technologies can help, savings are extremely diversified and their application requires the deployment of hundreds of new technologies and technological processes, which cannot be introduced overnight. Long-term, systematic work is needed, but it will undoubtedly lead to the goal. I believe that even the News at SEVEN will also help in this endeavour by disseminating information and valuable experiences in the field of energy efficiency improvement, including concrete examples of implementation.

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# Virtual reality as a tool for education in the construction industry

**T**he renovation wave and the energy targets for 2030 require a major capacity building in the implementation of energy saving measures and the installation of renewable energy sources. To date, classroom training of new and existing staff has met with low interest, particularly from the skilled trades. On the other hand, it has often been a problem to synchronise on-site training with the current building schedule. The use of virtual reality offers itself as an attractive training tool that could remove these and other barriers.

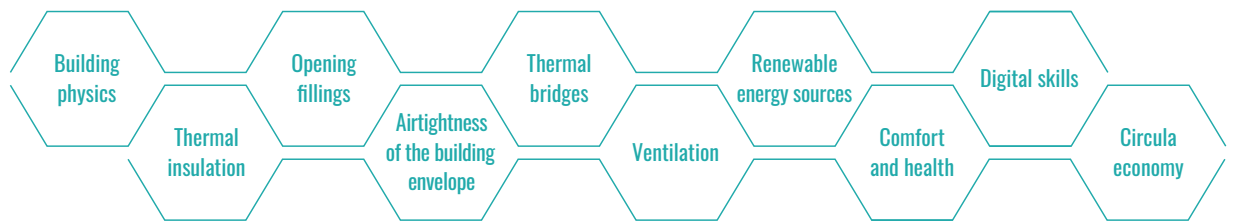
The main objective of the activities, which will take place over the next three years starting in August 2024, is to create new curricula focused on the building envelope and energy sources in the renovation and construction of new buildings in high energy

standards. The main beneficiaries of the training programmes will be universities and secondary schools and training centres.

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USING VIRTUAL REALITY, THESE TOPICS TO BE COVERED



## Amendments to the legislation on lighting

**T**he Czech legislation regulating the minimum quality of daylight and artificial lighting has been updated and partially tightened. This fact plays an important role particularly when modernizing and approving workplaces and school premises.

There are two key pieces of legislation in the Czech Republic that deal with lighting and set technical standards. The first one is Government Regulation No. 361/2007 Coll., which focuses on occupational health and safety conditions and defines the minimum hygiene standards for workplaces. The second regulation is the Decree No. 160/2024 Coll. (formerly No. 410/2005 Coll.), which defines the hygiene requirements for space and premises where children and youth are being taught and educated.

Both pieces of legislation that regulate the mandatory minimum lighting standards have been partially updated. The requirements for the quality of daylighting have been modified in both, and the terminology was harmonised with the new European standard EN 17037. The tightening also applies to artificial lighting, now referred to as electric lighting. The minimum required illumination uniformity has been increased to 0.4 (unless the standard requires more) and the requirement to limit maximum glare has been emphasised. Both regulations now require lighting design to include also a maintenance plan and determination of a maintenance factor.

Hygiene standards for workplaces have been partially tightened, with a minimum of 300 lx now



required in most cases. The aim was also to tighten up the standards for permanent workplaces where daylighting values cannot be met.

The new decree concerning educational premises now requires adequate replacement of linear fluorescent lamps in response to the end of light sources with mercury content on the EU market and to ensure sufficient quality of the replacement LED tubes. These tubes must have an adequate luminous flux or, after replacement, lighting measurements must be taken to demonstrate compliance with the standard requirements. When replacing the lighting, it is also necessary to comply with Czech technical standards. The minimum illuminance standard values have increased to 300 lx, while in classrooms, the new standard sets a minimum value of 500 lx compared to the previous 300 lx.

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## The National Plan for...

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National Development Plan for the Czech Construction Industry and other outputs of the DoubleDecker project

energy and energy-efficient building is fragmented between several ministries within the Czech Government. There is thus no single administrative institution responsible for the national development of the construction sector and its long-term strategic support.

At the same time, interest in construction courses at secondary schools and universities is declining, with the number of graduates covering only half of the required workforce. Labour productivity is stagnating and the construction sector is lagging behind in the introduction of new technologies and digitalisation. The traditional education system is

managed in isolation from construction practice and often lags behind the needs of the sector. The issue of lifelong learning is regulated by law only for some professions, while it is not systematically addressed in the crafts.

The *DoubleDecker* project therefore focused on developing a *National Development Plan for the Czech Construction Industry* (Roadmap), with the aim to identify gaps, accelerate changes and help to set a strategic vision for the entire sector. The Roadmap was developed as part of the EU's BUILD UP Skills initiative, which aims to increase the number of skilled workers able to upgrade existing energy-intensive buildings to energy-efficient buildings and build new buildings with near-zero energy consumption.

The National Plan for the Development of the Czech Construction Industry emerged on the basis of consultations between stakeholders from several different sectors who will play a key role in its subsequent implementation. The National Plan contains ten key measures for the transformation of the Czech construction sector: a strategy for the sustainability of vocational training, effective use of funds, a strategy for the development of the construction sector, a lifelong learning policy, effective public procurement, research support, involvement of women in the sector, support to underperforming regions, changing the face of the construction sector and data collection in education.

