

## Course: Building Communities and Energy Landscapes

credits: 10

<b>Course code</b>	ESVM21BCEL	<b>Modes of delivery</b>	Tutorial
<b>Name</b>	Building Communities and Energy Landscapes	<b>Assessments</b>	Building Communities and Energy Landscapes - Assignment
<b>Study year</b>	2022-2023		
<b>ECTS credits</b>	10		
<b>Language</b>	English		
<b>Coordinator</b>	W.H. Timmerman		

### Learning outcomes

The 'Building Communities & Energy Landscapes' course will enable students to:

1. Analyse and evaluate how local resources and 'clustering connections' can be mobilized to solve energy transition challenges
2. Analyse, identify and evaluate the actors and factors in the development process of energy communities in the context of relevant theories of social movements, systems thinking and network thinking
3. Compile an advice for energy communities to develop local energy collaboration and solutions
4. Form resilient energy communities based on multi-stakeholder perspectives
5. Engage in a self-learning process that draws lessons from concrete energy community experiences in light of academic conceptual and analytical frameworks
6. Analyse and evaluate how decision-making processes, across society (at 'meso' level) between regional coalitions and bottom-up initiatives (at 'micro' level), can support energy transition.
7. Analyse and evaluate community building systems and decision-making processes in their local end meso-context
8. Co-develop spatial strategies for energy landscapes and support their implementation within the context of multi-stakeholder projects or initiatives,
9. Engage adaptively and analytically in complex, changing physical environments, leveraging relevant theoretical, practical and where necessary local knowledge.
10. Demonstrate knowledge and ability in identifying, instigating and / or organising the investigation and / or design of solutions for different components in the spatial domain of energy communities
11. Evaluate the significance of spatial contexts, assignments and interventions within the setting of energy transition and community development in the face of uncertainty.
12. Reflect upon the cultural value of energy landscapes within personal paradigms, actions, interactions and potential role in energy transition.

### Content

In the module Building Communities & Energy Landscapes (BC&EL) the focus is on bottom-up energy transition, where the role and the development of local energy communities is investigated, next to the transformative effects of energy projects upon the environment. The PESTEL factors Social-societal and Environmental will be highlighted. Real life projects will be subject of the assignments.

In this module students will acquire knowledge on how energy communities can be developed and supported to facilitate energy transition solutions at local (micro) and regional (meso) level. Energy communities, as grassroots social movements, will be elaborated and tools will be provided to analyse their development process. Next to that, success and fail factors will be analysed, depicted in the complex context and network of stakeholders within which the initiatives have to operate.

Students will develop their understanding for the spatial (and perceivable) dimensions of energy transition within the paradigm of the "energy landscape". They will also learn how to intervene effectively within the processes that shape different energy landscapes by exploring alternative analytical tools (contextual mapping + strategic navigation). Students will develop insights and skills necessary for the navigation of wicked (spatially inter-related) problems at different spatial scales and across diverse social contexts (strategic navigation + evolutionary probing). They will learn about theories and practice methodologies in support of integrated and systematic decision-making and intervention in complex spatial settings (evolutionary probing). They will learn what is required in communicating, influencing and steering spatially orientated components, processes and issues with professionals and other stakeholders. In the project with a real life local energy community, students will act as energy transition professionals, providing advice to the initiative on further steps in their development process.

### Included in programme(s)

Energy for Society

### School(s)

Institute of Engineering