

Onshore wind energy in the region Rivierenland;

The potential impact of citizen participation

extended abstract

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Problem & methodology

The Netherlands has set regional and provincial targets to reach onshore wind energy production goals, in combatting climate change. However, achieving the targets is proving to be a challenge. Two of the twelve provinces are certainly not going to make their target by the deadline, and for four more provinces it is still unclear if they will make their respective targets. Many of the solutions to enhance wind energy development focus on increasing local support (decreasing the opposition). The expectations from increasing local support, for instance by increasing local ownership, are substantial and have resulted in changes in (proposed) policy. Due to the lead times of projects averaging around 5-7 years, the impact of new approaches to participation cannot be empirically observed.

This study clarifies the uncertainty by conducting 17 interviews and by conducting a survey among industry experts. The study analyses the results using a simulation model. The interviews are used for the validation of the model and the survey for the parameterisation of the model. Subsequently, the SD model is used for the analysis and comparison of different forms of participation on the development of wind energy. Within this analysis there is a focus on the impact of using higher order smoothed delays on the model behaviour, increasing the representativeness of the model.

Preliminary results

Using the stock and flow diagram as shown in Figure 1, the study established that the form of participation used in a project can strongly influence the success chances, while

it also impacts the lead times and returns and reinvestments. Moreover, this study found that the project development and achievement of the regional targets is quite sensitive to the success chances. The impact of different forms of participation on the time to achieve targets is sizable. Government officials and developers alike should consider this in their approach to new developments.

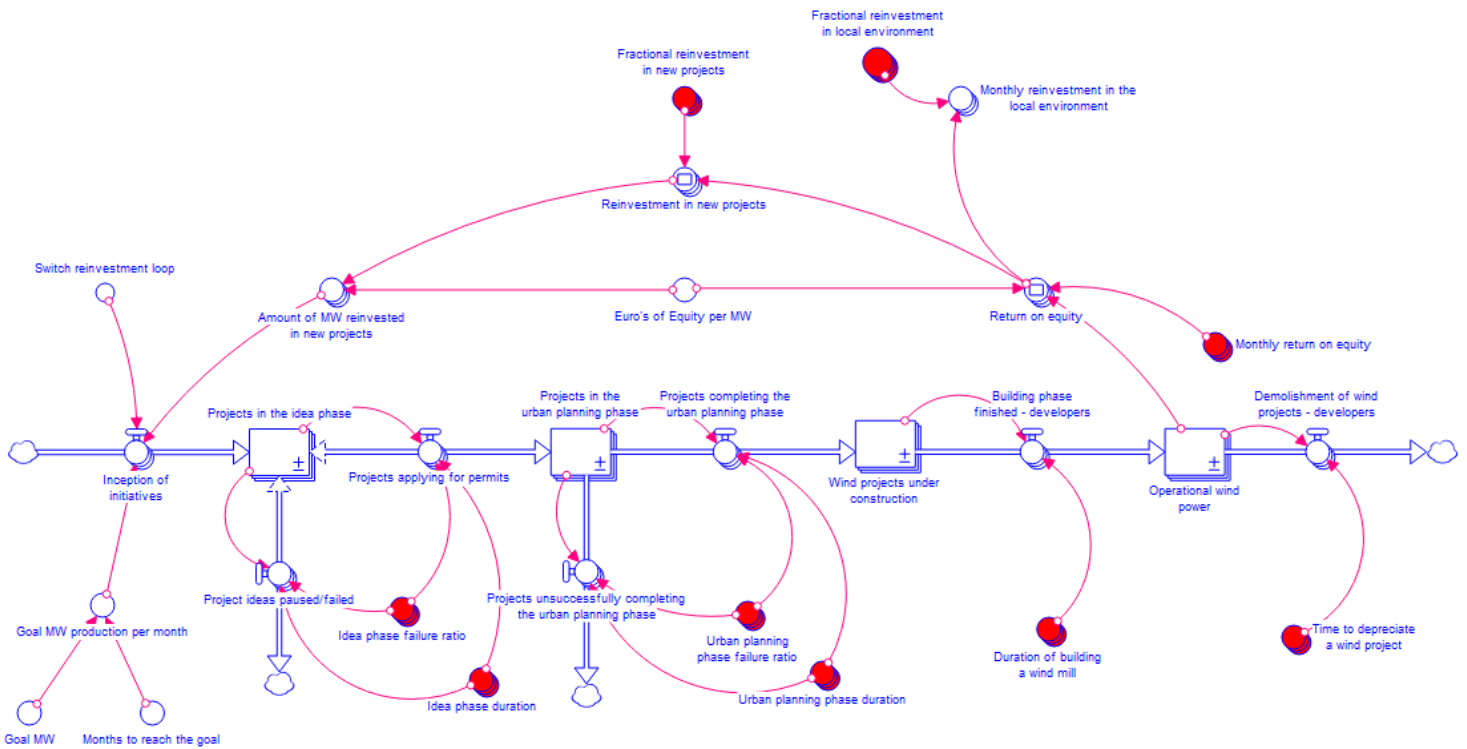


Figure 1: First order SFD – the impact of participation on wind energy development

Next steps

This study found that the success chances of the project are the most sensitive variables to the model behavior. However, the results of the survey have been difficult to interpret as the standard deviation of the answers were sizable. There is still a lot of uncertainty regarding the exact impact of using different forms of participation in the project development. To expand our understanding of the influence of participation on the success chances, it is suggested to use a vignette experiment among decision makers.

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