These measures aim to respond to the current negative trends in the construction industry and strengthen the sector. Already 36 organizations in the Czech Republic have expressed their support for the National Plan and its measures. The implementation of the individual measures is now underway with the aim to accelerate and streamline construction and renovation, comply with national and international commitments in terms of green building, energy savings, climate protection and decarbonisation of the economy.

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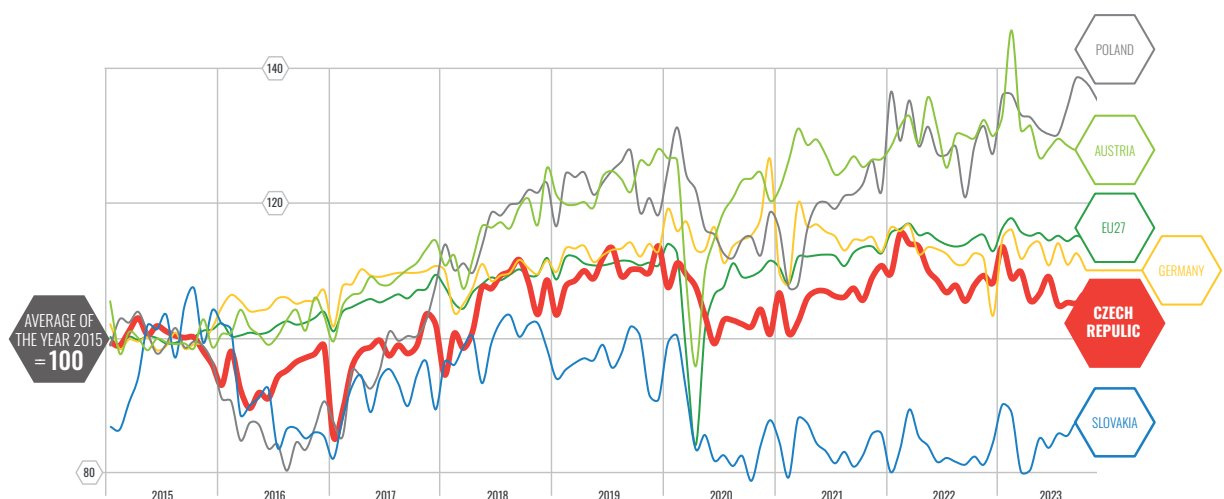
## MEASURES OF THE NATIONAL PLAN FOR THE DEVELOPMENT OF THE CZECH CONSTRUCTION INDUSTRY.



## CZECH CONSTRUCTION PRODUCTION INDEX IS SIGNIFICANTLY BELOW THE EU AVERAGE

(base indices, seasonally adjusted)

Source: Eurostat, ČSÚ





Source: State Emergency Service of Ukraine / dsn.gov.ua

## Ukraine's Energy Supply Crisis: Urgent Call for Enhanced Efficiency

The majority of Ukraine's electricity and heat production facilities have been attacked and destroyed by the Russian army over the past several months. As a result, blackouts lasting several hours a day are common across the country, and the situation is likely to worsen as winter approaches. As the reality confirms CBS News reporter Charlie D'Agata's assertion that "What Russia cannot capture, it is seeking to destroy," improving energy efficiency is one of the key measures needed to help Ukraine endure the harsh winter ahead and build resilience for the future.

Ukraine has transitioned into a net importer of electricity. Despite ongoing efforts to rebuild energy production and distribution facilities, the pace may not be swift enough to ensure steady and lasting supply of electricity and heat to Ukrainian households and services.

The invading Russian army has also damaged or destroyed around 210 thousand buildings, including 400 cultural sites, along with over 900 schools, hospitals, and churches in Ukraine. These sites fall under the protection of the Geneva Conventions.

Even before the full-scale invasion in 2022, energy efficiency was one of the key instruments in bolstering the Ukrainian economy. Now, it has evolved into a crucial component of the reconstruction efforts in the country, aiming to establish a sustainable and climate-friendly approach to meeting energy demands.

SEVEN is actively engaged in several initiatives to cooperate with Ukrainian counterparts, focusing on exchanging experiences and organising energy efficiency projects, mainly at the municipal level.

This autumn, the European LIFE project "CE-TAC" will start, involving the Association of Energy

Efficient Cities of Ukraine in activities related to developing and implementing municipal climate and energy plans. This includes communicating recommended measures to relevant local stakeholders, ranging from households to businesses and services.

As part of the "Own Your SECAP" project, that assists municipalities across the EU in effectively implementing their Sustainable Energy and Climate Action Plans, SEVEN has initiated collaborations with two Ukrainian municipalities, which involve assisting them in selecting and implementing measures identified in their municipal energy and climate plans. Furthermore, a Cooperation Agreement has been signed with Uzhhorod's Development Agency to facilitate the exchange of ideas, experiences, and expertise on energy efficiency and related activities.

Additionally, bolstering energy efficiency in Europe will be essential in further reducing Russian fuel imports, which are providing Russia with finances for the war and causing further damage to the Ukrainian energy infrastructure. Despite sanctions and endeavours to find new suppliers, Russia continues to generate substantial revenue by exporting energy to the EU. For example, only in April 2024, the EU accounted for EUR 1.9 billion of Russia's total fossil fuel export earnings.

