Floating solar gaining momentum

A study into the transition process of floating solar in the Arhnem-Nijmegen region.

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1 Introduction

- The realization of the climate agreement has been assigned to the Regional Energy Strategy (RES) regions.
- Floating solar is a mature and promising technology.
- At the moment there is little knowledge and attention for floating solar.
- Independent research facilitated by Solinoor b.v.
- What problems are there for the technology, and how can they be overcome?
- In which way can policy interventions contribute to the transitionproces?

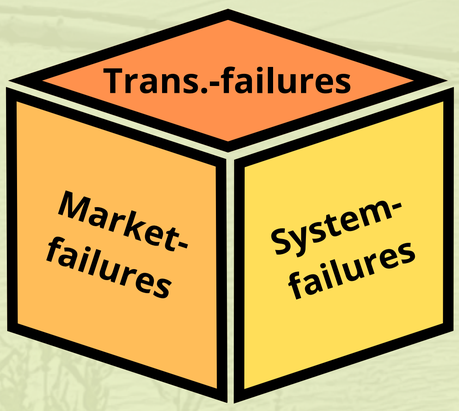
RQ: Which policy interventions can contribute to reducing regional barriers in order to accelerate the transition process to decentralized energy generation, using floating solar, in the RES region Arnhem-Nijmegen?

2 Research design

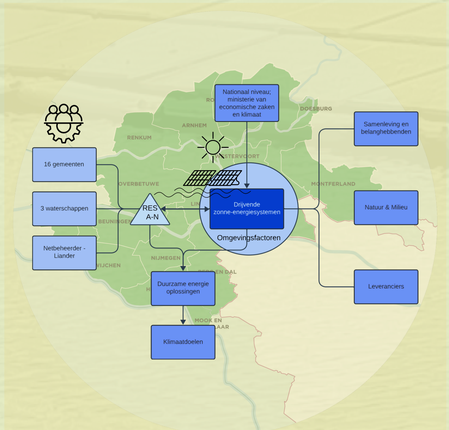
- **Seven expertinterviews** with different actors such as: water authorities, the RES, municipality, project developer, grid operator.
- Interpretive approach.
- Qualitative content analysis.
- Research results linked to the '*failures framework*' of Weber & Rohracher (2012).

3 Theoretical framework

- **'Rationales'** for policy interventions.
- The framework combines **market-, system and transformational system failures.**
- **Innovation and transition thinking** combined with policy
- Failures used as indicators for intervention options.
- Literature gives suggestions for policy to overcome the indicated failures.



Failures framework (Weber & Rohracher, 2012) visualised



Actormap of the RES-Arnhem-Nijmegen

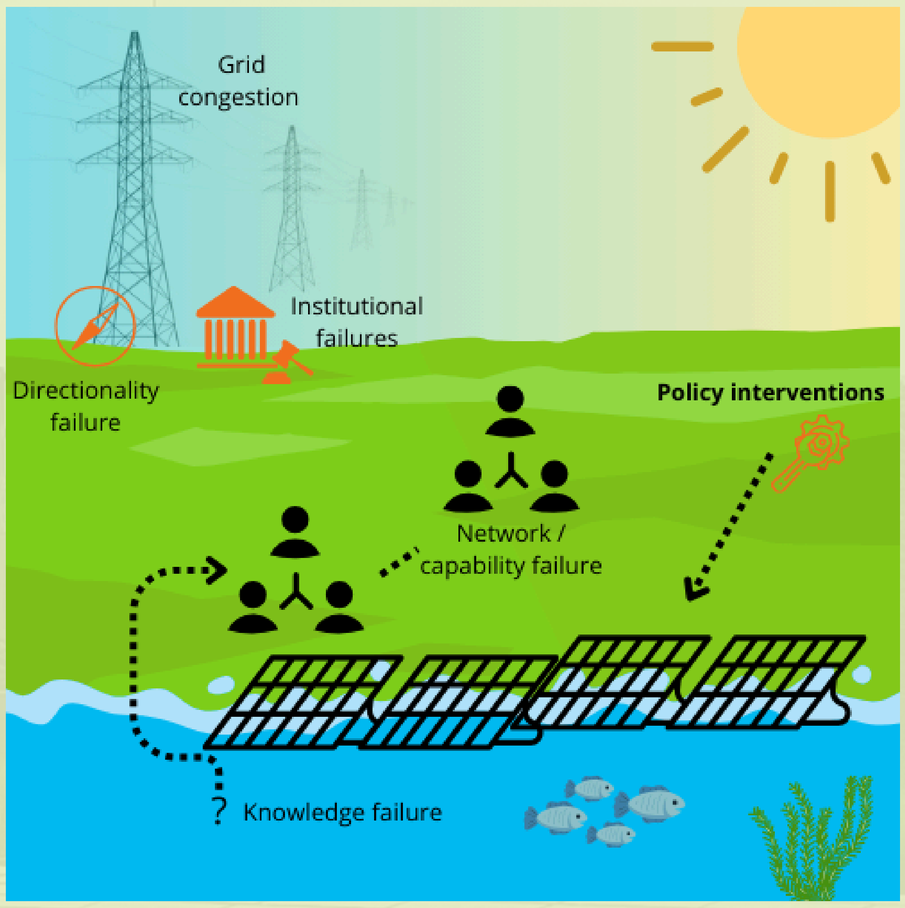
4 Results

Market, system, and transformational change failures were identified, including:

- **Market failures**: information asymmetry.
- **System failures**: infrastructural, institutional, network, and capability failures.
- **Transformational system failures**: directionality, demand articulation, policy coordination, and reflexivity failures.

Policy interventions

- **Different actors** all indicated **other problems** and suggested **different solutions** for the indicated problems.
- Suggested interventions **correspond** with examples from literature
- Literature suggests to link the failures to the **TIS-functions**, and improve these functions with the use of policy interventions.



Visualisation of indicated failures in the transiton process of floating solar

5 Conclusion

In order to accelerate the transition process of floating solar all the diagnosed failures need to be tackled with policy interventions. The three main points for intervention are:

1. Strengthen
Strengthen the physical infrastructure and institutional context.

2. Deepen
Deepen out the knowledge about ecological impact and make sure to share this knowledge with all the concerned actors.

3. Explore
Explore the opportunities of this technology by facilitating experiments and articulating demand. Develop a shared direction.

Policy instruments from interviews and literature can be used to overcome the identified failures. Policy makers must be aware of **policy coordination**.

6 Discussion

Shortcomings:

- Policy based perspective
- Only concerned actors were interviewed
- Limited research time

Further research: Investigate the effectiveness of concrete policy interventions.

References

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