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## Public consultation on potential candidates for substitution

*Swedenergy is a non-profit industry and special interest organisation for companies that supply, distribute, sell, and store energy. Mainly electricity, heating, and cooling. Swedenergy monitors and promotes the interests of its members and the Swedish energy sector in general. The organisation has a total of 400 members, which includes state-owned, municipal, and private companies as well as associations within the energy sector.*

Swedenergy suggests that before decision on phasing out creosote studies on environmental impacts of substitutes substances or materials must be done in order to avoid unknown risk of negative environmental and climate impact.

Poles used for electric power transmission represent a safety-critical use where confidence in performance and long service life is important. In the event of major power grid interruptions, there is a need of supply of larger volumes of poles for electric power transmission that must be met by the market. If creosote is banned without reasonable alternatives, it can cause major delays in rebuilding after power grid disruptions, leading to significant impacts on citizens life quality as well as functioning of Swedish industry. Energy supply through a robust and reliable power grid is also an important component of energy conversion to achieve Swedish and EU-union energy and climate goals. Other products with better and well-known climate and environmental characteristics than creosote must be available at a ban.

The Swedish Chemicals Agency has done comparative assessment of creosote versus other wood preservatives, other materials or techniques (2016). See below final conclusions from the assessment:

- 1. There are so far no suitable wood preservatives in Sweden, which have been authorised under BPR or BPD, for protection of wooden poles to be used for electric power transmission and telecommunications. A comparison according to Tier I-B is not possible since there are no products containing creosote that have been authorised under BPR or BPD."*
- 2. Alternative poles which may have the potential to substitute creosote treated wooden poles are not economically reasonable or are not yet sufficiently tested in Sweden. Poles used for electric power transmission*

*and telecommunication represent a safety-critical use where confidence in performance and long service life is important.*

- 3. The submitted LCA:s do not give a coherent picture of which of the alternative material or creosote treated wood has the least negative impact on the studied environmental and health factors. The analysis shows that there are no appropriate alternatives in Sweden to creosote products for this use. This use should therefore not be prohibited or restricted based on this comparative assessment and the specific provision for creosote.*

Thus, the prohibition of creosote products for use as protection of wooden poles for electric power transmission could lead to significant economic or practical disadvantages for end users.

We wish that ECHA presents which alternatives (substances or materials) are accessible at the market and invite us and other stakeholders to share experiences on how these alternative substances or materials have been working from LCA perspective. Furthermore, it is important to investigate if the alternative materials have adequate lifetime, are feasible at Swedish climate, especially in northern Sweden and are economically feasible.

After investigation, ECHA should present a timetable for when termination of creosote should take place and sales should be banned, followed by a waiver period until final total ban.

ECHA should also clarify what disposal and use of existing stocks means (among others stocks of poles used for electric power transmission) and what happens if a company wants to reuse their existing poles in a new project or replace them within existing plants, perform repairs, etc.

Since we ourselves are not producers of chemical substances or conduct advanced research at substance level, our only option is to turn to the registered products offered by the market and choose from them the alternative that is best suited to our areas of application. As end users of creosote impregnated wood products, we are, besides the chemical and toxic properties, also interested in alternative substances compared to creosote with respect to the environmental impact of substitutes. A life cycle analysis could answer some of the relevant issues we see, for example evaluating the effects of different substances considering the environmental impacts, climate impacts and economy.

In energy sector there are also some opportunities to use alternative materials, not just alternative chemical impregnates. It is in our interest to compare substances with materials through a life cycle perspective. For instance, alternative material such as concrete are heavy, needs more energy for transportation and have sometimes much less lifetime at cold climate as we have in Sweden.

Swedish Environmental Research Institute (IVL) has previously performed a study in which they have compared creosote poles to other materials among others wood poles impregnated with other substances, wood poles covered by plastics,

composite poles of different kinds, concrete and steel. This study did not give a coherent picture of which of the alternative material or creosote treated wood has the least negative impact on the studied environmental and health factors.

In co-operation with IVL, Swedenergy has started a further study for comparison of some alternative materials and substances. This study will be finalised during 2020 and will be published at IVL's homepage [www.ivl.se](http://www.ivl.se). Primary results show that concrete is not a good substitute for Swedish environment because of high weight which cause difficulties for transport in Swedish landscape, may damage soil, and cause other issues such as need of more energy for transport and installation.

You can find the previous LCA-analysis for wooden pools and other materials performed by IVL at the following page:

<https://www.ivl.se/toppmeny/publikationer/publikation.html?id=3003>