

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
- Finnish
- French
- German
- Greek
- Hungarian
- Irish
- Italian
- Latvian
- Lithuanian
- Maltese
- Polish
- Portuguese

- Romanian
- Slovak
- Slovenian
- Spanish
- Swedish

* 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

Alexis

* Surname

Kuhl

* Email (this won't be published)

alexis.kuhl@europanel.org

* Organisation name

255 character(s) maximum

European Panel Federation

* 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.

572064811767-22

* 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.

- | | | | |
|---|--|--|--|
| <input type="radio"/> Afghanistan | <input type="radio"/> Djibouti | <input type="radio"/> Libya | <input type="radio"/> Saint Martin |
| <input type="radio"/> Åland Islands | <input type="radio"/> Dominica | <input type="radio"/> Liechtenstein | <input type="radio"/> Saint Pierre and Miquelon |
| <input type="radio"/> Albania | <input type="radio"/> Dominican Republic | <input type="radio"/> Lithuania | <input type="radio"/> Saint Vincent and the Grenadines |
| <input type="radio"/> Algeria | <input type="radio"/> Ecuador | <input type="radio"/> Luxembourg | <input type="radio"/> Samoa |
| <input type="radio"/> American Samoa | <input type="radio"/> Egypt | <input type="radio"/> Macau | <input type="radio"/> San Marino |
| <input type="radio"/> Andorra | <input type="radio"/> El Salvador | <input type="radio"/> Madagascar | <input type="radio"/> São Tomé and Príncipe |
| <input type="radio"/> Angola | <input type="radio"/> Equatorial Guinea | <input type="radio"/> Malawi | <input type="radio"/> Saudi Arabia |
| <input type="radio"/> Anguilla | <input type="radio"/> Eritrea | <input type="radio"/> Malaysia | <input type="radio"/> Senegal |
| <input type="radio"/> Antarctica | <input type="radio"/> Estonia | <input type="radio"/> Maldives | <input type="radio"/> Serbia |
| <input type="radio"/> Antigua and Barbuda | <input type="radio"/> Eswatini | <input type="radio"/> Mali | <input type="radio"/> Seychelles |
| <input type="radio"/> Argentina | <input type="radio"/> Ethiopia | <input type="radio"/> Malta | <input type="radio"/> Sierra Leone |
| <input type="radio"/> Armenia | <input type="radio"/> Falkland Islands | <input type="radio"/> Marshall Islands | <input type="radio"/> Singapore |
| <input type="radio"/> Aruba | <input type="radio"/> Faroe Islands | <input type="radio"/> Martinique | <input type="radio"/> Sint Maarten |

- Australia
- Austria
- Azerbaijan
- Bahamas
- Bahrain
- Bangladesh

- Barbados
- Belarus
- Belgium
- Belize
- Benin
- Bermuda
- Bhutan

- Bolivia
- Bonaire Saint Eustatius and Saba
- Bosnia and Herzegovina
- Botswana
- Bouvet Island
- Brazil
- British Indian Ocean Territory
- British Virgin Islands
- Brunei
- Bulgaria

- Fiji
- Finland
- France
- French Guiana
- French Polynesia
- French Southern and Antarctic Lands
- Gabon
- Georgia
- Germany
- Ghana
- Gibraltar
- 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

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- Netherlands
- New Caledonia
- New Zealand
- Nicaragua
- Niger
- Nigeria
- Niue

- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Georgia and the South Sandwich Islands
- South Korea
- South Sudan
- Spain
- Sri Lanka
- Sudan
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- Svalbard and Jan Mayen
- Sweden
- Switzerland

- Syria
- Taiwan
- Tajikistan
- Tanzania
- Thailand
- The Gambia
- Timor-Leste
- Togo

