

## **All EU political groups and representants in the EU-parliament And all swedish political parties.**

We hereby thank the groups who answered our "Information and inquiry" paper of 2019-03-20. We can note that several party groups have clear insights on the IPCC report's message, that a necessary mix of renewable technology and nuclear power technology, is required to achieve the climate goals.

Some groups express a clear desire to increase support for research and duplication of financial support for the expansion of new nuclear power technology. Primary arguments are to reduce dependence on own fossil power and import of Russian natural gas. Here is a trend of increased insight into serious climate and safety strategic risks.

We realize that the EU's starting point is long, time is short and that other economies are far ahead. However, it is extremely alarming that our scientific evidences of the risks associated with the modern wind turbines' strong emission of infrasound and ground vibrations are not taken seriously. These emissions are already serious threats to people and the environment, and can lead to implosion of healthcare systems, ecosystems, agriculture and forestry.

The missing or vaguely formulated answers indicate that these issues have long been uncomfortable and swept under the carpet. We interpret it as a partially widespread silence and denial culture in some political EU groups.

We note a general ignorance of the scientific evidence of the cumulative effects on:

### **Public health**

The inaudible pulsating air shocks strike the brain, heart and internal organs. Example:

- moderated brain and respiratory activity (Cezary Kasprzak, AGH University, Krakow)
- impaired heart muscle capacity (20 %, Cristian-Friedrich Vahl, University of Mainz)
- pathological changes in heart sac, lungs and blood vessels (Alves-Pereira, et al., Lisbon University)
- relationship between suicide and wind power establishment (<25 km, Eric Zou, Illinois University)
- impaired cognitive abilities in children, risks in pregnancy etc.
- insomnia that leads to fatigue, nausea, dizziness, anxiety and decreased concentration.

### **Climate**

- vibrations increase the formation of carbon dioxide and methane in wetlands. Peat layers are compressed, groundwater is extruded and the biologically stored carbon is oxidized.
- vibrations compresses the humus layer in woodland and blocks the ability of mycorrhizal fungi to bind carbon and add nutrients from dead plants. The fungi live in symbiosis with coniferous trees and are of great importance for the carbon balance on our planet, which in turn has a decisive influence on the greenhouse effect. Symbiosis occurs when fungal threads grow out of the root of the plant and branch out into large intricate networks called mycelium. The fungus enters the root of the plant where it can get carbohydrates from the plant. At the same time, the fungus helps the plant to absorb water and important nutrients. Compressed woodland diverts more rainwater.
- vibrations are transmitted to trees and plants, which strengthen the root systems at the expense of growth in stems, branches and foliage. Less absorption of carbon dioxide.
- massacres of bats and birds cause increased insect damage in agriculture and forestry.

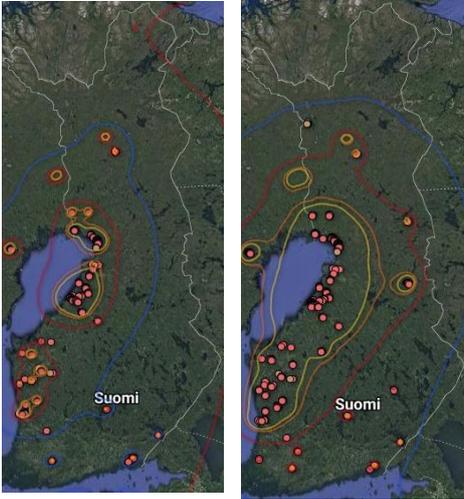
Coniferous trees emit more terpenenes which are converted to ozone and damages the needles and leaves. This "Ozolyte process" reduces the absorption of carbon dioxide and is already a problem, which is expected to increase until 2050.

- reduced forest area. Felling for foundations, workspaces, roads and power lines results in less capacity for absorption of carbon dioxide.

### **Ecosystem and biodiversity**

- research shows that insects in the micro-fauna communicate through vibrational sounds within a few meters distance (20-40 Hz). The extreme noise emission of the wind turbines in this frequency range blocks the sound and vibrational communication systems of the insects.

- Wind turbines kill large amounts of insects (Deutsches Zentrum für Luft- und Raumfahrt, 2018). Also sensitive night-flying species. Extra large risk for butterflies with sensitive wings. The amount of insect in Europe has decreased from 9 kg to 3 kg/km<sup>3</sup> over the past 15 years. Wind power is part of the explanation. This is a very serious threat to a sustainable future.
- Wind power plants are a new human-developed top predator in addition to the natural ecosystems. Studies show that they emit natural predators and cause explosion of species that are their foodbase.



The above examples show that the European debate is a pseudo-debate that misses the renewable energy alternatives threats to climate, health, ecosystems and sustainable future.

While an increasing proportion of the European population is exposed to extreme low frequency noise and infrasound noise from wind turbines. The ever increasing and more powerful turbines emit large amounts of pulsating air shocks, particularly in the wind direction and at wind speeds above 6 m/s. These energies extend over long distances and interact with other wind power plants and form coherent noise “carpets” according to the attached Finnish material. (Picture).

Support is now available in the WHO Environmental Noise Guidelines for the European Region 2018 report.

WHO recommends lowering the target value (45 dBden =

= 38.3 dBA) and rejects the application of dBA due to the special character of the sound.

Low frequency sounds, inaudible pressure waves (infrasounds <20 Hz) and ground vibrations interact and increase the sound level indoors. Powerful “dunk” sounds and echo effects occur when the blades pass by the towers. The speed at the blade tip is about 300 km/h.

Turbulence causes extra high amplitude modulated noise bumps during shorter sequences, mainly during night time with low background noise. Relationships between environmental noise and health effects were reported in the WHO Appendix, Biological Mechanisms Related to Cardiovascular and Metabolic Effects by Environmental Noise.

German specialist physician (Tomas Stiller, Ärzte für Immissionsschutz), states that healthsafe limit value for unfiltered measurement is 60 dBZ or 10 km from a single turbine. It is then extremely problematic that the Swedish government approved a permit for the Markbygden-project on 1101 wind turbines, only 8 km from the central city in Piteå municipality, without testing the accumulated effects of pulsating air shocks (“infrasound”) and ground vibrations. This can be compared to an uncontrolled medical clinical experiment.

More and more facts show that the European wind power expansion is based on erroneous limit values and calculation models, which slowly will have a paralyzing effect.

In France, 18 of the country's leading government officials, researchers, experts and citizen representatives have taken the initiative to Collectif Énergie & Vérité (Energy and Truth, 2019-02-22), to present the facts in the energy debate. These people share the same values of energy and the importance of development in France. The group is determined to present arguments without an ideological basis for analyzing scientific reports and presenting the truth. This is encouraging and should be followed by truth commissions in all Member States and within the EU community.

The time is short until the EU elections 2019-05-26. We now realize the importance of informing voters about Parliament's varying degree of insight into the negative effects of wind power. In order to try to send representatives to Brussels, who can vigorously act against this self-destructive policy and find effective and healthy ways to energy production and reduce climate emissions in Europe.

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