



# Güssing, Jühnde and Samsø: Three European energy landscapes

R. de Waal<sup>1</sup>, S. Stremke<sup>2</sup>; Wageningen University, Wageningen/NL

Sustainable energy transition – the shift from fossil fuels to clean, affordable and reliable renewable energy sources – is inevitable. In the literature, this transition is discussed from various angles. Because most renewable energy is assimilated in the landscape, it is argued that the planning and design of landscapes is essential to energy transition. Our literature research, however, has revealed that only few studies have investigated whether energy landscapes can actually be planned and designed; a presumption that is made by many environmental designers. Besides, we feel the need to include landscape aesthetics in the discussion on *sustainable* energy landscapes.

In order to study the above issues, we have conducted a comparative research, including document study, fieldwork and interviews, of three non-fossil energy landscapes in Europe. The cases are the island of Samsø in Denmark (fig. 1), the village Jühnde in Germany (fig. 2) and the municipality Güssing in Austria (fig. 3). These are amongst the most ambitious and successful initiatives in Europe, each one utilizing multiple renewable energy sources and technologies. The three areas are comparable in the sense that they are rural areas with a low population density.

We conclude that despite the overarching European target for the share of renewable energy, different legislation and strategies exist in the EU countries. Samsø was planned in the conventional sense. Jühnde was initiated as action research project but then developed successively by the locals. Güssing co-evolved over time, with the help of some experts. One rather surprising insight is that, in all three cases, landscape aesthetics were of little concern during the transformation of the physical environment. Nevertheless, we must admit that fewer problems had occurred in the actual transition, compared to what we had expected in the first place. An integrated, regional planning and design approach as argued for example by Van Kann, Stremke and Koh[3] has not been applied in any of the studied cases. During the presentation, we will illustrate how these energy landscapes have developed over time and what a more integrated approach could offer to other regional energy landscapes. Besides, existing non-fossil energy landscapes can contribute to the emerging discourse on sustainable energy landscapes and landscape aesthetics in general.

**Keywords**

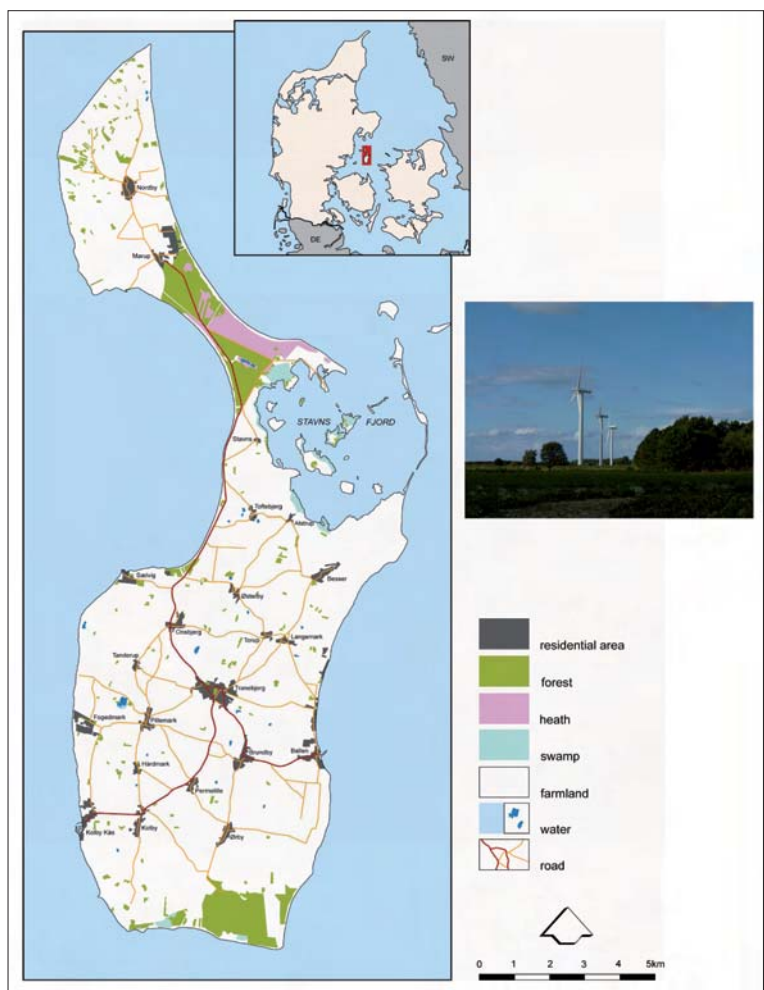
sustainable energy, landscape architecture, landscape planning

<sup>1</sup> Landscape architect and PhD researcher, Landscape Architecture chair group, Wageningen University, Wageningen, The Netherlands, E-mail: Renee.deWaal@wur.nl

