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Date: 20/11/2025 14:32:30

Open public consultation - Questionnaire on the heating and cooling strategy

Fields marked with * are mandatory.

Introduction

About you

*Language of my contribution

- Bulgarian
- Croatian
- Czech
- Danish
- Dutch
- English
- Estonian
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- French
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- Hungarian
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* I am giving my contribution as
  - Academic/research institution
  - Business association
  - Company/business
  - Consumer organisation
  - EU citizen
  - Environmental organisation
  - Non-EU citizen
  - Non-governmental organisation (NGO)
  - Public authority
  - Trade union
  - Other

* First name

The Bioenergy Association

* Surname

of Finland

* Email (this won't be published)

info@bioenergia.fi

* Organisation name

255 character(s) maximum

Bioenergia ry - the Bioenergy Association of Finland

* Organisation size

- (•) Micro (1 to 9 employees)
- ( ) Small (10 to 49 employees)
- ( ) Medium (50 to 249 employees)
- ( ) Large (250 or more)

Transparency register number

Check if your organisation is on the transparency register. It's a voluntary database for organisations seeking to influence EU decision-making.

174042620514-51

* Country of origin

Please add your country of origin, or that of your organisation.

This list does not represent the official position of the European institutions with regard to the legal status or policy of the entities mentioned. It is a harmonisation of often divergent lists and practices.

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- Bosnia and Herzegovina
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- Brazil
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- British Virgin Islands
- Brunei
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- Gabon
- Georgia
- Germany
- Ghana
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- Greece
- Greenland
- Grenada
- Guadeloupe
- Guam
- Guatemala
- Guernsey
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Heard Island and McDonald Islands
- Mauritania
- Mauritius
- Mayotte
- Mexico
- Micronesia
- Moldova
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Myanmar/Burma
- Namibia
- Nauru
- Nepal
- Netherlands
- New Caledonia
- New Zealand
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- Niger
- Nigeria
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- Somalia
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- South Georgia and the South Sandwich Islands
- South Korea
- South Sudan
- Spain
- Sri Lanka
- Sudan
- Suriname
- Svalbard and Jan Mayen
- Sweden
- Switzerland
- Syria
- Taiwan
- Tajikistan
- Tanzania
- Thailand
- The Gambia
- Timor-Leste
- Togo

- Burkina Faso
- Burundi
- Cambodia
- Cameroon
- Canada
- Cape Verde
- Cayman Islands
- Central African Republic
- Chad
- Chile
- China
- Christmas Island
- Clipperton
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- Congo
- Cook Islands
- Costa Rica
- Côte d’Ivoire
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- Tonga
- Trinidad and Tobago
- Tunisia
- Türkiye
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- Tuvalu
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- United Kingdom
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- Vatican City
- Venezuela
- Vietnam
- Wallis and Futuna
- Western Sahara
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- Lebanon
- Lesotho
- Liberia
- Saint Helena Ascension and Tristan da Cunha
- Saint Kitts and Nevis
- Saint Lucia
- Zambia
- Zimbabwe

* Are you active (core business) in a field related to heating and cooling?

- (●) Policy and advocacy
- ( ) Administration (planning, permitting, national or local administration)
- ( ) Energy utilities
- ( ) Finance
- ( ) Advisory services, energy service companies
- ( ) Energy communities or cooperatives
- ( ) NGO
- ( ) Manufacturing of heating and cooling appliances and systems
- ( ) Installation/sales or maintenance of heating and cooling appliances and systems
- ( ) Construction or building renovation
- ( ) Operators of district heating and cooling system
- ( ) Industry
- ( ) Operators of cogeneration plant
- ( ) Housing providers
- ( ) Data centres
- ( ) Other (please specify)
- ( ) Not active in this field

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Part A - Scope

* 1. How relevant is the Heating and Cooling Strategy to the following objectives?

Use drag&drop or the up/down buttons to change the order or accept the initial order.

