Directorate General for Energy and Transport
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Important issues regarding the EU-commissions proposal for heating boilers (EcoDesign Lot1), Working document

SBBA is the Swedish organization for manufacturers of oil, gas, electrical and bio-energy boilers. Some of the companies also produce heat pumps and water heaters.

We understand that the EU-commission is planning to prohibit electric heating boilers to be sold (at least as a single component). From a Swedish perspective this will lead to several constraints, for example from a climate and consumers perspective. The time to review the document has been very short but here is our best description of the issue and our most constructive suggestions for solutions. We have also delivered these points of view before (February 2008).

We believe that (please read more details below):

1) Electrical boilers should be (as the working document suggests) allowed to be sold as a part of a package. However several clarifications are needed regarding this.

2) Electrical boilers must be able to be sold, delivered and installed as a single unit to replace existing electrical boilers.

Why is this proposal questionable from a Swedish perspective?

1. **Practical reasons:** The alternatives to an electric boiler in Sweden are less than in the rest of Europe, we do have very little infrastructure for gas in Sweden. It is also so that the Swedish authorities and politicians, due to climate change reasons, for a long time now has been trying to phase out oil boilers with different taxes and other measures. So oil is basically not an option and it is unlikely that this would change. Alternatives left then are wood pellets, firewood, solar or heat pumps which all are normally good alternatives. But in some cases it isn't possible to install ground source heat pumps or for practical building space reasons it is not suitable with firewood, pellets or solar. Then an air-water heat pump is the only alternative, and they very often need to be supported by an electrical boiler, especially in the cold Swedish climate.

   Another practical aspect is that for all the houses, hotels, summer cottages etc that today has an electrical boiler only as a heating source, they need to be able to get the boiler replaced quickly in case of a breakdown. They can not wait for a boiler room to be built or a ground source heat pump to be drilled. In these cases an electrical boiler must be able to be installed as a "single unit" and not as a part of a package. At least as a temporary solution.

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2. **Consumer economical and financial reasons:** For a large quantity of houses and buildings in Sweden it is possible and economically reasonable to install other alternatives than an electric boiler or an electrical boiler in combination with an alternative, often being a both more climate friendly and energy efficient solution. Our member companies sell these alternative products. But for a smaller portion of houses the alternatives to electric boilers would be expensive for the consumer in comparison to the (in Sweden questionable) environmental benefit. We especially think about houses where small amounts of energy is used for heating , for example summerhouses. If an electric boiler in a summerhouse breaks down, it does not seem reasonable that you should have to install a more expensive alternative in a house that is in use only for a short period of time. One should also know that for a large portion of these buildings it demands an investment in the building itself to convert from an electric boiler. It concerns installation of a chimney for combustion boilers and for heat pumps often a new radiator systems has to be installed.

3. **Climate change reasons:** In Sweden we produce a good bit over 90% of the electricity[1] without letting out carbon dioxide. To warm up a house with electricity in Sweden can therefore be seen as a better choice out of climate perspective than to warm it with gas or oil. To prohibit electricity and then at the same time allow gas or oil makes therefore this proposal questionable from a Swedish perspective. We are well aware that there are different electricity mixes to use when calculating this. We are also aware of the overall European perspective on this.

One should take into consideration that, according to consultant study for Lot 1, only 1% of Europe's installed boilers are electric boilers. In Sweden that figure is over 30 %[2]. Within EU, over 70 % of the boilers are gas boilers, they are around 1 % in Sweden. So a prohibition for electrical boilers affects Sweden, both consumers and producers, much more than other countries. Only Sweden and Great Britain has electrical boilers in any numbers to speak of.

We understand that it is very important to take the threat of climate change seriously and that the heating of houses is done in an effective and climate smart way. Important is also that the society chooses the most cost effective measures. Our member companies have been supplying Swedish and international households with alternative energy solutions for many years. We see ourselves as pioneers in this field.

Our suggestion

Most of all we would like efficient electrical boilers to be able to be sold freely as the other boiler types, but given the need to increase energy efficiency and reduce CO2 we can see that that would lead to problems in most other European countries. We therefore propose the following changes in the commission proposal:

[1] Energiläget 2007, Energimyndigheten/Swedish Energy Agency page 30
[2] Excluding Solid Fuel boilers

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1) Electrical boilers should be able to be sold as a part of a package, as is in the Working document right now. But the working document must **define more specifically how this can be regulated**. Electrical boilers are sometimes produced by one company and heat pumps (or any of the other complementary parts of the package) are produced by another company. These products are sold to wholesalers, an installer buy the equipment and put it together at the customers house.

It must also specify how the electrical boiler part of the package can be replaced if it breakes down. The consumer should not have to by a new "full package" if the other components are working.

2) **Electrical boilers should able to sell as individual units to be installed as replacement for old (single standing) electrical boilers**. This should not be a problem since only 1 % of the boilers are electrical boilers and the market will in time replace most of these with heat pumps, pellet or solar since they are economically better options for most of the dwellings. This could be regulated in the EPB-directive which could prohibit installation of electrical boilers in new houses.

If it is seen as necessary to regulate to avoid the risk that electrical boilers will compete out other alternatives, such as gas or oil boilers in existing European houses, one or several of the following solutions could be considered as ideas. However they are jus ideas and would need to be examined for feasibility:

a) A sign on the boiler saying that it can only be installed as replacement (or as a part a package).

b) Electrical boilers should able to sell as individual units to replace existing electrical boilers as long as the house owner complements with a renewable alternative within a certain specified limit of time. This might require some notifying procedure to the authorities for them to be able to follow up.

c) Electrical boilers are able to sell as individual units until 2020. Until then there should be a subsidiary for people replacing their electrical boiler with a renewable alternative or combining their existing electrical boiler with an alternative. It is very important that this subsidiary scheme is very well defined, guarantees that it will last the whole period of time and that the amount of money that is received if foreseeable.

These are preliminary ideas which need to be discussed with among others the Swedish authorities, but this has not been possible due to the short time available.

We have also proposed that the Swedish Energy agency immediately should do a quick investigation regarding what the consequences are for the Swedish households and industrial companies. A cost /benefit analysis of the proposal is needed.

We are looking forward to a continued dialog concerning this matter.

SBBA, Swedish heating Boilers and Burners Association
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