EGEC POLICY RECOMMENDATIONS FOR A
SECURE, COMPETITIVE, SUSTAINABLE ENERGY UNION

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EGEC is committed to actively support a transition to an energy policy which is fair to all EU citizens, provides a level-playing field for all actors across the EU, and aims at efficiency, sustainability, security and conservation of the local and world-wide environment.

In the framework of the debate over the EU Energy Union, the European geothermal industry puts forward a number of recommendations for each of its pillars.

1. **Supply Security, Based on Solidarity and Trust**

Energy security is a concern at all levels, EU, national, regional, and local. Regional and local solutions should be explored and valorised. The current energy security crisis is essentially a heat crisis: 25% of natural gas is being used in power plants whereas 41% is being used for the heating of buildings and 31% for industrial processes. Without fuel switch in this sector, including through high-efficiency cogeneration, the EU will be locked in imported fossil fuels and related infrastructure for decades.

Geothermal energy is available around the clock, can be used to produce combined heat and power, distributed through district heating or harnessed through heat pumps. It is not affected by weather conditions or by price volatility like fossil fuels and does not imply reliance on external suppliers. As it is a local source of energy, its further market uptake can improve security of supply at regional level, stabilise energy prices for households and industries alike, and contribute to local and sustainable economic growth.

- **A broader and deeper deployment of indigenous and reliable European renewable energy sources**, including through high-efficiency cogeneration and together with improved energy efficiency, will be the most effective way to improve the EU’s energy supply.

- In the upcoming revision of regulation (EU) 994/2010 on security of gas supply, **Member States should be required, as part of their Preventive Action Plan, to establish a strategy to promote the switch, including in district heating, from gas to renewable energy sources** such as geothermal, biomass, and solar thermal. This strategy should be in support of their National Renewable Energy Action Plan and Article 14 (promotion of efficiency in heating and cooling) of Directive 2012/27/EU.

- **Diversification of gas suppliers alone will not solve the problem**, but risks to shift dependency from a single to a limited number of unstable countries.

- **Wild electrification of the heat sector** will shift the heavy dependency from a limited number of suppliers to a single energy carrier that, with increased variable generation, **intensifies the risks of blackouts** and is more costly.
2. A COMPETITIVE AND COMPLETED INTERNAL ENERGY MARKET

The internal energy market today is not complete as it is limited to electricity and gas. Similarly, infrastructure development is only promoted in these two sectors. Overall, this is limiting the impact of the EU energy policy.

- The EU should explore initiatives to tackle market-distorting practices, including in the heat sector, to ensure that alternative renewable technologies and new market entrants can compete on a fair-playing field with conventional technologies. In this regard, regulated prices for gas should be urgently phased-out.

- Priorities in terms of infrastructure should not be limited to large pan-European projects, but also facilitate the development of local heat distribution and an integrated smart grid infrastructure. Investing in additional gas infrastructure will increase overcapacity and lock-in fossil fuels in the EU’s energy mix. On the other hand, investing in local, smart, and integrated infrastructure will show a long-sighted vision and deliver tangible results in terms of competitiveness and affordability.

3. MODERATION OF DEMAND

- The residential and non-residential building sector has enormous potential for energy savings, greenhouse gas emissions reduction and for the integration of renewables. Policies such as eco-design, energy labelling, and nearly zero energy buildings are extremely important to inform the consumer and to develop a market towards more efficient and sustainable buildings. However, most of current of the current policies are limited to new constructions and existing buildings undertaking major renovations representing a very limited share of the building stock. The revision of existing legislation should therefore address renovation at large and, in line with Article 13(4) of Directive 2009/28/EC establish a minimum requirement of renewable energy in buildings.

- It is of the utmost importance to avoid a dogmatic preference for energy efficiency even when its marginal cost is higher than supplying renewable energy instead. Such an approach may lead to a lock-in and achieve sub-optimal results. The objective of moderating energy demand should therefore be coupled with fuel switch to locally available and renewable energy sources.

4. DECARBONISATION OF THE EU ENERGY MIX

In order to decarbonise the energy mix, the EU needs a wide range of renewable technologies, including geothermal for power and heat generation.

- The European Commission should firstly ensure an in-depth assessment of the implementation of the existing legislation, including of Article 13-14 of the Renewable Energy Directive.
- As market failures hampering the development of alternative renewables persist, more efforts should be done to investigate over market-distorting practices including in the heat sector, and internalise the external costs of fossil fuels used in small scale installations.

- Geothermal and other dispatchable technologies can facilitate grid management and ensure a smooth and balanced energy transition. The revision of the Renewable Energy Directive should promote a market design awarding the availability and firmness of dispatchable renewable technologies in the power sector.

- EU and national policies should avoid at all costs a “one-size fits-all” approach. In other words, policies should better take into consideration the different maturity levels, barriers as well as risk profiles of different renewable energy technologies. Over the last few years support schemes were very much focused on some technologies only. Substantial support led to a cost reduction of these technologies.

For comparison, in 2012 geothermal technologies were allocated €70 Mio, while €14.7 bn went to the solar sector, €10.1 bn to both on-shore wind and coal, €7 bn to nuclear and more than 5€ bn for gas. Due to the disparities of the recent past, there is no condition to apply a “technology-neutral” approach, including for allocating support via auctioning as provided by the standard rule under the 2014 Guidelines on State aid for environmental protection and energy.

5. Research and Innovation

The European Commission has affirmed its objective of making the EU the world number one in renewable energy. Europe is already the leader in terms of geothermal heat pumps and district heating installed and is also leading in innovation such as in underground thermal energy storage, with the main competition coming from China and the USA. Last but not least, Enhanced Geothermal System (EGS) plants for electricity, CHP, or heat, are so far only in operation in Europe, whereas research projects are on-going in the U.S. and Australia.

The EU should continue supporting technological development in geothermal technologies to ensure that Europe retains its status as a world leader in the manufacturing and design, reinforcing its main competitive strengths. The full commercialization of EGS will provide Europe with a breakthrough technology able to produce power and heat 24 hours a day, independently from whether conditions, technologies.

- Compared to the past, more attention should be paid to the energy system as a whole, to the development of smart thermal grids and to technologies able to decarbonise the non-ETS sectors.

The EU should avoid a focus only on large projects and on limited technologies on the basis of the LCoE method without taking into account system costs and externalities.