- ⠿ Energy security
- ⠿ Decarbonisation
- ⠿ Sustainability and environmental protection
- ⠿ Energy affordability
- ⠿ Addressing energy poverty
- ⠿ Competitiveness
- ⠿ Energy efficiency
- ⠿ Fairness, consumer protection and empowerment

Public health

Other (please specify)

100 character(s) maximum

2. How relevant for EU policy is the challenge of the growing cooling demand?

Rate from 1 (not relevant) to 5 (very relevant)

1) In buildings/space cooling	★★★☆☆
2) In data centres	★★★★★
3) In energy infrastructure	★★★☆☆
4) In industry	★☆☆☆☆
5) Other (please specify)	☆☆☆☆☆

Other (please specify)

200 character(s) maximum

Please specify how, according to you, this challenge is relevant for EU policy.

500 character(s) maximum

Utilisation of heat from cooling of data centres is a crucially important aspect. In buildings, more emphasis has to be paid on energy efficiency of the rising cooling demand.

Part B - Barriers

1. According to you, what are the key barriers to the **affordable decarbonisation of space heating?**

(please select up to 5 key barriers per building category)

	Residential – individual	Residential – collective	Non residential - public	Non residential - private
Regulatory complexity	☐	☐	☑	☑

Infrastructure-related barriers	☑	☑	☑	☑
Poor energy performance of buildings	☐	☐	☐	☐
High initial investment	☑	☑	☑	☑
High operational costs (eg electricity price)	☐	☐	☐	☐
High financing costs	☐	☐	☐	☐
Insufficient return on investment	☑	☑	☐	☑
Administrative/regulatory barriers	☑	☑	☐	☐
Length and complexity of installation	☐	☐	☐	☐
Technical barriers	☐	☐	☐	☐
Shortage of skilled professionals (planners, installers, etc.)	☐	☐	☐	☐
Long waiting time for installation	☐	☐	☐	☐
Lack of incentives for landlord and/or tenant in case of rental	☐	☐	☑	☑
Insufficient awareness, trust or unwillingness towards decarbonisation solutions	☐	☐	☐	☐
Lack of fit-for-purpose or easily available technologies	☐	☐	☐	☐

Other (please specify/develop)

200 character(s) maximum

Incentives that maintain fossil fuel options, such as fossil fuel subsidies or low taxes for fossil fuels.

2. According to you, what are the key barriers to the **affordable decarbonisation of industrial process heat?**

(please select up to 5 key barriers for each temperature level)

	Industrial heat below 200°C	Industrial heat between 200°C and 500°C	Industrial heat above 500°C
Regulatory complexity	☐	☐	☐
Infrastructure-related barriers	☐	☐	☐
High capital cost	☑	☑	☑

High operational costs	☐	☐	☐
High financing costs	☐	☐	☐
Lack of access to clean energy contracts, including PPAs	☐	☐	☐
Length of permitting processes	☐	☐	☐
Lack of flexibility of industrial process	☐	☐	☐
Challenge to adapt or redesign industrial process to match renewable heat supply or electrification	☐	☐	☐
Impact on competitiveness vis-a-vis EU competitors	☑	☑	☑
Impact on competitiveness vis-a-vis international competitors	☑	☑	☑
Lack of technology adapted to specific needs	☐	☐	☐
Lack of operational standards adapted to specific needs	☐	☐	☐
Insufficient awareness, trust or unwillingness towards decarbonisation solutions	☐	☐	☐
Complexity and length of State aid procedures	☑	☑	☑

Other (please specify/develop)

200 character(s) maximum

Complexity and uncertainty that has unluckily been created around biomass use for decarbonisation of industry.

* 3. According to you, what are the key barriers to **affordable decarbonisation through efficient district heating and cooling in line with Article 26 EED**?

Maximum 5 selection(s)

- ☑ Regulatory complexity
- ☑ Infrastructure-related barriers
- ☐ Administrative barriers
- ☐ Technical barriers
- ☐ Skill-related barriers
- ☐ High initial investment
- ☐ High operational costs
- ☐ High financing costs

- [x] Insufficient awareness or trust in solutions
- [ ] Lack of fit-for-purpose or easily available technologies
- [ ] Lack of available renewable resources
- [ ] Limits unnecessarily consumer choice
- [x] Complexity and length of State aid procedures
- [ ] N/A

Other (please specify/develop)

200 character(s) maximum

Incentives that maintain fossil fuel options.

