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EU TRACKER - LOCAL HEATING AND COOLING PLANNING IN EU MEMBER STATES

The state of play and what will be needed to make it a standard practice across the EU

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FINDINGS AND POLICY RECOMMENDATIONS

SEPTEMBER 2024 (update)

EU TRACKER - LOCAL HEATING AND COOLING PLANNING IN EU MEMBER STATES

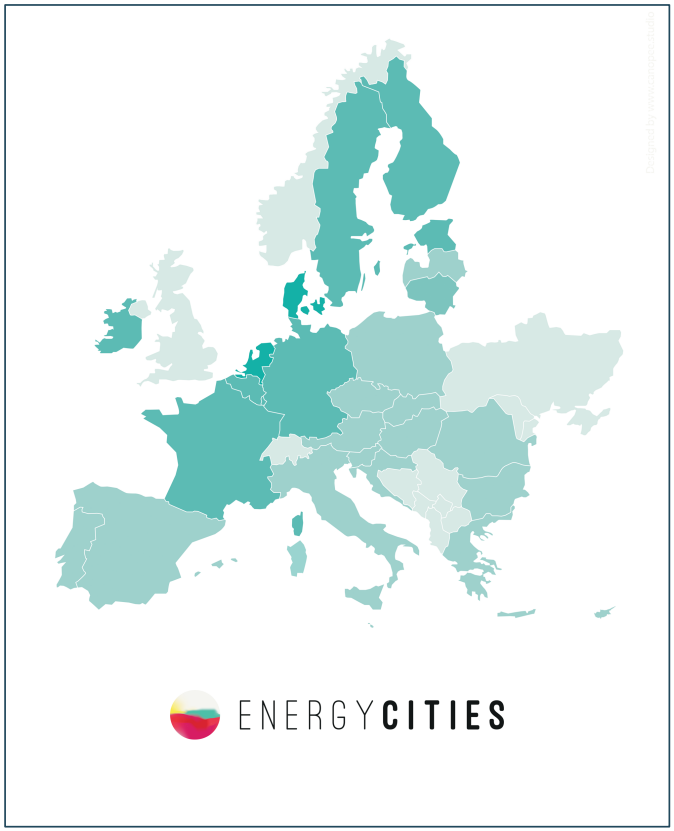
OUTLINE:

1/ A NEW EU OBLIGATION FOR LOCAL HEATING AND COOLING PLAN (2023) WITH A DEADLINE TO TRANSPOSE BY SEPTEMBER 2025.

2/ THE IMPORTANCE OF LOCAL PLANS TO DECARBONISE THE HEATING AND COOLING SECTOR

3/ LOCAL HEATING AND COOLING PLANS - WHAT IS THE STATE OF PLAY IN EU MEMBER STATES
- 3.1/ OVERALL ASSESSMENT (incl. transposition of the EED)
- 3.2/ LEGISLATIVE FRAMEWORK
- 3.3/ SUPPORT FRAMEWORK

4/ RECOMMENDATIONS AND GOOD PRACTICES



September 2024

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1/ A NEW EU OBLIGATION FOR LOCAL HEATING AND COOLING PLANS

A NEW EU OBLIGATION FOR LOCAL HEATING AND COOLING PLAN

The Recast Energy Efficiency Directive Art. 25.6 (2023):

- **Sets an obligation for local heating and cooling plans** "Member States shall ensure that regional and local authorities prepare local heating and cooling plans at least in municipalities having a total population higher than 45 000 inhabitants".

- Sets an **obligation for Member States to "support regional and local authorities to the utmost extent possible** by any means, including financial support and technical support schemes "

  & to "ensure that heating and cooling plans are aligned with other local climate, energy and environment planning requirements in order to **avoid administrative burden** for local and regional authorities and to encourage the effective implementation of the plans"

- Precise that the plans can be carried out jointly by a group of several neighbouring local authorities provided that the geographical and administrative context, as well as the heating and cooling infrastructure, is appropriate.

THE RECAST ENERGY EFFICIENCY DIRECTIVE ART. 25.6:

Details on mandatory objectives and content of the plans:

- ✓ An estimate, mapping and strategy for increased energy efficiency (via low-temperature district heating readiness, high efficiency cogeneration, waste heat recovery, renewable energy in heating and energy for cooling in the particular area)
- ✓ An analysis of the heating and cooling appliances and systems in buildings, which includes area specific potentials for energy efficiency measures – targeting worst performing buildings and vulnerable households
- ✓ A plan to finance the implementation of policies and measures
- ✓ A trajectory to achieve the goals of the plans in line with climate neutrality and a framework for monitoring the progress of the implementation of policies and measures

Details methodology and key principles:

✓ Involve all relevant regional or local stakeholders, the general public and operators of energy infrastructures in the preparation of the plan

✓ Consider the common needs of local communities and multiple local or regional administrative units or regions

✓ Assess the role of energy communities in the implementation of the strategy

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A NEW EU OBLIGATION FOR LOCAL HEATING AND COOLING PLAN

This new provision is a potential **GAME CHANGER** for Europe's energy transition and Member States' ability to decarbonise the built environment.