It is evident that significant efforts are required to prevent further damage to the Ukrainian energy systems and to facilitate their restoration. Energy efficiency stands out as a key focus area, alongside measures such as air defence support, sanctions on the use of Russian fuels and other commodities, and the development of renewable and decentralised energy supply facilities.

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## A successful simulation will facilitate the supply of biomethane to the distribution network

**B**io gas produced from organic waste could be converted into biomethane without major technical problems and could be supplied to the existing gas distribution network in the Czech Republic. Such use of biomethane will reduce greenhouse gas emissions and provide part of alternative energy sources in the energy mix.



Since the beginning of the Russian aggression in Ukraine, we have been trying to reduce our dependence on natural gas in various ways. One of these is increased sustainable biomethane production, which contributes to greater self-sufficiency and security of gas supply through domestic production. The 2023 *Update of the Czech Republic's National Energy and Climate Plan* supports this technology and foresees biomethane production of almost 500 million m<sup>3</sup> in 2030.

To succeed in this endeavour, we would have to be able to connect the biomethane stations to the existing gas grid without any further technological modifications and additional investments into the grid. The SmartInject project was designed to simulate and test the possibility to deliver the biomethane produced by treating the Bubeneč Central Wastewater Treatment Plant sludge biogas into the Prague distribution network. To minimise the costs and to reduce the environmental impacts, the test omitted in part a process through which the biomethane combustion heat is increased to the level

of natural gas, usually by adding a more energetically valuable gas (typically propane) – a step that is associated with a significant carbon footprint.

Using a software model of the gas distribution grid, the project tested various operational scenarios of connecting the predefined biomethane. The model was subsequently calibrated using the real flow measurements from the grid. The results showed good applicability of the software tool and the final findings could be generalised, and thus become the basis of a normative document for the gas industry, allowing the simulation methodology to be practically applied at any other point in the gas network.

The SmartInject project was co-funded by the Théta programme of the Technology Agency of the Czech Republic (TAČR) and implemented by a consortium of SEVEN, Pražská Plynárenská Distribuce, SIMONE Research Group and the Czech Gas Association.

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*The 2023 Update of the Czech Republic's National Energy and Climate Plan*

# Energy efficiency requirements set forth by the new European directives



The turn of 2023 and 2024 brought significant news in Europe's fight for climate neutrality. Following the Green Deal for Europe, the „Fit for 55“ package, the Renovation Wave strategy and ambitious new targets, key European directives on reducing greenhouse gas emissions, increasing energy efficiency and increasing the use of renewables have been revised. A revised Energy Efficiency Directive (EED III) was published in September 2023 and a new Energy Performance of Buildings Directive (EPBD IV) was published in April 2024. Last year, the amendment of the Renewable Energy Directive (RED III) also added to these changes, but this article expands only on energy efficiency legislation.

*The Energy Efficiency Directive (EED III)* has increased the energy saving targets for 2030, which should lead to climate change mitigation and achieve the goal of decarbonising the economy by 2050. The Directive now requires the application of the “energy efficiency first” principle, so that only the energy actually needed is produced, investments in unprofitable assets are avoided and energy demand is reduced and managed in a cost-effective way.

The Directive further expands the requirements for the public sector to lead by example in energy efficiency. It requires *a reduction of 1.9% per year in the final energy consumption of all public bodies combined, extends the obligation to renovate 3% of the total floor area of buildings per year to all levels of public administration*, and takes greater account of sustainability aspects in public procurement and the award of concessions.

essential requirement is that the *zero-emission building must not generate any carbon emissions from fossil fuels on-site and that the total annual primary energy consumption must be fully covered annually by energy from renewable sources*, from carbon-free sources or from an efficient district heating and cooling system. A zero-emission building should also have the capacity for energy flexibility.

At the same time, Member States should ensure the calculation of the life-cycle Global Warming Potential (GWP) for all new buildings with a useful floor area above 1000 m<sup>2</sup> from 2028 (with no limit for all from 2030). GWP can be simplistically understood as the calculated carbon footprint of a building over its construction, operation and end-of-life.

Member States must gradually introduce national specific *minimum energy performance standards for non-residential buildings*, leading to the renovation of at least 16% of the most energy-intensive buildings by 2030 and up to 26% of the most energy-intensive buildings by 2033. For residential buildings, *the average primary energy consumption of the entire housing stock must be reduced by 16% by 2030 and by 20–22% by 2035* (compared to 2020). In doing so, Member States will put in place technical assistance and financial support measures, focusing on vulnerable households.

The directive also promotes greater use of solar energy in buildings, with the gradual mandatory installation of solar systems on selected existing buildings, and eventually also on new buildings. The Directive introduces building renovation passports (optional for now), a digital building diary and a national database on the energy performance of buildings. The Directive also addresses monitoring and automated control systems, requirements to ensure optimal indoor environmental quality and infrastructure for sustainable mobility, increasing the number of charging stations, preparation for electromobility and bicycle parking.

The changes described above pose a major challenge for the economies of EU Member States and also in terms of ensuring sufficient synergies at all levels of government and coordination with private actors. In addition to the availability of investment funds, measures must be backed by sufficient staff capacity in both the professional and public spheres.

