BRIEFING FOR COMMISSIONER KADRI SIMSON

MEETING WITH REPRESENTATIVES OF EUROHEAT & POWER
BRUSSELS, 15 MAY 2023, 14:00-15:00

SCENE SETTER

Upon their request, you will meet with representatives active in the District Heating and Cooling (DHC) sector.

DHC is a key technology for the decarbonisation of the heating and cooling sector and plays an important role in the green and digital transition.

On the 18 October 2022, the following associations signed a joint declaration, highlighting a 10-Point Plan to accelerate the EU heat transition:

- Euro Heat and Power,
- Bio-energy Europe,
- European Heat pump Association (EHPA),
- CEE Bankwatch,
- Solar Heat Europe,
- Energy Cities,
- European Geothermal Energy Council (EGEC),
- European Partnership for Energy and Environment (EPEE),
- COGEN Europe, and
- the European Biogas Association (EBA).

The “10 points plan” is attached to this briefing and summarised in the background.
Following the signature of the joint declaration (including 10-Point Plan), DG ENER prepared a reply, signed by you responding to the main elements of the declaration.

Most of the organizations gathered under the “10 points plan” rarely had the chance to present their views and follow up on the declaration to you and, therefore, very much appreciate meeting you.

**Participants**

- [ ] EPHA
- [ ] Cogen Europe
- [ ] Este Solar
- [ ] Energy Cities
- [ ] AGFW
- [ ] Solarheat Europe
- [ ] ; Cogen Europe
- [ ] Bankwatch
- [ ] Bioenergy Europe
- [ ] Euroheat and Power
- [ ] European Biogas
- [ ] danskfjernvarme
- [ ] EGEC
• Agree that Europe needs decisive actions in the heating and cooling sector. About 50% all the energy consumed today in the EU is used for heating and cooling. More than 70% of that is still based on fossil fuels, mostly natural gas.

• While the EU has made significant progress in increasing overall renewable electricity, renewable energy has made slow progress in the heating and cooling sector, from 17% to 23% over the 2010-2020 period.

• The Commission is actively working on addressing this challenge along several parallel tracks.

• The ‘Fit for 55’ package was designed to respond to the complex challenges listed in your 10-point plan in a synergetic way.

  o Energy efficiency,
  o Renewable energy deployment,
  o Circularity,
  o Building decarbonisation and renovation,
  o Development of modern efficient district and cooling,
Carbon and energy price signals,
Financing and public support, these are all addressed in legal and funding instruments that reinforce each other.

- As part of the REPowerEU Plan, the Commission proposed a massive acceleration, with new targets and faster and simpler permitting procedures for renewable projects and related infrastructures, such as district heating and cooling.
- With the support of Member States and Parliament, we are now seeing new laws being adopted along these lines.
- The new renewable energy target of 42.5% (in the provisional agreement on the revised RED) represents a doubling of our ambition towards 2030. It comes with dedicated, enhanced targets for renewable heating and cooling, renewables in district heating and cooling and renewables in buildings.
- Energy efficiency plays a vital role in the climate and energy ambitions. Politically agreed recast of the Energy Efficiency Directive (EED) renewed the
energy efficiency target and requires to reduce energy consumption by 11.7% by 2030.

- We are satisfied with the outcome of the negotiations of the EED and RED as they will ensure that both energy efficiency and renewable energy fully contribute to reaching the 2030 climate target.

- As regards the EED and its parts on heating and cooling, we welcome the provisional agreement by co-legislators to introduce local heating and cooling plans in large municipalities, planned regular updates of the national comprehensive assessments of the heating and cooling sector and a new definition of efficient district heating and cooling.

- The EED recast contains also a requirement that measures targeted to efficient district heating and cooling systems may not support new installations using fossil fuels, with the exception for the natural gas until the end of 2030.

- The Commission services will ensure swift implementation of the legislation agreed and work with the Member States to turn the plans into reality.
- The proposal for a recast of the **EPBD** includes provisions to ensure new buildings a zero emission buildings from 2030, tackle worst performing buildings and limit subsidies to the installation of fossil fuel boilers during renovation.
- Finally, we announced last month an **Action Plan to accelerate the deployment of heat pumps** – including large heat pumps for district heating. The action plan will bring together the industry, Member States and installers and aim to tackle several aspects of the problem, from skills to financing. A public **consultation will soon open and we look forward to your contribution**.
LTT 10-POINT PLAN AND SPECIFIC EC ACTIONS

1. Develop a **Heating and Cooling Strategy** to align with the Climate Law and energy security
   - EU financial risk-mitigation schemes
   - Other financing and regulatory instruments
   - To be streamlined across EU legislation
   - Support clear long term vision developed with MS/local authorities/stakeholders