It will require:

1. An effective transposition of the proposition by Member States to regulatory and policy frameworks, no later than September 2025.
2. To provide local authorities with the tools and resources to make sound heating and cooling plans, and implement them

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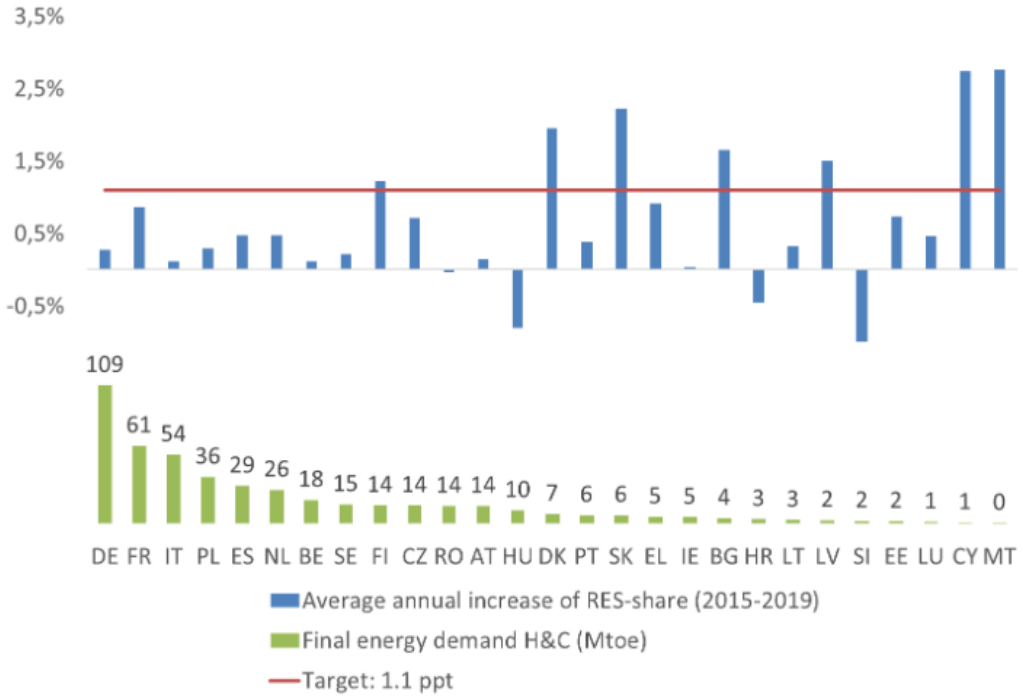
2/ THE IMPORTANCE OF LOCAL PLANS TO DECARBONISE THE HEATING AND COOLING SECTOR

THE DECARBONISATION IN THE HEATING AND COOLING SECTOR IS WELL BEHIND THE TARGETS



- Only 6 Member States have reached the target to increase the share of renewable energy sources by 1,1 percentage point in their final heating and cooling demand during the years 2015-2019.
- None of the 8 Member States having the highest energy demand for heating and cooling have reached this objective during the same period.

Figure: Average annual increase of Renewable Energy Sources shares in the years 2015-2019 and target of 1,1 percentage point increase. The lower part of the figure displays the final energy demand for heating and cooling in the Member States.

Source: *Renewable space heating under the revised Renewable Energy Directive*. Directorate-General for Energy (European Commission), E-Think, Fraunhofer ISI, TU Wien, Viegand Maagoe , Öko-Institut e.V. 2022

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WHY DO WE URGENTLY NEED LOCAL HEATING AND COOLING PLANS?

- ✓ **To have tailor-made strategies**. **Heating & cooling are local matters**: Local spatial and climatic conditions determine the nature of heating and cooling supply and demand. The decarbonisation strategies must therefore be adapted to the local context.

- ✓ **To get everyone on board and boost the implementation.** Only a local approach makes it possible to **engage citizens, as well as all private and public stakeholders** (businesses, utilities, public operators) so that they take ownership of and implement the decarbonisation strategy.

- ✓ We need to **bridge the gap between energy and spatial planning**, **to ensure cost-efficient, effective and optimised solution**. And ensure that citizens have safe and healthy living environments.

- ✓ **To have integrated energy planning.** At the local level, we can **approach the energy transition as a whole**, looking at all energy carriers and infrastructures (electricity, heat, cooling, biomass) and across sectors (building, transport, industry).

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WHAT ARE THE BENEFITS FOR MEMBER STATES?

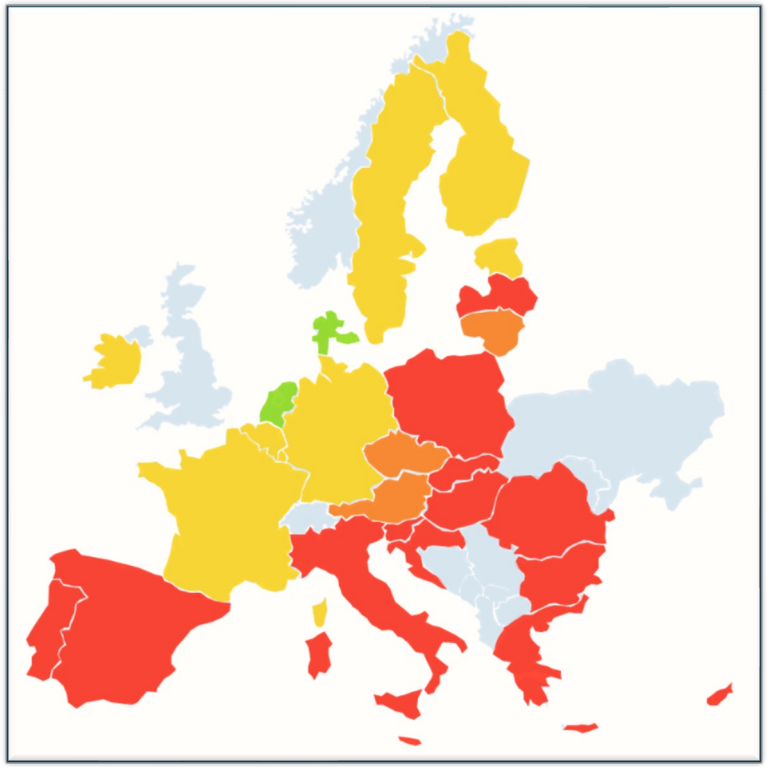
- ✓ To faster **reach** national efficiency & renewable heating and cooling **targets**
- ✓ **To reduce reliance on fossil fuels,** reduce final energy consumption and enhance energy security
- ✓ **To optimise public investment** to make the most decisive impact for emissions reduction & energy savings
- ✓ To bring the largest **benefits to citizens** by **alleviating energy poverty**, **reducing end-costs**, improving air quality and **public health** and **well-being**
- ✓ Making the **built environment** and **critical infrastructures** more **adaptable** and **climate-resilient**
- ✓ **Strengthening the capacity** for **effectively governing climate mitigation and adaptation**