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While the EED defines targets at a more general level, *the Energy Performance of Buildings Directive (EPBD) IV* already sets out more specific requirements for existing and new buildings. The primary objective of this Directive is to minimise the production of greenhouse gases and to achieve energy self-sufficiency in buildings. In order to meet these objectives, the Directive introduces a new energy standard called zero-emission buildings. In terms of energy consumption, this standard is to be only about 10 % more stringent than the current minimum requirements under Decree No 264/2020 Coll. on the Energy Performance of Buildings, but the



The Energy Efficiency Directive (EED III)



The Energy Performance of Buildings Directive (EPBD) IV



# Standardised approaches to reporting energy savings will support the achievement of mandatory savings

The Czech Republic, like many other EU Member States, does not meet the ambitious mandatory energy savings requirements set by the Energy Efficiency Directive. One of the key tools to help EU Member States in their efforts to achieve these targets is standardised approaches to reporting energy savings.



streamSAVE project

The Czech Republic does not comply with the mandatory energy savings requirements set out in Article 8 (formerly Article 7) of Directive 2023/1791 of the European Parliament and of the Council on energy efficiency (EED). There are several reasons for this: delays in the preparation of subsidy titles and financial instruments, lower interest in support programmes compared to the plan, increasing specific costs of energy savings, or a limited portfolio of measures to fulfill national commitments. In addition, the new version of the Energy Efficiency Directive, adopted in 2023, which significantly increases the targets and obligations for individual Member States, will make meeting these targets even more difficult. Among other things, it extends the commitments from central government to the whole public sector, thus applying the principle of „leading by example“.

Standardised approaches to reporting energy savings should help the Czech Republic achieve its energy efficiency targets. These approaches contribute to the transparency of reported energy savings while expanding the portfolio of possible energy saving measures. They allow Member States to draw inspiration from each other, potentially contributing to an increase in the savings achieved on their territory.

The streamSAVE+ project, launched in July 2024, aims to support member countries in achieving am-



- bitious energy savings through several key activities:
- Further development of a knowledge base of energy savings calculations to serve individual member countries.
  - Facilitating dialogue and exchange of experience between Member States, in particular at the level of individual measures or technologies. This dialogue will not only cover buildings but also transport savings and will take the form of dozens of thematic webinars. In the previous project, 28 countries participated in this exchange.
  - Over the next three years, an analytical package will be developed to help identify future trends in energy savings based on the defined policies of the Member States.

The following countries will be involved through their expert organizations, national agencies and ministries: the Czech Republic, Austria, Belgium, Bulgaria, Greece, Croatia, Lithuania, Portugal and Slovenia. Spain, Finland, France, Estonia, Romania and Slovakia have expressed their interest to be involved externally. The impact of the project activities, coordinated by SEVEN, will be to support Member States in meeting the challenging targets set by the Energy Efficiency Directive.

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## 2020 ENERGY SAVINGS TARGETS UNDER EED ARTICLE 7 NOT MET

CZECH REPUBLIC TARGETS AND COMMITMENTS BY 2020		
ART. 3 (OPTIONAL TARGET)	ART. 5 (BINDING TARGET)	ART. 7 (BINDING TARGET)
Final energy consumption: 1,060 PJ Primary energy consumption: 1,855 PJ	Final energy savings: 98.7 TJ	Annual energy savings: 51.1 PJ Cumulative energy savings: 204.4 PJ
FINAL ASSESSMENT OF THE PERFORMANCE		
MEETING THE OBJECTIVES AND COMMITMENTS OF THE CZECH REPUBLIC OVER THE PERIOD 2014–2020		
Final energy consumption: 1,025 PJ <b>103% Achieved</b>	Final energy savings: 98.7 TJ <b>100% Achieved</b>	Annual energy savings: 48.5 PJ <b>95% Not achieved</b>
Primary energy consumption: 1,568.9 PJ <b>115.4% Achieved</b>		Cumulative energy savings: 144.8 PJ <b>71% Not achieved</b>

Source: Report no. 10 on Progress Achieved towards National Energy Efficiency Targets in the Czech Republic (Ministry of Industry and Trade 2022)

## 2030 CUMULATIVE ENERGY SAVINGS TARGET UNDER ARTICLE 7 EED NOT MET IN 2023

CZECH REPUBLIC TARGETS AND COMMITMENTS BY 2030		
ART. 3 (OPTIONAL TARGET)	ART. 5 (BINDING TARGET)	ART. 7 (BINDING TARGET)
Final energy consumption: 990 PJ Primary energy consumption: 1,735 PJ	Annual energy savings: 12.4 TJ	Annual energy savings: 84 PJ Cumulative energy savings: 462 PJ
ASSESSMENT OF CZECH REPUBLIC TARGETS AND COMMITMENTS FOR 2023		
Final energy consumption 1,048 PJ	Energy savings: 23 TJ	Annual energy savings: 15.2 PJ <b>Achieved</b>
Primary energy consumption: 1,619 PJ		Cumulative energy savings: 39.9 PJ <b>Not achieved</b>

Source: Report no. 12 Progress Achieved towards National Energy Efficiency Targets in the Czech Republic (Ministry of Industry and Trade 2023)

Note: The table on the right does not take into account the increased requirements of new directives or the energy savings deficit from previous periods. As of 2024, higher targets will apply.