   **EC response:**
   - The strategic alignment and streamlining is largely covered by the revised RED and EED and the EPBD proposal.
   - In general, the Commission has prioritised integration of sectoral strategies into horizontal strategies, such as ‘EU strategy on energy system integration’, adopted in July 2020. These allow a more holistic approach to policy design and implementation. With fragmented strategies, the communication of the Commission’s policy becomes more challenging.
   - The revised RED includes a set of new targets that will give a clear direction across the whole heating and cooling sector, including by:
     - **Strengthening and clarifying the annual target for the heating and cooling sector** and providing a comprehensive list of measures as general building blocks for national heating and cooling policies;
     - Increasing the **district heating and cooling target**;
     - Introducing a specific renewable **benchmark for energy consumption in buildings**.

   - Defensive on de-risking: *The demand for a financial risk-mitigation scheme is a key demand by the DHC and geothermal industries. The EIB has recently approached DG ENER to present its idea to work on a portfolio of products developed specifically for the DHC sector. This could be an answer to that demand.*

2. **Expand the scope of building renovations** to connect with RE and sustainable waste heat supply in cities
**EC response:**

- This is covered synergistically and in all relevant aspects under FF55:
  - Revised Renewable Energy Directive (RED): 49% RES target for buildings, inclusion of waste heat in the accounting of RES targets for heating and cooling and DHC;
  - Recast of the Energy Performance of Buildings Directive (EPBD): district heating to be part of national building renovation plans and strengthening the calculation methodology so the benefits of district systems are better recognised. In addition, broader provisions tackling building renovation and the worst performing building stock in particular, will facilitate the operation of efficient district systems by reducing demand and operating temperatures.
  - Recast Energy Efficiency Directive (EED)

3. Introduce **mandatory heat planning** for local authorities
   - REPowerEU should put stronger emphasis on local heat planning as emergency measures to identify locally available alternatives to FF in heating

**EC response:**

- The EED recast includes a specific obligation for the Member States to ensure adoption of local heating and cooling plans.
- This requirement covers around 1000 largest municipalities in EU

4. Provide **human resources fit for the challenge**
   - Smart financial incentives for re-training
   - Revision of vocational training legislation (new training categories for installers – RE elec and heat, fitters)
   - Dedicated aid schemes for local authorities under RPE/RRP

**EC response:**

- The new large-scale Skills Partnership for Renewables under the Pact for Skills (March 2023) aims to enable quality job creation and career paths in Europe and propose policy recommendations to advance skills development.
- Skills are also addressed in the strengthened certification and training provisions of the revised REDII, while complemented with similar provisions in the recast EED and EPBD.
- Skills will also be a key pillar of the upcoming heat pump Action Plan, where we will build on the lessons learnt from successful EU-funded projects.
5. Rethink the **financing framework for sustainable district heating**
   - Approval for RRF/RPE funding for heating should consider incremental transition of DH systems from FF to fully sustainable: modernization and decarbonisation of heating systems which still rely partly on FF should be deemed to comply with DNSH

**EC response:**

- Do No Significant Harm guidelines are strict on the support measures targeted to district heating to ensure well-targeted investments into carbon-free heat supply under the RRF
- Commission services have taken note of this proposal
- Member States have high interest in to develop and finance the investments in district heating under the RRF. Several cases have appeared, where our services need to look at the issue from various angles.

6. **Stop aid for fossil fuels** and redirect to efficient RE- and sustainable waste heat solutions
   - Phase out FF-only boilers
   - Redirect funds to RE/DHC investments

**EC response:**

- The proposed EPBD recast would require Member States to stop subsidizing installations of boilers burning fossil fuels and the presence of such installations in new buildings from 2030.
- Ecodesign implementing regulation proposal for space heaters is being reviewed; the setting of stricter ecodesign limits for heating systems at EU level as a second tier in 2029 was debated within the expert group on April 27; it would imply “2029 as an end date for ‘stand-alone’ fossil fuel boilers”\(^1\).
- With the provisionally agreed EED recast, several restrictions are planned for the investments and operation of the heat generation capacities using fossil fuels.

7. Establish a **level playing field on the heat market**
   - Expand ETS to correct current situation where efficient district solutions are made uncompetitive vs individual.

**EC response:**

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\(^1\) COM(2022)240
- This is addressed in the review of the EU emissions trading system, which aims to extend carbon signals to the building sector.

8. Incentivize the use of sustainable waste heat
- Develop contractual agreements and risk mitigation mechanisms

**EC response:**
- This is incentivised, among other things, in new provisions in:
  - the revised REDII (where waste heat can be counted against sectoral RES targets),
  - the recast EED with a clear trajectory for the transformation of district heating networks, and
  - the EPBD where the calculation methodology allows this type of benefits to be taken into consideration.
- Additional attention is highly relevant and can be addressed in a technical level. We are open for a collaboration in this field.