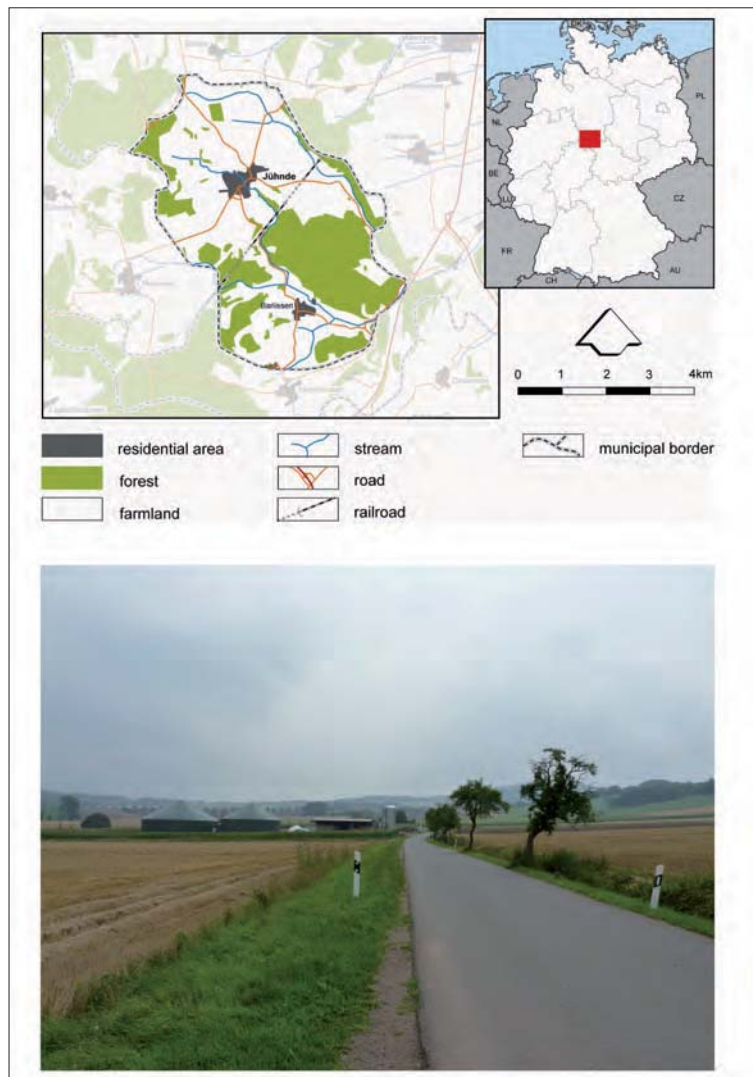
<sup>2</sup> Landscape architect and senior researcher, Landscape Architecture chair group, Wageningen University, Wageningen, The Netherlands, E-mail: Sven.Stremke@wur.nl

<sup>3</sup> Stremke, S. (2010). Designing Sustainable Energy Landscapes: Concepts, Principles and Procedures. PhD thesis Wageningen University p. 111–125.

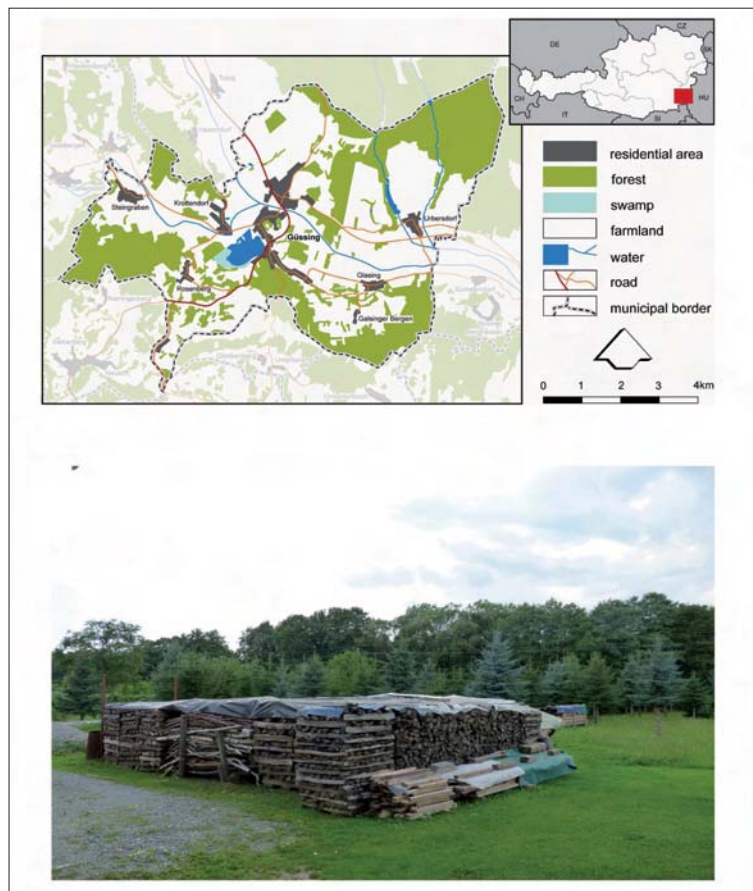
✉ Renée de Waal, renee.dewaal@wur.nl, Sven Stremke, Sven.Stremke@wur.nl



location of and infrastructure and major land uses and in Samsø, Denmark. The image shows onshore wind turbines.



Location, infrastructure and major land uses in Jühnde, Germany. The image shows a fermentation plant in its surroundings.



Location, infrastructure and major land uses in Güssing, Austria. Wood is the most important renewable energy source here.