# Take advantage of the free assessment and prepare for the mandatory SRI for large buildings



Newer buildings today are full of information technology, networks and systems to accommodate building operations. These serve primarily to improve energy efficiency, overall performance and comfort for building users, but also make them easier to manage. A new Smart Readiness Indicator (SRI) has been introduced to measure the ability of buildings to use these modern management tools. It is expected to raise awareness among building owners and occupants of the benefits and savings from building automation.



uation process results in an overall SRI score that represents a measure of the building's ability and capability to work smarter inside and out.

The Smart Building Readiness Indicator is currently enshrined in European law as an optional system. The SRI has been tested in pilot projects in several EU countries, including the Czech Republic, and several projects are currently underway to train, test and develop assessment tools. One of these projects is SRI-ENACT, of which the national partner is SEVEN, The Energy Efficiency Center, z.ú.

As part of the revision of the European Energy Performance of Buildings Directive (EPBD IV), Member States were required to *introduce mandatory SRI assessments for larger non-residential buildings with a combined capacity of heating, air conditioning and other systems above 290 kW*. The obligation should come into force from mid-2027.

The SRI indicator represents a comprehensive building assessment that evaluates each technical area against impact criteria. The main technical areas include heating, hot water, ventilation, lighting, but also electric vehicle charging, building envelope and energy management. The key impact criteria are mainly energy efficiency, comfort, maintenance, user information and energy storage. The eval-

As part of the SRI-ENACT project, you can get a free SRI assessment of your buildings as part of a pilot evaluation, as well as free training for energy specialists. More information can be found at [www.svn.cz/sri](http://www.svn.cz/sri).

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## One-stop shops will advise citizens and businesses on how to save energy



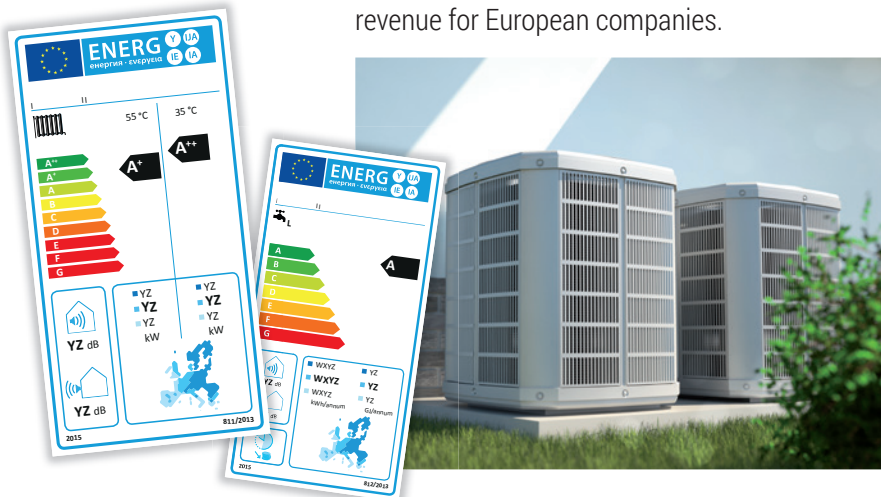
In the coming years, new one-stop shops will be set up in all EU countries to provide technical, administrative and financial advice and assistance on energy efficiency and energy performance in buildings. They will thus contribute to the implementation of energy and climate plans.

The creation of one-stop shops is required under two European legislative arrangements. The first is the Energy Efficiency Directive 2023/1791 (EED III), Article 22, which defines them at a general policy level, and the second is the Energy Performance of Buildings Directive 2024/1275 (EPBD IV), Article 18. According to the EPBD IV, these will be technical assistance sites focusing on the energy performance of buildings and all aspects related to this topic. The target groups will be individual households, housing associations, housing cooperatives, management companies, financial and economic operators including SMEs. The obligation to set up one-stop shops will apply to each compact region and to localities with more than 80,000 inhabitants. A specific focus is placed on vulnerable households that may be particularly vulnerable to high energy prices.

In the Czech Republic, we can expect to see the establishment of one-stop shops in larger → 11

# New Energy Label Requirements Coming for the EU Market

The EU ecodesign and labelling legislation is a key element of the EU policy aimed at protecting the climate and at the same time assisting consumers in saving on their energy bills. According to the European Commission, the EU energy label and ecodesign legislation has been estimated to bring energy savings of approximately 230 million tonnes of oil equivalent by 2030. For consumers, this means an average saving of up to €285 per year on their household energy bills. Moreover, energy efficiency measures are expected to generate an additional €66 billion in revenue for European companies.



The EU energy label is a true symbol of a successful energy efficiency policy. More than 90% of Europeans report having encountered it, with around 80% confirming that it influences their purchasing decisions. While the energy label is a well-known tool that informs consumers about the energy efficiency parameters of the product they are considering to purchase, the ecodesign legislation sets basic standards and requirements related to negative environmental impact throughout the product's lifecycle. Examples include the minimum required energy efficiency or in the future also the minimum quantities of recycled material to be used in produc-

tion. Products failing to meet these requirements are prohibited from entering the EU market.