3/ LOCAL HEATING AND COOLING PLANS - WHAT IS THE STATE OF PLAY IN EU MEMBER STATES

OVERALL ASSESSMENT – KEY TAKEAWAYS

1. The readiness level for local heating and cooling planning is highly uneven across Europe → See details for each country online

- Some countries are **historically strong** on energy and heat planning largely guided by **security of supply objectives** (Nordic countries)
- Several countries have made in the last years **great progress** in setting up effective frameworks for local energy or heating and cooling plans (e.g. The Netherlands, Germany, France, Belgium, Ireland, Luxembourg), guided by **climate mitigation objectives**
- Nevertheless, local heating and cooling planning is **fully absent in nearly half of EU member states**



Rating of the overall national framework for local heating and cooling plans, Energy Cities, sept 2024

OVERALL ASSESSMENT – KEY TAKEAWAYS

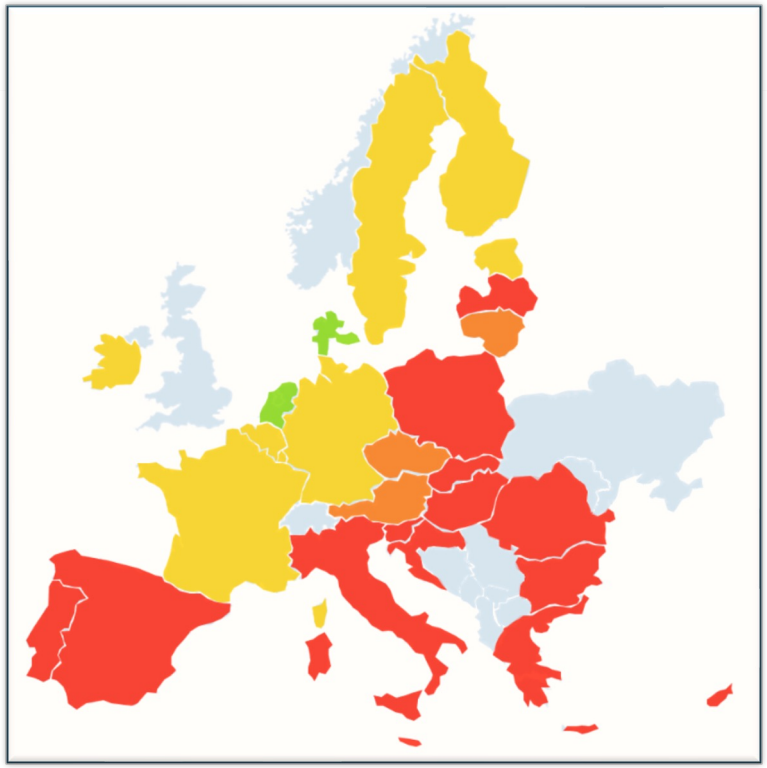
2. Without a great support framework, there is a clear risk for poor effectiveness and implementation of local heating and cooling plans

Countries setting up a local heating planning obligation tend to set up a good support framework (e.g. the Netherlands & Germany)

But local governments' resources (in particular staff) are not sufficient in most countries → Large gaps between legal obligation and execution (e.g. Slovenia, Poland)

3. Cooling planning noticeably overlooked

4. Energy planning documents (including SECAPs) **often lack detail and strategic and spatial dimensions**, and are not sufficiently aligned with spatial planning documents and national climate mitigation targets and objectives



