

Description of research

Climate change is anticipated to affect electricity infrastructures in a variety of ways. The impacts of climate change-induced extreme weather events on electricity infrastructure components has been actively researched in recent years, but it is still unclear how such events can be anticipated to affect the Dutch electricity infrastructure as a whole, at the network level. This research seeks not only to shed light on possible network-level impacts, but also to identify robust strategies for improving the resilience of the infrastructure.

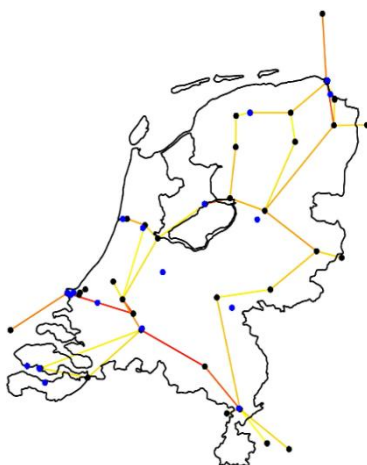
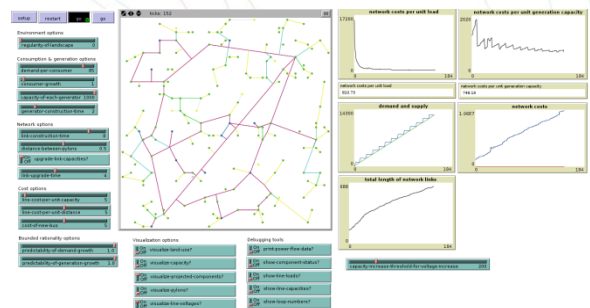
In addressing these objectives, the research applies a *complex adaptive systems* perspective, implying that the operation and long-term evolution of the infrastructure is viewed as a consequence of the actions and interactions of a set of agents, or actors. This perspective reflects the fact that operation and evolution of electricity infrastructures are ultimately driven by the decisions of the actors associated with the infrastructure, and that these decisions are key to enhancing resilience.

Research question

How can we support the resilience of the Dutch electricity infrastructure to climate change?

The most important conclusions

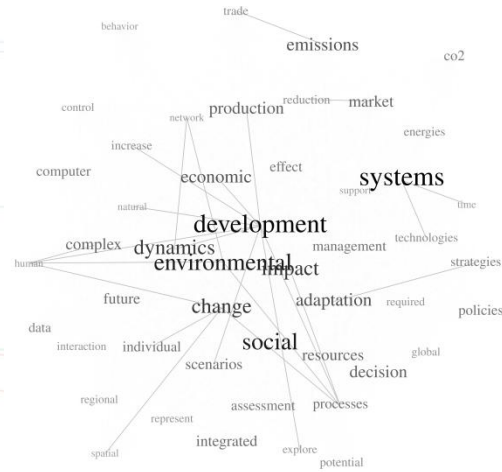
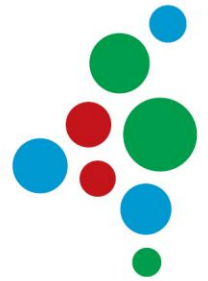
- Conclusions forthcoming



Possible applications from the project

- Overview of important vulnerabilities of the Dutch electricity infrastructure due to climate change.
- Policy/strategy recommendations for improving the climate change-resilience of the Dutch electricity infrastructure.
- A set of learning tools for stakeholders.

Kennis voor Klimaat Knowledge for Climate



Challenges of the project

- Climate change may affect the performance of electricity infrastructures for years to come. Before we can understand which vulnerabilities are most important, we need to understand how the electricity infrastructure may change over the coming decades. A key challenge of this project has to do with capturing this long-term evolution in a model.

Opportunities for the project

- The models developed in this project can be extended explore the vulnerabilities and resilience of the broader European electricity infrastructure under climate change.

More information

For more information about this project please contact

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