However, the evolving market necessitates a revision of the current legislation in order to safeguard that the energy labels and ecodesign requirements, particularly the crucial indicator of energy efficiency class, accurately reflect ongoing market developments.

The EU is therefore currently developing new legislation to update minimum efficiency requirements and energy labels for several product categories, as well as to introduce fresh ecodesign requirements and energy labels for new product types, which will include solar panels, heat pumps, tablets and mobile phones, etc. Currently, over 30 product categories, spanning from household to industrial applications, are already covered by energy label, ecodesign, or both legislations.

The ComplianceServices project, financed by the EU programme LIFE, is therefore aiming to assist professional stakeholders, such as the suppliers, retailers, installers, procurers, etc. with their upcoming duties and requirements. Follow [www.product-compliance-services.eu](http://www.product-compliance-services.eu) for more updates and news for suppliers, retailers, installers and all other interested professionals!

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[www.product-compliance-services.eu](http://www.product-compliance-services.eu)

centres that can link their operation to local energy planning, efforts to improve local pollutant emissions and help their citizens cope with rising energy prices. Municipalities and cities are developing energy plans as part of their local energy transformation efforts. Typically, these are Sustainable Energy and Climate Action Plans (SECAPs), where they commit to energy savings and greenhouse gas reductions within the city limits. Resident engagement and concrete savings in the residential sector are absolutely key to meeting these commitments, which is why many cities are already setting up contact points in advance.

The one-stop shops will mainly provide assistance with home renovation, specifically with the design and processing of applications for subsidies for energy saving measures and the installation of independent energy sources such as photovoltaic panels. Among the energy saving measures, they will

focus in particular on the insulation of the envelope and roof of the house, the replacement of windows and the regulation of the heating system. Vulnerable households will be given access to basic information and assistance in choosing energy-saving appliances and lighting, selecting an appropriate energy supplier and tips on how to resist 'energy scammers'.

In the Czech Republic, we have a long-established network of EKIS (Energy Consultation and Information Centres), which mainly play a technical advisory role. Local Action Groups are also active at local level, helping with a range of technical and official tasks. The one-stop shops will therefore be a useful complement to this existing advisory network.

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The Energy Efficiency Directive 2023/1791 (EED III)



The Energy Performance of Buildings Directive 2024/1275 (EPBD IV)

# The construction industry is getting ready for decarbonisation

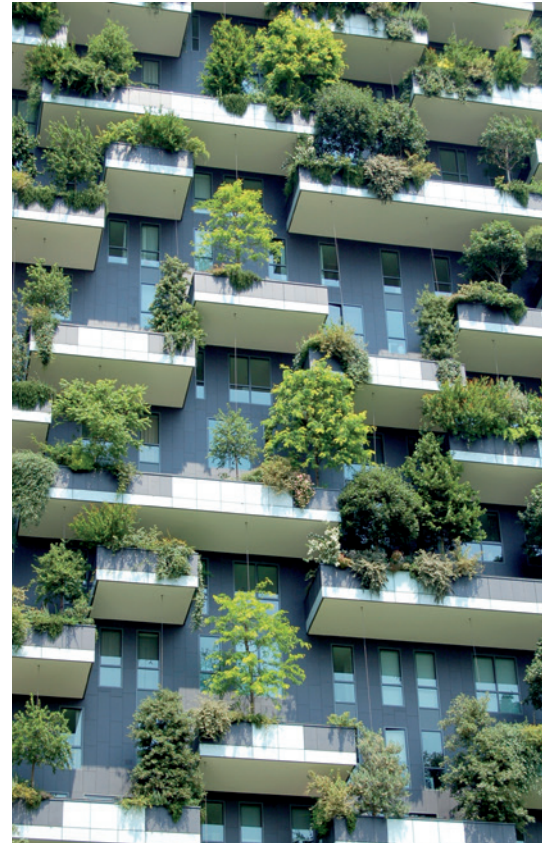
**T**he construction sector is key to achieving both the energy efficiency targets for buildings and decarbonisation. A recent survey of businesses in the sector showed that the climate and energy ambitions of many companies are growing. Nevertheless, the companies that do take a keen interest in the topic still represent only some 36% of businesses.



Slowing down climate change is becoming an urgent need that requires swift and decisive action in all parts of the economy, especially in sectors that have the greatest impact on greenhouse gas emissions, including the construction industry. As a result of policy measures, the price of greenhouse gas emissions, expressed in terms of the price of carbon, has risen significantly in recent years. Specifically, under the European Emissions Trading Scheme (EU ETS), this has gone from €8 per tonne in 2018 to €60 in 2021, and the price has not yet fallen below this level despite some fluctuations. Reducing greenhouse gas emissions is thus also becoming a new and important factor for competitiveness, prosperity and value creation of assets and companies, economic success, investment attractiveness and national prosperity in the Czech Republic.

Most of the construction companies that actively participated in the survey show some level of awareness of decarbonisation and energy efficiency. The interest in non-financial reporting, decarbonisation strategies and energy efficiency is only just beginning to emerge. Small and medium size enterprises in particular still lack the awareness, knowledge or skills to tackle these issues on their own.