9. Fast track the deployment of RE heat and electricity
- Well adapted regulatory framework and financing instruments
- Dedicated renewable acceleration areas for heat and electricity sources, including close to urban districts

**EC response:**
- An emergency Council Regulation with targeted measures to accelerate permitting for specific renewable technologies (including large heat pumps) and types of projects with potential for short-term deployment is already in force.
- It also recognises the potential of combining power and heat technologies, with streamlined permitting for larger heat pumps installed by self-consumers whose own electricity production covers most of the heat pump electricity needs.
- In addition, a targeted amendment of RED on permitting addresses the issue in a comprehensive manner through spatial planning (including RES acceleration areas), simplification and shortening of procedures.

10. Adopt a holistic approach to building decarbonisation policies
- Additional metrics: CO2 equivalent, local sourcing of heat supply, life-cycle indicators
- Extend policies on buildings to broader objective of decarbonizing urban areas/ cities
- Level-playing field between on-site, nearby and system-wide solutions

**EC response:**

This promoted in the new national building renovation plans and their link with the national comprehensive heating and cooling strategies and decarbonisation strategies under the revisions of EPBD, EED and RED, all of which are to be further coordinated in the context of the Energy Union Governance.
DEFENSIVES

Permitting

Most of the bottlenecks in permitting are at MS level. How are you helping MS to overcome these? Will it be realistic for member states to implement the faster permitting procedures?

- The Commission Recommendation and Guidance that are part of the REPowerEU package aim to highlight the key permitting-related barriers but also showcase good practice solutions to overcome them. These are solutions that Member States can take already in the existing legal framework to accelerate and simplify permitting.
- This includes administrative deadlines, the use of one-stop-shops, and practices on spatial planning. If the Recommendation is implemented quickly, many barriers existing at the national level can be removed soon.
- To foster the exchange of good practices, the Commission has organised several peer-learning workshops and is setting up a Member State expert group on accelerating permitting for renewable energy projects. Concerning process-related barriers, such dialogue with Member States already started last year in the framework of the Single Market Enforcement Task Force.
- To support Member States in implementing relevant reforms, the Commission is making available technical assistance via the Technical Support Programme.

What are the (legal?) possibilities for companies to get their permits in the timeframe set out by the legislation?

- The Council Emergency Regulation is directly applicable. This means that the rules contained in the regulation have effect for all companies and individuals, as well as the national administration from the moment the Regulation has entered in force until the end of the period of its application. Therefore, the companies can rely on the provision of the Regulation directly before the national authorities, including the courts, for the cases which fall within the scope of the Regulation. For example, as regards the small-scale installations with a capacity of 50 kW or less, the permit is considered granted within 1 month from the application even if the permitting authority does not reply, and the applicant can claim the existence of a permit on the basis of the Regulation and the tacit approval of the authority.
- Therefore, during the temporary application of the Regulation, the companies and citizens can directly rely on its provisions and expect to receive the permits in the respective timeframes, and do not have to wait for further adoption of legal measures regarding the timeframes taken by the Member States, which is the case
for a Directive.
BACKGROUND

District Heating and Cooling (DHC) technology in the EU

DHC is a key technology for the decarbonisation of the heating and cooling sector and plays an important role in the green and digital transition with potential for:

- accelerating reduction of gas consumption,
- increasing uptake of renewables (e.g. solar thermal, geothermal)
- supporting system integration, with flexibility services through thermal storage capacity and increasing digitalisation
- recovering and reusing waste heat from industry, increasing energy efficiency and implementing circular approach.

District heating (DH) only represents 12% of the heat supply in the EU, the countries where this technology has been largely adopted (e.g. the Nordics) are among the best performers in decarbonising heating and cooling and were less vulnerable to the current gas/heating crisis.

In some EU Member States DH is well developed and central to their vision of a flexible, efficient and decarbonised energy system, while in others DH barely exists.

The penetration of renewables (RES) in heating and cooling differs significantly from country to country, from Sweden with 69% to Ireland with only 8%. Similarly, the RES in DHC systems alone, ranges from 2% in Poland to 68% in Lithuania (Toleikyte & Carlsson, 2021).

DHC technology outlook and competitiveness

The Clean Energy Technology Observatory (CETO) in its Industrial and District Heat and Cold Management in the European Union (europa.eu) reports that the share of RES and waste heat in DHC is expected to steadily increase, boosted by strengthened climate ambitions, improved competitiveness of RES technologies, as well as imminent energy security concerns, reducing dependence on gas.