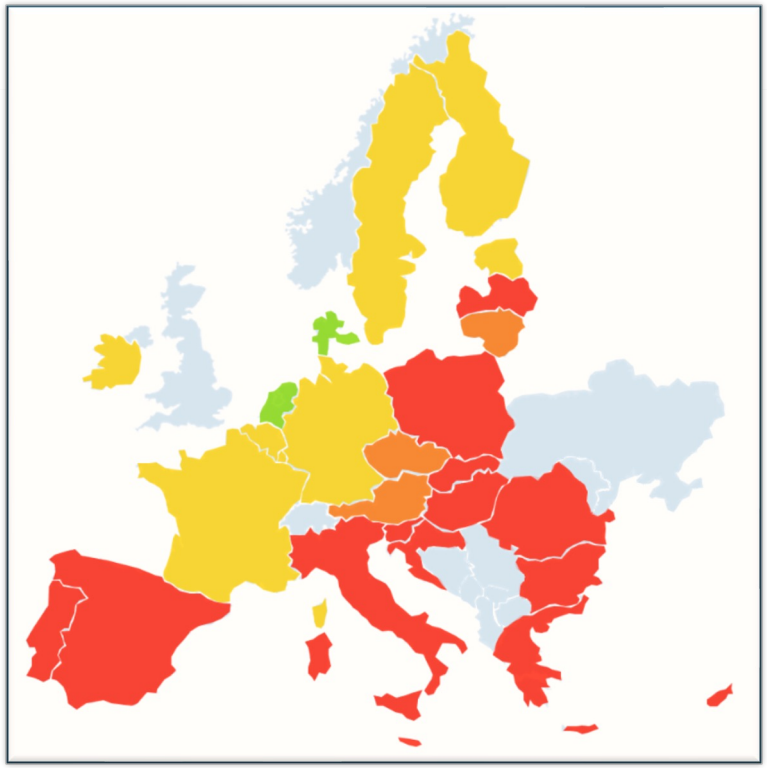
Rating of the overall national framework for local heating and cooling plans, Energy Cities, sept 2024

OVERALL ASSESSMENT – KEY TAKEAWAYS

Transposition of the new EED recast obligation for local heating and cooling planning **will require ambitious efforts to:**

- ✓ change legal framework and articulate it with existing obligations for local authorities
- ✓ strengthen technical and financial support mechanisms, including one-stop-shops for local heat planning
- ✓ improve coordination both vertically (municipalities, regions, nation states and EU) and horizontally (between municipalities and other stakeholders operating locally)
- ✓ provide good access to detailed-energy-related and other spatial data.

Member states have until September 2025 to transpose the directive. So far, only three Member States are ready: Germany, The Netherlands and Denmark.



Rating of the overall national framework for local heating and cooling plans, Energy Cities, sept 2024

LEGAL FRAMEWORK ASSESSMENT

- Some Northern European countries (with extensive district heating systems) have a **long tradition of local energy planning** (Denmark, Estonia, Finland, Sweden), which has been oriented towards security of supply more than decarbonisation.
- In recent years**, new obligations for local heat planning** have started to emerge, mainly guided by climate mitigation objectives. Some countries and regions been made mandatory e.g in the Netherlands and Denmark, in some German states (Länder) and all in Germany since 2024.
- In other countries or regions, it has been **strongly incentivized** and encouraged to achieve climate objectives (e.g., Flanders, Luxembourg, Ireland and France)
- **Greater awareness** of the importance of local energy planning, and of heat in particular, is apparent in some countries, but not yet properly translated in the regulatory framework (e.g., Slovenia)
- Nevertheless, a legal framework for local heat plans is **fully absent in nearly half of EU member states**

Rating of the legal framework for local heating and cooling planning, Energy Cities, Sept 2024

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LEGAL FRAMEWORK ASSESSMENT

A DIVERSE SET OF LEGAL FRAMEWORKS IN PLACE FOR HEAT PLANNING ACROSS EU MEMBER STATES

TYPOLOGY OF LEGAL FRAMEWORKS FOR LOCAL HEAT PLANNING					
No legal framework in place	Energy (and heat) supply plans obligatory but without clear links to spatial planning or climate plans	Obligatory heat planning linked to spatial planning but with limited alignment with climate planning	Obligatory heat plans. Integration with spatial planning and with climate planning and decarbonisation encouraged.	Heat planning partially addressed via climate and energy plans or developed on a voluntary basis	Obligatory heat planning integrated with climate plans and spatial development plans
Portugal; Spain; Malta; Cyprus, Bulgaria; Romania, Hungary; Greece; Latvia; Croatia	Poland; Slovakia; Slovenia; Italy	Estonia; Lithuania; Austria (in some Länder)	Denmark; Sweden	France; Ireland; Flanders (Belgium); Luxembourg; Finland	The Netherlands; Germany (federal obligation since 1.1.2024)

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LEGAL FRAMEWORK ASSESSMENT

COMMON FACTORS UNDERMINING THE EFFECTIVENESS OF HEATING AND COOLING PLAN OBLIGATIONS:

Too limited scope, as heat planning is often redistricted to:

- Specific objectives, technologies (e.g., district heating and cooling networks development and targeted projects (e.g., energy refurbishment schemes)
- Planning for improved efficiency often strictly limited to municipal or public assets (e.g., public buildings such as in Greece).

Weak legal mandate for local authorities:
Limited tools for municipalities to utilise planning regulation and building codes to effectively regulate heating supply sources and infrastructures.

Silo approach to energy planning:
Heat or energy planning often executed in isolation from the overall strategic spatial planning, climate-related actions, and often not aligned to cross-level planning, and national climate targets, strategies and objectives.

A lack of effective coordination between local heat strategies, national programs targeting homeowners (e.g., subsidies for refurbishment or heat system changes), and infrastructure planning done by energy grid operators.

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LEGAL FRAMEWORK ASSESSMENT

COOLING LEFT IN THE COLD

On a trend of surging demand for energy use for cooling. This demand is associated with high carbon-intensity and has caused power outages across southern Europe during periods of high demand.

Urban environments and livelihoods increasingly exposed to extreme heat (Nearly 62 000 excess deaths related to heat estimated in Europe in 2022).