The survey, carried out as part of a project funded by the Czech Technical Agency, focused on five key areas: ambition and perception of own capabilities in the area of decarbonisation and energy efficiency, approved or upcoming corporate decarbonisation strategies, corporate climate governance, non-financial reporting, the importance of energy assets and carbon footprint, and international standards used in these areas. Four types of companies were approached: construction companies, investors, manufacturers and suppliers of building materials and designers.



The results show that investors are the clear drivers of decarbonisation and energy efficiency. The interest of other types of businesses is lower, except for construction material manufacturers who take a keen interest in carbon footprint issues, reflecting the high sensitivity of materials production to carbon prices. While the price of carbon allowances is considered very important or important by 70% of respondents in the materials producers category, only 6% of the construction companies are of the same opinion.

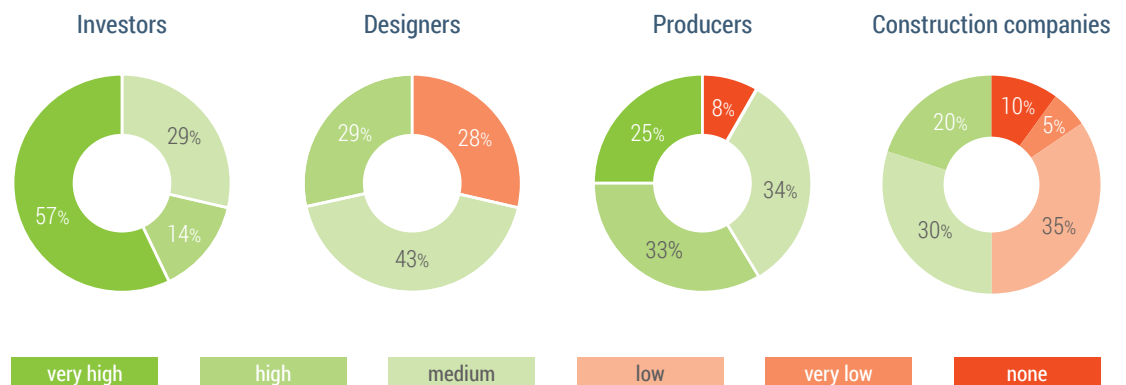
The overall lack of interest in this issue at the moment stems from the fact that companies do not consider this topic to be important for their future, which is in sharp contrast to the predictions of carbon price growth. For example, the renowned research company BloombergNEF issued a forecast earlier this year for the EU ETS price to rise to nearly €200 per tonne of carbon in 2035.

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**ANSWERS TO THE QUESTION: WHAT ARE YOUR AMBITIONS IN TERMS OF DECARBONISATION AND ENERGY EFFICIENCY BY 2025?**



# Assessing the multiple impacts of energy efficiency will support the application of the “energy efficiency first” principle

**E**nergy efficiency measures can have both positive and negative impacts that go beyond energy savings alone and are referred to as multiple energy efficiency impacts. These impacts cover a wide range of environmental, social and economic aspects of sustainability. While the assessment and consideration of multiple impacts is required by European legislation in the context of the implementation of the ‘energy efficiency first’ principle, MICATool offers decision makers the possibility to easily assess these impacts.

The environmental impacts of energy efficiency in buildings include lower CO<sub>2</sub> emissions and less air pollution. Social impacts encompass reduced energy poverty, improved indoor air quality and improved health. Key economic impacts include increased energy security, asset appreciation and reduced production costs, among others.

Assessing and taking into account these multiple impacts is enshrined in new EU legislation. Article 3 of the Energy Efficiency Directive (EED) establishes ‘energy efficiency first (EE1)’ as the fundamental principle of EU energy policy that Member States must take into account in all relevant policies and major investment decisions. This article requires the cost-benefit analyses to take into account the ‘broader benefits’ of energy efficiency measures. Before taking decisions on energy planning, policy and investment, the Member States should assess whether cost-effective, technically, economically and environmentally sound alternative energy efficiency measures could fully or partially replace the planned measures. This includes giving priority to demand-side solutions whenever they are more cost-effective than investments in energy infrastructure.

To assess the multiple impacts of energy efficiency, the MICATool was developed within the framework of the MICAT project coordinated by the Fraunhofer Institute. This tool allows for a comprehensive analysis of multiple impacts at European, national and local level. Its main objective is to enable policy makers and practitioners to conduct analyses for various policy scenarios. Currently, the LIFE-funded SEED MICAT project is extending the framework of the tool to renewable energy to apply the EE1 principle and compare the impacts of different alternatives on both the demand and supply side.

In order to improve the tool, the Fraunhofer Institute is organising workshops in cooperation with SEVEN to identify the needs of the ministries and other relevant stakeholders at national level (e.g. academics, agencies, industry).

