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### Announcement of a Bachelor Thesis

— Within the framework of the research project “Field trial on the influence of High Voltage Direct Current (HVDC) underground cables on soils and agricultural crops (CHARGE)” the following thesis is advertised:

#### Effects of electromagnetic fields on plant and root growth

The future German energy concept envisions an energy mix for electricity generation, in which renewable energies account for a share of 80 % up to the year 2050. To date, the German power grids have not been designed to transport electricity from renewable energies across the country. The planned route construction is taking place under land following a decision by the German government in 2014. Hence, large infrastructure measures are planned that are associated with considerable impacts on soils due to the laying of cables. In addition to changes in soil structure, underground cables also result in significant heat emission to the surrounding soil. The potential impacts on plant growth and yield through alternative construction measures and possible thermal losses have not been investigated into detail so far. In addition to heat dissipation, electromagnetic fields can also be expected to influence plant growth.

— The aim of this thesis is to investigate the effects of electromagnetic fields on plant growth within a literature review.

The thesis can be written in English or German. I am looking forward to hear from you.

With kind regards

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