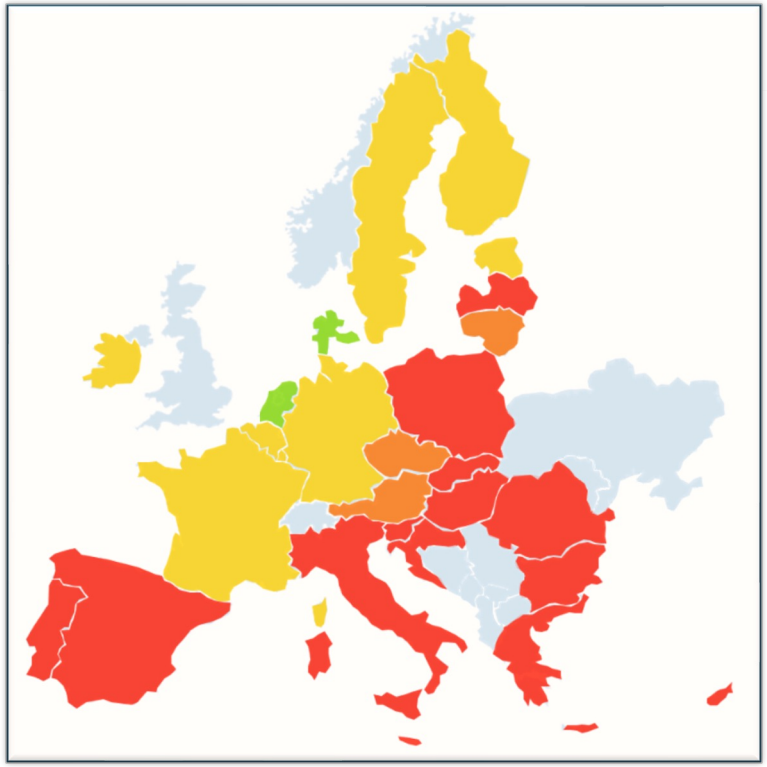
Space cooling (and its associated energy use) in most countries not considered in strategic spatial planning, and rarely covered in building codes, land-use control and planning instruments.

- Space cooling is by far not considered as important as heating in national policies. For instance, the provision of cooling in Denmark is treated as a commercial activity, while the provision of heat is treated as a public service.
- Integrating cooling aspects in local spatial planning and urban design is key to ensure (spatially) optimised, efficient and sustainable space cooling, while fostering more heat-resilient built environments.

SUPPORT FRAMEWORK ASSESSMENT

GENERAL OBSERVATIONS:

- Countries with obligations in place often have **technical and organisational support frameworks,** built and developed over a long period of time (e.g. Nordic Countries)
- Dedicated **financial support** for heating and cooling are often project-based. There is a lack of funding for planning strategic planning activities
- **Staffing and skills** capacities for integrated energy planning is a massive constraint in nearly all countries, with a high reliance on consultants
- Limited **access to energy-related and other geodata** is a large obstacle for developing heating and cooling plans in most countries, also in countries with high degree of digitalisation



Rating of the support framework for local heating and cooling planning, Energy Cities, Sept 2024

SUPPORT FRAMEWORK ASSESSMENT

TECHNICAL AND ORGANISATIONAL SUPPORT

- Some technical support useful for heat planning is provided as guidelines in many countries.

- However, when existing, technical support is :
  - Often linked to energy supply policies
  - Rarely targeted towards integrated strategic energy planning (covering all energy carriers and technologies to decarbonise heating and cooling)
  - Instead targeted towards certain aspects of heat planning (such as renewable thermal energy production).

- Organisational support in some cases coordinated through horizontal networks (local authorities' network, regional cooperation...) but often not institutionalized and fully integrated in national policy frameworks

What kind of technical and organisational support exists for local authorities?

- Guidelines on how to perform heat planning (process, scope, calculation methodologies, references (such as catalogue of costs) and baseline scenarios) and tools (such as modeling tools for heat demand and decarbonisation pathways))
- Practice and exchange groups, based on scientific expertise and feedbacks
- Technical assistance and helpdesk service
- Coordination platforms to align content of heat planning at geographical level (usually regional)

SUPPORT FRAMEWORK ASSESSMENT

STAFF AND SKILLS–
The key barrier for local heating and cooling planning:

- Noticeable **staffing shortage** in local administrations across most Member states
- Often only one staff dedicated to energy issues, with limited coordination across municipal departments (climate, energy, social, urban/spatial development etc.)
- Programs to train and hire new staff for heating or energy planning **only established in a handful of Member States** (e.g., Denmark, Ireland, the Netherlands, Germany)
- In some cases, local authorities have obligation to have dedicated staff but lack funding means and dedicated funding (e.g., Greece).

Noticeably high reliance on external contractors in most countries, which:

- **Prevents** local administrations to build skills, knowledge and capabilities 'in house' sustained over time, which makes climate action unnecessarily costly in the long term (Cf. Mazzucato and Collington, 2023)
- Likely **negatively impacts the alignment, assessment and implementation of local heating and cooling plans**. Likely reduces the possibility to engage stakeholders and citizens in the heat decarbonisation.
- Energy Cities has estimated that **local authorities lack around 214,000 full-time employees** to achieve the climate goals in the built-environment by 2030

SUPPORT FRAMEWORK ASSESSMENT

FINANCIAL SUPPORT

- **Few countries have nationally dedicated funding for heat planning** (e.g. ,Germany, Luxembourg, Flanders). These funds are often limited (between 10 and 50 k€ per municipality), lack long-term visibility, and are also insufficient to ensure a proper implementation of these plans.