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- Burundi
- Cambodia
- Cameroon
- Canada
- Cape Verde
- Cayman Islands
- Central African Republic
- Chad
- Chile
- China
- Christmas Island
- Clipperton
- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Cook Islands
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Curaçao
- Cyprus
- Honduras
- Hong Kong
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Isle of Man
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- Italy
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- Japan
- Jersey
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kosovo
- Kuwait
- Kyrgyzstan
- Laos
- Latvia
- Norfolk Island
- Northern Mariana Islands
- North Korea
- North Macedonia
- Norway
- Oman
- Pakistan
- Palau
- Palestine
- Panama
- Papua New Guinea
- Paraguay
- Peru
- Philippines
- Pitcairn Islands
- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
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- Russia
- Rwanda
- Saint Barthélemy
- Tokelau
- Tonga
- Trinidad and Tobago
- Tunisia
- Türkiye
- Turkmenistan
- Turks and Caicos Islands
- Tuvalu
- Uganda
- Ukraine
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- United Kingdom
- United States
- United States Minor Outlying Islands
- Uruguay
- US Virgin Islands
- Uzbekistan
- Vanuatu
- Vatican City
- Venezuela
- Vietnam
- Wallis and Futuna
- Western Sahara
- Yemen

- Czechia
- Lebanon
- Saint Helena
Ascension and
Tristan da Cunha
- Zambia
- Democratic
Republic of the
Congo
- Lesotho
- Saint Kitts and
Nevis
- Zimbabwe
- Denmark
- Liberia
- Saint Lucia

* 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

The Commission will publish all contributions to this public consultation. You can choose whether you would prefer to have your details published or to remain anonymous when your contribution is published. **For the purpose of transparency, the type of respondent (for example, 'business association, 'consumer association', 'EU citizen') country of origin, organisation name and size, and its transparency register number, are always published. Your e-mail address will never be published.** Opt in to select the privacy option that best suits you. Privacy options default based on the type of respondent selected

* Contribution publication privacy settings

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

Anonymous

Only organisation details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published as received. Your name will not be published. Please do not include any personal data in the contribution itself if you want to remain anonymous.

Public

Organisation details and respondent details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published. Your name will also be published.

I agree with the [personal data protection provisions](#)

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.






<input type="checkbox"/> Decarbonisation
<input type="checkbox"/> Sustainability and environmental protection
<input type="checkbox"/> Energy security
<input type="checkbox"/> Competitiveness
<input type="checkbox"/> Public health
<input type="checkbox"/> Energy affordability
<input type="checkbox"/> Energy efficiency
<input type="checkbox"/> Addressing energy poverty
<input type="checkbox"/>

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

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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Infrastructure-related barriers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Other (please specify/develop)

200 character(s) maximum

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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Infrastructure-related barriers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
High capital cost	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
High operational costs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Other (please specify/develop)

200 character(s) maximum

Please note that the wood-based panels (WBP) industry processes are both below 200°C & between 200°C and 500°C.

*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

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

Other (please specify/develop)

200 character(s) maximum

The WBP industry supports affordable decarbonisation of heating and cooling but warns against burning valuable woody biomass better used for long-lived, low-carbon material applications.

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	<input type="checkbox"/>	<input type="checkbox"/>
Infrastructure-related barriers	<input type="checkbox"/>	<input type="checkbox"/>
High initial investment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
High operational costs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
High financing costs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Administrative barriers	<input type="checkbox"/>	<input type="checkbox"/>
Technical barriers	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient awareness or trust in solutions	<input type="checkbox"/>	<input type="checkbox"/>
Lack of fit-for-purpose or easily available technologies	<input type="checkbox"/>	<input type="checkbox"/>

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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Infrastructure-related barriers (e.g. access to district heating)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High initial investment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High operational costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High financing costs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient return on investment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Administrative barriers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Technical barriers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Barriers related to skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient awareness or trust in solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of fit-for-purpose or easily available technologies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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)

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

Please specify or complement if needed

200 character(s) maximum

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

* 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
- 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
- Promotion of efficient district heating and cooling
- 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

* 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)
- 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
- Promotion of replacement schemes or social leasing for clean heating appliances
- 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

*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)

- Financial incentives to cover upfront investment costs
- 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
- 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
- N/A

Please specify or complement if needed

200 character(s) maximum

*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
- 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)
- 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

N/A

Please specify or complement if needed

200 character(s) maximum

Contact

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