DHC technology trends

- increasing digitalisation for optimization through Artificial Intelligence (AI) and digital twins
- lower temperature
- connecting to the wider energy system by:
  - providing flexibility services to the entire energy system through Thermal Energy Storage (TES): latent and thermo-chemical storage
– reusing waste heat, where the lower temperature level is giving more possibilities, boosted by heat pumps when needed.

Research and Innovation (R&I) needs highlighted by the Competitiveness Progress Report

- Digitalisation
- Thermal Energy Storage
- Low Temperature District Heating
- District Cooling

Euroheat & Power’s (EHP) role in R&I projects promoting DHC

Euroheat & Power has a long history mapping industrial waste heat in the EU by bringing more and more details and layers to the Heat Roadmap Europe, refining the EU thermal atlas which is an excellent tool for cities and communities for assessing the potential of waste heat in their respective region.

EHP was a key partner in the Celsius initiative tender together with the Swedish Johanneberg Science Park, the Research Institutes of Sweden (RISE) and Impact Management Consulting Group (IMCG). The initiative supported many interested cities in their endeavours to make their DHC more efficient, more flexible and smarter and increase the share of RES and recover waste heat. Some cities were supported for the planning of new systems. Cities teamed up to help each other with best practices and benefited from dedicated and tailor-made expertise provided by the Celsius team.

In the frame of the Celsius initiative EHP also mapped the EC support activities and projects on DHC: Advancing district heating & cooling solutions and uptake in European cities - Publications Office of the EU (europa.eu) gathering information from 2016-2022 on DHC projects and tenders financed under H2020 but also under previous programmes: Intelligent Energy Europe (IEE) and the 7th Research and Innovation Framework Programme (FP7). The 69 projects featuring in the brochure benefited from a total EU funding of 493 M EUR.

Maintaining the interesting outputs of the projects and boosting the replication potential of the demonstrated DHC solutions were another objective of the initiative. The Celsius toolbox, capturing the expertise, will help the Smart Cities Market place matchmaking process and will be available on the wiki to further support cities and communities in their quest for heating decarbonisation and for increasing security of supply using more local resources through DHC.

Net Zero Industrial Act (NZIA)
DHC technology development is expected to be boosted by the NZIA through the uptake of Solar Thermal and Geothermal technologies as well as Heat pumps and heat storage.

**The Net-Zero Industry Act**

- (1) will **facilitate investments**
- (2) will improve net-zero industries’ **access to markets**
- (3) will improve net-zero industries **access to a skilled workforce**
- (4) will **promote innovation**
- (5) will have a **governance structure** in the form of the Net-Zero Europe Platform

**The scope of NZIA**

- The scope of the Regulation is twofold:
  - (1) net-zero technologies and
  - (2) net-zero strategic technologies.

- (1) **Net-zero technologies** include renewable energy technologies; electricity and **heat storage technologies; heat pumps;** grid technologies; renewable fuels of non-biological origin technologies; sustainable alternative fuels technologies; electrolysers and fuel cells; advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle, small modular reactors, and related best-in-class fuels; carbon capture, utilisation, and storage technologies; and **energy-system related energy efficiency technologies.** They refer to the final products, specific components and specific machinery primarily used for the production of those products. They shall have reached a technology readiness level of at least 8.

- (2) The following eight technologies are **strategic net-zero technologies** that are key to decarbonising the Union’s industry and preserving it in Europe:
  - Solar photovoltaic and solar thermal technologies
  - Onshore wind and offshore renewable technologies
  - Battery/storage technologies
  - Heat pumps and geothermal energy technologies
  - Electrolysers and fuel cells
  - Sustainable Biogas/Biomethane technologies
  - Carbon Capture and Storage (CCS) technologies
  - Grid technologies

**The revision of the Energy Performance of Building Directive**

- The proposal for the revision of the EPBD was adopted by the Commission in December 2021. Council adopted its General Approach in November 2022 and the
European Parliament voted their proposed amendments in March 2023.

- The negotiations have started under the Swedish Presidency and we aim to complete them under the Spanish Presidency. The first trialogue will take place in early June and preparatory discussions at technical level have already started.
- In broad terms, the Council’s general approach significantly reduces the ambition of the EPBD proposal in the areas of minimum energy performance standards (which tackle worst performing buildings), energy performance certificates and zero emission buildings.
- The Parliaments amendments are more ambitious than the Commission proposal in a number of aspects, particularly on minimum energy performance standards. The amendments also introduce further elements on social aspects (e.g. greater visibility of energy poverty issues), sustainability and the broader benefits of efficient buildings (e.g. improved comfort and healthy living conditions).
ANNEX I

A 10-Point Plan to accelerate the EU heat Transition
(pdf attached)