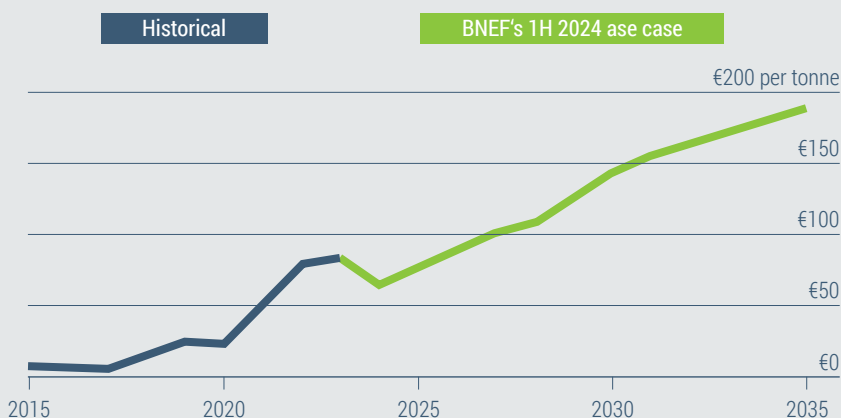
*If you would like to receive a newsletter with up-to-date information about the SEED-MICAT project, please reach out to us at the email address below.*

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

## FORECASTING A SIGNIFICANT LONG-TERM INCREASE IN CARBON PRICES UP TO €200 PER TONNE IN 2035



Source: BloombergNEF, ICE

Carbon prices under the European Emissions Trading Scheme (EU ETS) have seen a tenfold increase from €8 per tonne of CO<sub>2</sub> equivalent in 2018 to between €60 and €100 per tonne between 2021 and 2023. Experts disagree on which factors have had the greatest impact on this increase, but it is likely to have been a combination of several factors, such as regulatory changes limiting the quantity of allowances on the market, the introduction of stricter policies in the EU, speculation on the expected price increase and the role of external financial investors. The renowned BloombergNEF (2024) expects the price of EU emission allowances to fall to an average of €65/t this year before rising to €80/t in 2025 with the implementation of the already agreed reforms and policy revisions. They further predict the price to rise to almost €150/t by 2030, once cheaper forms of abatement have been exhausted and the supply of allowances is reduced. Prices could approach 200 €/t in 2035, should the policy parameters remain the same in Phase 5 of the EU ETS.

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## Waiting for the new State Energy Policy

**T**he State Energy Policy (SEP) is a strategic document that defines the state's objectives in the field of energy. The SEP is anchored and defined in Act No. 406/2000 Coll., on Energy Management, and its content is set out in Government Decree No. 349/2022 Coll., on the State Energy Policy and the Territorial Energy Policy. The State Energy Policy is approved by the Government on the proposal of the Ministry of Industry and Trade.

The last update of the State Energy Policy took place in 2015. The circumstances that have significantly affected the energy sector in recent years lead to the need to update it. The new update was to be completed by the end of 2023, but it was not until February 2024 that the strategy was sent for inter-ministerial comment. Although the new version of the SEP was originally scheduled for approval in March 2024, this has been postponed. According to a statement by the Minister of the Environment at the end of August 2024, it is now expected to be released later this year.

The State Energy Policy is linked to the *Territorial Energy Policies* (TEP), which set the objectives and principles of energy management at the level of regions, the capital city of Prague, its urban districts or municipalities. TEPs specify and develop the objectives of the SEP in the context of the territory and identify strategies for achieving them. TEPs are legally binding for the regions and the capital city of Prague. A municipality or municipal district of the capital city may also adopt a TEP for its territorial district or part. Prague, provided that it maintains consistency with the TEP of the supra-ordinate unit, i.e. the region or the capital city of Prague.

The Territorial Energy Policies are assessed at least once every 5 years by means of a *report on the implementation of the TEP* (ROI TEP). This report assesses the compliance of the TEP with the legislation, the compliance with the SEP and also the fulfilment of the objectives of the TEP in the past period. The report shall also include requirements for the preparation of a proposal for updating the TEP. Given the fundamental changes in the energy sector, all TEPs need to be updated as soon as possible, but this will only be possible after the much anticipated update of the SEP.

SEVEN has extensive experience in the preparation of strategic documents, including territorial energy policies and reports on their implementation. For example, in 2022 it produced the ROI TEP of the Olomouc Region and the Capital City of Prague, at the beginning of 2024 the ROI TEP of the Vysočina Region was completed, and during this year the ROI TEP of the South Moravian Region will also be completed. We expect that the approval of the new SEP update will start the process of updating the TEP of individual regions.

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**ENERGY EFFICIENCY NEWS**  
FROM THE CZECH REPUBLIC AND THE EU

Publisher: SEVEN, The Energy Efficiency Center, z. ú. – a non-profit consulting and research organization whose main mission is to contribute to economic development and environmental improvement through more efficient energy use. The newsletter informs about current trends in energy savings in the Czech Republic and the EU and promotes services in this field. Subscription: [www.svn.cz/zpravny](http://www.svn.cz/zpravny) Unsubscribe: Please contact the editorial team. Reprinting of articles and external contributions: only by agreement with the editorial office. Editorial team: Jana Szomolányiová ([jana.szomolanyiova@svn.cz](mailto:jana.szomolanyiova@svn.cz)), Juraj Krivosík ([juraj.krivosik@svn.cz](mailto:juraj.krivosik@svn.cz)), Václav Sebek. Graphic design: Pavel Cíndr Contact: SEVEN, The Energy Efficiency Center, z. ú., Americká 17, 120 00 Prague 2, +420 224 252 115, [seven@svn.cz](mailto:seven@svn.cz), [www.svn.cz](http://www.svn.cz)

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