- **Large variation of decentralisation of public funding** allocated to the green transition (cf. findings by CEMR). Municipalities with a more decentralized model for climate adaptation and mitigation investment (e.g, the Nordic Countries) have much larger financial resources available and can dedicate them to heating and cooling planning.

- **Administrative capacity constraints** for accessing available EU funding is a recurrent issue (this has been also identified by regional authorities when distributing European Regional development funds for heat planning purposes).

- **Huge reliance on EU projects and funds for activities related to decarbonizing heating and cooling** for municipalities without access to national financial support mechanisms and with limited budgetary means.

- Available financial mechanisms for efficient heating and cooling are often **project-based and targeted towards specific technologies** (e.g., to replace gas with biomass in district heating networks).

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SUPPORT FRAMEWORK ASSESSMENT

ACCESS TO DATA

- **Rarely centralized access** to energy-related geodata through databases and platforms, made available in a harmonized format
- Municipalities often **not in control or possession** of data needed for heating and cooling planning. In most countries, there is no obligation for energy utilities and network operators to publish their data or provide them to local authorities.
- Access to building-related data (age, surface, energy performance), energy consumption data and heating systems **often limited to public buildings,** and hence lacking for to the private building stock
- Energy-related geodata accessible to local authorities **rarely sufficiently granular** (detailed and accurate) and not regularly updated. Using such data requires complex modeling and extensive data treatment, which greatly adds to the costs associated with energy planning.

4/ RECOMMENDATIONS AND GOOD PRACTICES

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HOW TO BEST SET A LEGAL FRAMEWORK FOR LOCAL HEATING AND COOLING PLANS ?

A GOOD GOVERNANCE MODEL

- ✓ **The more the merrier: all local authorities (or at least the ones above 45,000 inhabitants) should be concerned by the obligation and supported.** The greater the number of local authorities involved, the easier it is to build a collective dynamic and make a significant impact. Also, time is running out, and cities need to start planning now, as it will take several years to put in place.
- ✓ **Clear national and regional heat strategies** should guide local heating and cooling plans
- ✓ The obligation should make sure plans are **updated regularly** to maintain alignment with other policies and innovations.
- ✓ **Cooperative methodology is a must** – the national legislation should detail a methodology based on the engagement of local stakeholders [e.g., local working group, collaboration with other departments in the administration, with the local energy agency or utility, …] to draft the local heating and cooling plan

Be careful: the new obligation should complement what it is existing as climate, energy or urban spatial planning and increase the overall ambition of local energy plans

BEST PRACTICE :

Excellent multilevel coordination in **The Netherlands:**

Strong coordination between the national, regional and local decarbonisation strategies, via multi-level dialogue and various working groups. According to the Dutch Climate Agreement, the municipal vision on heat transition shall comply with regional energy strategy

HOW TO BEST SET A LEGAL FRAMEWORK FOR LOCAL HEATING AND COOLING PLANS ?

WIDE SCOPE & CLEAR CONTENT OF THE PLANS

- ✓ **Encompass all energy carriers and energy infrastructures** (not reduced to district heating networks projects)
- ✓ Include detailed analysis of the demand side (mainly building sector) and the supply side, and combine them into decarbonisation scenarios.
- ✓ Target to reduce overall demand and to achieve integrated urban and energy planning.
- ✓ Include **detailed requirements for cities**, based on existing best practices: it should at least include:
    1. Vision and objectives (a high-level vision for sustainable heat in the city, the benefits heat decarbonisation will bring to the city, a summary of the objectives and targets for the strategy)
    2. Spatial Heat analysis (current and future heat demand, future scenarios to identify heat opportunities and feasibility, citizen engagement and views, stakeholder analysis, skills, competences and labour force needs, policy and financial instruments)
    3. Delivery plan (engagement, decision-making system, costs and business cases, monitoring and evaluation)

BEST PRACTICE:

In **Baden-Württemberg** (Germany), local heat plans include a scenario for climate-neutral heating by 2040 with interim targets for 2030, including a spatial representation of the planned heating supply structures.

In **Denmark**, areas of collective heat supply with socioeconomic considerations are identified in heat plans, which provides a long-term strategic framework for transforming heating systems.

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HOW TO BEST SET A LEGAL FRAMEWORK FOR LOCAL HEATING AND COOLING PLANS ?

GIVE THE RIGHT LEGAL MANDATE

- ✓ **Utilities shall comply with local heating and cooling plans.** The European legislation under the Gas Package creates a strong link with DSO's and their own planning. National legislation should follow this example. While local authorities can often regulate district heating systems, they are often not associated to gas infrastructure planning
- ✓ **Give the legal mandates to local authorities to exclude some heating technologies** from the building stock in certain areas of their territories to be able to achieve their climate goals quickly.
- ✓ **Remove all legal obligations to connect buildings to natural gas networks**, which prevents municipalities to achieve decarbonisation targets of their heating plans.

BEST PRACTICE:

In **Denmark**, city councils regulate both district heating and natural gas networks, which gives a strong legal mandate for municipalities.

City councils can decide about compulsory connection to district heating for existing and new buildings in the collective heat supply areas and exclude some heating systems in existing or new buildings.

It allows municipalities to provide a long-term vision of the energy systems and ensure economic viability.

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HOW CAN MEMBER STATES BEST SUPPORT LOCAL AUTHORITIES ?

