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View on the upcoming heating and cooling strategy for Europe

The Finnish Energy Industries (FEI) is a trade organisation for production, supply, transmission, distribution and sales of electricity, district heating and district cooling, and for design, implementation, operation, maintenance and construction of networks and power plants.

This paper is to contribute the preparation of the heating and cooling strategy for the EU (the strategy).

As basis for this paper are: target to reduce CO2-emmissions by most competitive ways, wish for stable and predictable energy and climate policy as well as will to create customer oriented heating and cooling products also in the future. This paper is founded on Finnish expertise and superb results in district heating and cooling (DHC) business as well as in electric heating which balance electricity system and use CHP-electricity.

Evaluation of heating and cooling sector

First, the heating and cooling strategy should include a comprehensive evaluation of the heating and cooling sector in the EU. When there is no statistical or regulatory information available, the strategy should give a clear message to develop related information.

- A description of heating and cooling market in the EU and in different countries is an essential knowledge base for further policy making and legislation. Therefore, this must be done within the strategy work.
- Today's energy system models like TIMES model can't really recognize the full potential of regional or local district heating energy systems. Therefore the strategy should also push for the energy system model development.
- Many EU-level policies and regulations have direct or indirect influence on heating and cooling. Before new legislative initiatives, existing ones must be analyzed.
- In different countries the heating and cooling sector is regulated in various ways. The strategy should describe regulations in different countries.

Competitive heating and cooling market where customers have a freedom of choice

The heating and cooling strategy should describe the target for the liberalization of the heating and cooling market.

- Different heating and cooling forms should compete in heating and cooling markets with each other. Development of the heating and cooling market should be based on commercial merits of different solutions not regulation or subsidies.
- Heating and cooling customers may be individual persons, multi apartment buildings, service or public buildings or industrial actors. Customers should have freedom to choose heating and/or cooling solution. EU level or national policies should not force them to connect DHC-networks neither favor particular heating form over others.

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Regulation and subsidization of business tend to stagnate development

There are multiple business models and technological solutions to meet customers heating and cooling demands. DHC is one of them. In addition, DHC-systems are operated in different ways.

- The strategy may contribute the development of different technological solutions and various business models by removing barriers from them. In addition, steering support to research and development instead of operating subsidies would make sense.
- The single DHC-system operator model is considered the best in Finland. This is not stated in legislation and there is no need for such statement. The single DHC-system operator model combined with market liberalization drives actors to operate cost efficient way, use cost efficient heat sources and provide most competitive and long lasting solutions for customers.
- Relation between DHC-customer and DHC-company is defined in a commercial contract. These contracts develop together with products and customer needs.

Investments based on energy prices and CO2-prices

In the future, customers, DHC-companies or service providers' investments in heating and cooling should primarily base on energy prices and CO2-prices.

- The strategy should define how CO2-steering will be extended to the whole heating and cooling sector to create a level playing field with DHC and individual heating and cooling solutions.
- Regulated energy prices (electricity, fuels or DHC) should be removed where they still exist. The heating and cooling strategy could contribute this target.
- Welfare authorities are better trained and equipped to deal with vulnerable customers' problems than energy regulators and companies. A transition from regulated social pricing to market pricing supported by stronger welfare support through public bodies would benefit all stakeholders

Renewable energy through technology neutral policy measures

The strategy should state that all renewable energy must be equal regardless of producer, production location or production method.

- Renewable energy transmitted to buildings through a district heating network or an electricity network must be as valuable as the on-site production of renewable energy. This principle is vital for the efficient utilization of renewables at the city level. In addition, this should be taken into account in revisions of directives on the energy performance of buildings and renewable energy sources.
- Renewable heating, cooling and electricity can be produced in various ways. In different locations there are different sources and solutions available. Instead of policy makers, customers and companies developing competitive energy products should make technology choices.
- Biomass from forests is an important energy source for district heating and CHP. Biomass is renewable and carbon neutral energy source when it is produced in a sustainable way. Therefore it is important that acceptability of biomass is secured in future.

Energy efficiency in cost optimal way

Energy efficiency regulations must be based on cost optimization. The strategy should pay attention that most cost efficient energy efficiency measures would be made first.

- Primary drivers for energy efficiency should be market prices of different energy products and CO2-emmissions.
- Energy system is a unity. If there are energy efficiency regulations in place, they should take the whole system into account and shouldn't distort heating and cooling markets.

General competition legislation and consumer protection legislation instead of sector-specific

The heating and cooling strategy could motivate member states to develop general competition and consumer protection legislation and remove sector-specific legislation related to heating and cooling. In addition, market actors must develop terms and contracts on commercial and voluntary basis.

- When market share of DHC is dominant in certain geographical area or within a customer group, there is a need for general competition legislation not need for sector-specific regulation. The aim of such general legislation and related authorities is prevent possible misuse of dominant market position not just in energy business but in all kind of businesses..
- The rights and obligations of customers and companies are defined in contracts. When an individual consumer is a contracted party, there is a need for minimum level of consumer protection. Therefore, the basics of consumer protection are regulated by the general consumer protection legislation not in sector- specific regulation.

In above described heating and cooling market DHC and combined heat and power (CHP)-production can succeed

Combined heat and power production is a key technology in achieving climate and energy targets. In future, CHP will need both, competitive heat market as well as competitive electricity market. This paper describes first part of prerequisites – heat market. Another important aspect is a proper functioning of an electricity market.

Heating and cooling are local activities

In member states and different cities there are various operating environments. Variation starts from the availability of heat sources and fuels, existing policies and regulations ending to heating and cooling demands and customers. Considering this, the EU should focus on policy which is flexible for customers, market actors and member states. Flexibility for member states is extra-important if the EU will introduce additional regulation which does not support the liberalization of heating and cooling market.

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