

Sustainable energy landscapes 2.0 – Design methods

Dr. Dipl. Ing. Sven Stremke, ✉ Sven.Stremke@wur.nl

General introduction to the track 'Sustainable Energy Landscapes 2.0' – The central question of this track is how to design sustainable energy landscapes. Sustainable energy landscapes, as envisioned by the hosts of this track, not only assimilate renewable energy but also cascade residual energy and reduce energy consumption. This new generation of energy landscapes aims to sustain human quality of life without harming landscape quality, biodiversity and other landscape services. Landscape architects, planners and designers are believed to play a critical role in the transition of today's fossil-fuel landscapes to sustainable energy landscapes. The planning and design of sustainable energy landscapes will be the central focus of this session. We will discuss existing approaches and new methods that show promise of facilitating both a reduction in energy demand and provision of renewables through energy-conscious landscape planning and design. The session will begin with a study on how three existing energy landscapes developed over time and to what extent planners and designers were involved in the transformation of those landscapes. The second presentation demonstrates several research by design projects on the impact of wind turbines conducted by artists, scientists and landscape architects. A third presentation will reveal how applying a multidisciplinary approach can help in understanding why certain energy-conscious interventions are met with opposition. Finally, an advanced approach to the design of sustainable energy landscapes employing 3D GIS landscape visualisations is presented and discussed with the audience.