PROVIDE A COMPREHENSIVE TECHNICAL SUPPORT

- ✓ **Mandate one organization (e.g. national agency or ministry) to coordinate the support to local authorities**
- ✓ **Launch a national program for local heating and cooling planning,** involving stakeholders (academic and scientific experts, local authorities, energy suppliers and distribution system operators, social housing, industries, building sector…). This program should propose guidelines and tools and update them with new knowledge and feedbacks from practitioners over years.
- ✓ **Technical support should include a mix of online and in-person support.** Online helpdesk should include step-by-step guidance, calculation methodologies, tools, costs of different technologies and potential of renewable energies. In-person support should include trainings, peer-to-peer exchanges, working groups and expertise.
- ✓ **Improve technical support to local authorities which may already exist for energy planning or climate policies, by adding a specific focus on the spatial dimension of heat planning**
- ✓ **Establish a list of trustworthy consulting companies** able to support local authorities.

BEST PRACTICE:

In **Flanders** (Belgium), the Flemish Energy and Climate Agency provides a technical guidance package :

(1) A heat guide which contains step by step guidance for drawing up a local heat plan, an overview of potential partners and financing options, and a catalogue of technologies

(2) A heat zoning inspirational map which provides to municipality a first view on the different heating zones and the potential for district heating and cooling network on their territories

(3) A template for tender specifications for the making of heat plans

(4) A support programme where municipalities can exchange ideas and practices.

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HOW CAN MEMBER STATES BEST SUPPORT LOCAL AUTHORITIES ?

ENSURE SUFFICIENT FINANCIAL SUPPORT

- ✓ **Provide financial support specifically for strategic planning** (data collection and treatment, diagnostic, engagement of stakeholders, etc.)
- ✓ **Provide multi-annual financial support to give visibility to local authorities** and allow them to internalize competencies on the long-term. Permanent financial mechanisms should be developed, for instance via earmarked national or local taxes.
- ✓ Financial support should finance both staff municipalities and external expertise, and should **allocate more resources to medium-sized and small municipalities**
- ✓ No new obligation without additional support: financial support should cover at least 80% of the costs of the planning exercise.
- ✓ **Delegate the management of existing national and regional funds** to local authorities
- ✓ **Pre-finance the costs** of the technical expertise to avoid long lead times

The EU should support Member States by integrating local heating and cooling planning in its Technical Assistance programme and as a priority in the current and future European Regional Development Fund.

BEST PRACTICE

In **Baden-Wurttemberg** (Germany), local authorities receive a financial support of 45,000€ to prepare their heat plans.

In France, the national Heat Fund can be decentralized and managed by local authorities to finance feasibility studies for renewable heat projects and district heating schemes.

In Wallonia, the Region finances feasibility studies for district heating up to 75% of the costs and pays the consultancy directly; the municipality pays the reminding cost to the region when the study is delivered.

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HOW CAN MEMBER STATES BEST SUPPORT LOCAL AUTHORITIES ?

DEVELOP STAFF CAPACITIES OF LOCAL AUTHORITIES

- ✓ **Technical support is not sufficient if local authorities can't dedicate human resources to develop and implement their heating and cooling plans**
- ✓ **Include in the National energy and climate plans an analysis of the needs of additional employees in local authorities** to carry out heat planning and the transition in general. For instance, such evaluations have been carried out in France independently and the Netherlands for the government.
- ✓ **Provide permanent funding to local authorities to hire skilled staffs** (the heat transition is a necessity for the next 30 years, it is not a 3-year project)
- ✓ **Pool human resources and competencies** that local authorities can easily benefit via the **development of local and regional energy agencies**
- ✓ **Provide training programs and engage with the academic sector** to develop dedicated curriculum, for instance in the format of a municipal heat competence center
- ✓ **Support local authorities in defining job position descriptions and hiring strategies.** Discover the different job positions needed in local administrations to carry out the transition of the heat sector and the built environment on our LocalStaff4Climate website.

BEST PRACTICE

In t**he Netherlands**, municipalities engaged in the Out of Gas program receive national fund to finance job position to perform heat planning.

In **Scotland**, the government evaluated the additional staff capacities required by local authorities to implement their Local Heat and Energy Efficiency Strategies and the obligations related to the new Heat Networks Act.

In **Germany**, the national energy agency, DENA, created a municipal heat competence centre, to provide trainings and guidance to local authorities.

In **Sweden**, local authorities can hire staff through the regional energy agencies.

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HOW CAN MEMBER STATES BEST SUPPORT LOCAL AUTHORITIES ?

PROVIDE AN EASY ACCESS TO DATA

- ✓ **Provide centralised databases accessible to local authorities** for all data necessary for heat planning (building-related data (energy performance, size, age, heating systems, etc.), energy consumption data (all carriers), energy infrastructures, renewable energy potentials)
- ✓ **Oblige energy utilities and grid operators to share their data for free and in a specific format easy to exploit** for local authorities
- ✓ **Require enough granularity from data owners**: heat planning requires data at street and building levels to be precise enough
- ✓ **Finance the collection and treatment of raw data and geodata by third-parties to provide ready-to-use datasets for heat planning purposes** (diagnostic, heat maps...)
- ✓ **Provide Geographic Information System tools for calculating heat scenarios**, filled with datasets

BEST PRACTICE

In **France**, grid operators and fuel suppliers must share their data publicly at street level (aggregation of 10-supply points in the residential sector). Regions and the National energy agency finance regional air, energy and climate observatories which provide already-treated data to local authorities.

In **Denmark**, local authorities have access to national databases in which homeowners need to provide energy-related information (heating systems, energy consumptions). It was the case in Poland as well, but unfortunately not anymore.