4. According to you, what are the key barriers to **the deployment of thermal energy storage?**

(please select up to 5 key barriers for each sector of application)

	In industry	In district heating and cooling
Regulatory complexity	☐	☐
Infrastructure-related barriers	☐	☐
High initial investment	☑	☑
High operational costs	☐	☐
High financing costs	☐	☐
Administrative barriers	☐	☐
Technical barriers	☐	☐
Insufficient awareness or trust in solutions	☑	☑
Lack of fit-for-purpose or easily available technologies	☑	☑

Other (please specify/develop)

200 character(s) maximum

5. According to you, what are the key barriers to **the recovery of waste (excess) heat?**

(please select up to 5 key barriers for each source of waste heat)

	Industrial waste heat	Waste heat from data centres	Waste heat from other cooling and refrigeration processes	Waste heat from public infrastructure/ services (e.g. wastewater treatment, subway)	Waste heat or cold in energy production (power plants, LNG regasification)
Regulatory complexity	☐	☐	☐	☐	☐
Infrastructure-related barriers (e.g. access to district heating)	☐	☐	☐	☐	☐
High initial investment	☐	☐	☐	☐	☐
High operational costs	☐	☐	☐	☐	☐
High financing costs	☐	☐	☐	☐	☐
Insufficient return on investment	☐	☐	☐	☐	☐
Administrative barriers	☐	☐	☐	☐	☐
Technical barriers	☐	☐	☐	☐	☐
Barriers related to skills	☐	☐	☐	☐	☐
Insufficient awareness or trust in solutions	☐	☐	☐	☐	☐
Lack of fit-for-purpose or easily available technologies	☐	☐	☐	☐	☐

Other (please specify/develop)

200 character(s) maximum

Part C - Policy options

* 1. According to you, what are the **priority EU policy framework options** to accelerate affordable decarbonisation of heating and cooling?

Maximum 3 selection(s)

- [x] Implementation of the current EU regulatory framework
- [x] Additional public financing
- [ ] Additional policy initiatives (non-regulatory) including guidance on implementation of existing legislation
- [ ] Simplification of current legislative framework (towards 2030)
- [x] New legislative framework (towards 2040)
- [ ] N/A

Please specify or complement if needed

200 character(s) maximum

ETS2 will affect fossil heating and that must be enforced rather than watered down. CCUS technologies are also a means to decarbonise heating and cooling, which should be noted in the strategy.

2. Which regulatory or administrative barriers in the existing EU legislative framework need to be removed, and which incentives need to be strengthened or removed to accelerate affordable decarbonisation of heating and cooling and to simplify procedures?

500 character(s) maximum

Legislation should be more technology-neutral and encourage sector integration and energy system resilience. Administrative burden for, in particular, SMEs could be reduced. Incentives for carbon negative heating should be introduced via ETS schemes.

* 3. According to you, what are the **priority energy system design options** to accelerate affordable decarbonisation of heating and cooling?

Maximum 3 selection(s)

- [ ] Integrated planning of electricity, gas and heat infrastructure at EU level (including decommissioning of the gas grid or transitioning to renewable gases)
- [ ] Integrated planning of electricity, gas and heat infrastructure at national level
- [ ] Mapping of heat sources and demand at national level
- [ ] Mapping of future cooling needs
- [x] Integrated planning of electricity, gas and heat infrastructure at local level
- [ ] Stronger integration of cooling in urban planning
- [ ] Support (in the form of guidance/financial assistance/technical assistance) to the implementation of local heating and cooling plans in line with Article 25 EED
- [ ] Cooperation between electricity grid operators and efficient district heating and cooling systems
- [ ] Planned gas infrastructure decommissioning
- [x] Promotion of efficient district heating and cooling
- [x] Enabling waste heat recovery e.g. through sectoral programmes in data centres, supermarkets, large commercial buildings etc.
- [ ] N/A

Please specify or complement if needed

200 character(s) maximum

Enabling bioenergy must be an integral part as it can provide flexibiity and energy system cost-efficiency while laying a basis for a carbon-negative energy system.

* 4. According to you, what are the **priority options related to innovation** to accelerate affordable decarbonisation of heating and cooling?

