



## An energy system that is more resource efficient and climate neutral – but how? Some answers from Finnish key actors

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**Abstract** [Full text available in Finnish, see: <https://el-tran.fi/analyysit/>]

The shift envisaged in Finland's 2014 energy and climate road map towards a more resource-efficient and climate-neutral energy system<sup>1</sup> is a breakthrough affecting the whole of society. Each one of us can be part of this change. For example one can become a small-scale producer of renewable electricity or heat, set up an energy co-operative, change one's consumption habits, improve energy efficiency in the home or reduce one's climate footprint in traffic. However, all these choices are influenced by certain key actors as decision-makers, watchdogs and opinion leaders. Such actors are above all public administration, companies in the field of energy (among others those producing and distributing electricity and those producing equipment and

offering solutions) likewise watchdogs and citizens' organizations focusing in one way or another on energy issues.

The EL-TRAN Consortium ascertained how Finnish key actors look at the development of Finland's energy system as we move towards 2030, a year which constitutes a natural time horizon since Finland's energy and climate strategy due to be launched in 2017, also extends up to 2030. At the EU level, too, fairly general targets have been set which also concern Finland as outlines in *EL-TRAN policy brief 4/2016*.

In this analysis we use Q methodology to ascertain the views of key actors. Specifically we derive from the policies and solutions the key actors deem meaningful points of departure for the further development of Finland's energy system with special reference to the country's energy and climate strategy with an eye to 2030. If and when the energy transition pursued in Finland's new strategy affects the whole of society and thus all the main actors in the energy system, we need to know which issues are divisive and which are unifying. Only in this way can we implement a realistic energy policy.

The energy transition will clearly affect the interests of different actors in different ways, for example by challenging the business models of certain established actors in the energy field. It can thus be assumed that there will be variation in the actors' attitudes to the energy transition. However, our results show that various actor and interest groups are not unambiguously aligned solely to promote their own interests. We found three distinct viewpoints, each of which was supported by actors of different types. The first of these emphasizes competition in the international energy markets and between different production methods alongside the need for intelligent networks. The second for its part concerns the importance of the role of ordinary people as responsible energy consumers and as small-scale energy producers. The third viewpoint stresses national competitiveness and hopes to see Finland's energy system become more reliant on local resources and self-sufficient.

*production*, end products such as electricity and heat (and cold) and *consumption*.

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<sup>1</sup> By energy system we refer here to the interacting entity formed by the network conveying energy

What these viewpoints have in common is the notion inculcated among the key actors that from now on the energy system needs to be developed within the framework conditions set by the climate objectives. In spite of the certain amount of variation in the means for achieving such objectives, our research also revealed certain factual issues on which the key actors were relatively unanimous. 'Polluter Pays' was considered the guiding principle in the further development of the energy system. Thus attitudes towards subsidizing the building of power plants using fossil fuels, for example, were negative. The role of natural gas in Finland's future energy system was not anticipated to be prominent in spite of its important position in the energy policies of numerous countries in Europe, especially in the production of heat. On the other hand heat pumps were anticipated to afford opportunities for the effective utilization of resources. Another important consideration was to permit distribution system operators to use energy storages as part of their network business activities.