In **Estonia**, the technical and economic potentials are available for most of the renewable energy sources and financed by national funds.

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HOW CAN MEMBER STATES BEST SUPPORT LOCAL AUTHORITIES ?

Make it obligatory, and give local authorities the mandate to use these plans to guide the transition towards decarbonised, resilient and healthier living environments

+

Ensure that local authorities are not overburdened

+

Create a One-Stop-Shop with all the resources needed to make and finance local heating and cooling plans

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HOW CAN MEMBER STATES PROPERLY TRANSPOSE ARTICLE 25.6?

1. **Threshold Definition** – Developing a local plan is mandatory for municipalities with more than 45,000 inhabitants. However, it is recommended to adopt a relatively lower threshold (e.g., for municipalities with more than 20,000 inhabitants) to equip a larger portion of the national territory with local plans. Secondly, we advise maintaining support for municipalities voluntarily engaged in heat and cold planning and providing appropriate resources based on the capacities of small, medium, and large municipalities. The threshold should be adapted to the national and regional context.

2. **Announced Timeline** – The directive does not specify a timeline for adopting local plans; however, they must contribute to achieving the 2030, 2040, and 2050 goals. Therefore, they must be adopted well before 2030. The national transposition must incorporate a precise timeline for the adoption of local plans. This timeline can be adjusted based on several criteria: municipality size, existing obligations, etc.

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HOW CAN MEMBER STATES PROPERLY TRANSPOSE ARTICLE 25.6?

3. **Synergies with Existing Plans** – To avoid additional administrative burden on municipalities, it is strongly advised that these plans be tied to existing planning obligations (energy and climate plans, local urban plans, etc.), while simultaneously enhancing ambition and specifically addressing heat and cold uses (production, consumption, transport, and distribution). This could be reflected in a population threshold for obligated municipalities and an implementation schedule aligned with existing plans.

4. **Collected and Centralized Data** – The transposition of the directive must facilitate the collection and availability of energy data for local authorities. Data availability is essential for establishing diagnostics and constructing decarbonization scenarios for heat and cold uses. For example, this could involve the creation of a common centralized platform providing essential datasets (energy consumption, building stock, infrastructure, renewable energy production potential, etc.).

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HOW CAN MEMBER STATES PROPERLY TRANSPOSE ARTICLE 25.6?

5. **Structured Methodology** – Article 25.6 sets minimum conditions for developing local plans; however, the directive does not provide a complete methodological framework or model. To ensure sufficient plan quality, data harmonization, and effective management, a common methodology for various municipalities should be provided. This could take the form of a multi-step approach framed by selection criteria: defining ambition and mobilizing stakeholders, analyzing the current situation, assessing decarbonization potential, constructing scenarios, their adoption and implementation, and evaluation. The methodology could also encourage neighborhood-scale planning. This methodology should also frame stakeholder involvement.

6. **Strategic and Spatial Planning** – The transposition of Article 25.6 should enable local authorities to develop strategic and spatial decarbonization plans for various heat and cold uses, incorporating the geographic and economic specificities of their territories, building stocks, and taking into account all energy vectors (electricity, heat, cold, gas). The transposition should not be limited to planning centered around one or more technologies (district heating, geothermal energy, etc.).

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7. **Co-construction with Stakeholders** – The adoption and implementation of local plans require the involvement of numerous actors to achieve climate neutrality. Beyond consultation, the transposition must provide for the co-construction of local plans with local and regional energy, housing, urban planning, industry, and tertiary sector actors, as well as citizens and consumers. For example, this could involve engaging residents in energy projects by developing the legal framework for the creation of energy communities for renewable heat, or aligning local heat and cold planning with the planning of energy operators.

8. **Technical and Financial Support** – The directive stipulates that Member States should support local and regional authorities in planning and decarbonizing heat and cold. Without this support, there is a high risk that this new obligation for local authorities will be merely an administrative exercise with no real impact on reducing greenhouse gas emissions. Member States should create national competence centers to guide local authorities and establish financial mechanisms to support both the planning requirement and the implementation of actions in these local plans.

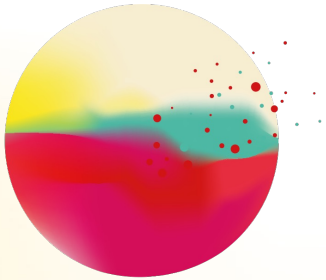
LEARN MORE

Technical resources from EU-funded projects

- ✓ Decarb City Pipes 2050: Find technical guidance from cities to cities, best practice examples of heat and cooling plans, and heat strategies, as well as policy recommendations from cities.
- ✓ SHIFFT: Find 4 guidance modules on stakeholders' engagement and co-creation, financial instruments, policy tools, and technology choices, to develop heat strategies.
- ✓ Tools: Hotmaps is a GIS-based online software to set up a strategic heating and cooling plans. THERMOS is a planning tool for feasibility studies of district heating and cooling networks. Act!onHeat is an example of an EU-funded technical support facility for local authorities' developing heating and cooling strategies.

More from our work about heating and cooling:

- ✓ Learn more about the staffing gap in local authorities for energy planning and what the EU and the Member States can do
- ✓ How to phase out fossil gas by 2035? The civil society has defined 10 points that should guide policy makers
- ✓ Discover the European "Action plan for heating and cooling decarbonisation" that we need, developed with 11 EU other energy organisations
- ✓ Why hydrogen should not be used for space heating? Read our myth buster on gases and renewable heating technologies



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