Maximum 3 selection(s)

- [ ] Incentives for manufacturers of clean heating and cooling appliances and systems
- [ ] Obligations on manufacturers of clean heating and cooling appliances and systems
- [ ] Incentives for installers of clean heating and cooling appliances and systems
- [ ] Obligations on installers of clean heating and cooling appliances and systems
- [ ] Promotion of long-term contracts (heat purchase agreements)
- [x] Promotion of de-risking schemes for efficient district heating development

- [ ] Promotion of third-party services in efficient district heating and cooling or industry
- [ ] Promotion of model public-private partnerships for waste heat reuse in district heating
- [x] Promotion of replacement schemes or social leasing for clean heating appliances
- [x] Promotion of business models that integrate financing and increase installations of clean heating appliances
- [ ] Promotion of renewable energy communities
- [ ] Rewarding of non-fossil flexibility in electricity markets
- [ ] Support to manufacturing of clean heating and cooling technologies
- [ ] N/A

Please specify or complement if needed

200 character(s) maximum

We already have ETS1 and soon also ETS2. Replacement of old inefficient biomass appliances should be a priority, since it gives energy efficiency gains and reduces air emissions.

* 5. According to you, what are the **priority options to ensure affordability, just transition and consumer empowerment** in the context of the decarbonisation of heating and cooling?

Maximum 3 selection(s)

- [x] Financial incentives to cover upfront investment costs
- [x] Innovative services offer (heat as a service, social leasing of heat pumps, energy performance contracts)
- [ ] Regulated heat tariffs in efficient district heating or clauses to protect vulnerable consumers from raising heat costs
- [x] Early involvement in heating and cooling plans at local level and in decision-making in relation to collective heating and cooling
- [ ] Public awareness campaigns on the benefits of efficient, clean heating and cooling solutions
- [ ] Regulatory measures (e.g. minimum energy performance standards for heating and cooling systems)
- [ ] Promotion of one-stop shops

- [ ] N/A

Please specify or complement if needed

200 character(s) maximum

*6. According to you, what are the **priority options for affordable and efficient space cooling**?

Maximum 3 selection(s)

- [ ] Awareness raising
- [ ] Reduction of the need for cooling (urban heat island effect), acting at urban level
- [ ] Better integration of cooling, including passive cooling, in urban planning
- [ ] Accelerated deployment of air conditioning and reversible heat pumps in priority buildings
- [ ] Stronger promotion of passive cooling (shading, ventilation etc) and hybrid cooling (passive plus active cooling) in buildings
- [ ] Permitting and administrative simplification
- [ ] Connecting cooling demand with cold sources (eg geocooling, waste cold, cold waters), including via district cooling
- [ ] Focus on vulnerable households
- [ ] Focus on public buildings
- [ ] Reinforcement of electricity infrastructure to better cope with increased power demand for cooling
- [ ] Development of demand-side flexibility services in cooling (good match of cooling demand and PV production peaks)
- [ ] Address barriers to cooling equipment in outdated building safety codes
- [x] N/A

Please specify or complement if needed

200 character(s) maximum

Bi-directional heating and cooling networks.

*7. According to you, what are the **priority options to accelerate the affordable deployment of geothermal energy** ?

Maximum 3 selection(s)

- [ ] Specific targets for geothermal
- [ ] Awareness raising
- [ ] Adaptation of mining codes
- [ ] Adaptation of water regulatory framework
- [ ] Permitting and administrative simplification
- [ ] Financial guarantees (de-risking)
- [ ] Policies to increase data availability
- [ ] Support to public acceptance
- [x] N/A

Please specify or complement if needed

200 character(s) maximum

*8. According to you, what are the **priority options to accelerate the affordable deployment of solar thermal energy?**

Maximum 3 selection(s)

- [ ] Specific targets for solar thermal
- [ ] Awareness raising
- [ ] Adaptation of regulatory framework
- [ ] Permitting and administrative simplification
- [ ] Financial guarantees (de-risking)
- [x] N/A

Please specify or complement if needed

200 character(s) maximum

*9. According to you, what are the **priority options to accelerate the affordable deployment of waste (excess) heat and cold recovery?**

Maximum 3 selection(s)

- [ ] Awareness raising
- [ ] Technical support

- [ ] Financial advice
- [ ] Targets for heat and cold recovery
- [ ] Adaptation of regulatory framework
- [x] N/A

Please specify or complement if needed

200 character(s) maximum

Contact

ENER-B2-SECRETARIAT@ec.europa.eu