CENTRE FOR RESEARCH INTO
ENERGY DEMAND SOLUTIONS

Regulatory sandboxes: are they essential to net zero?

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Structure

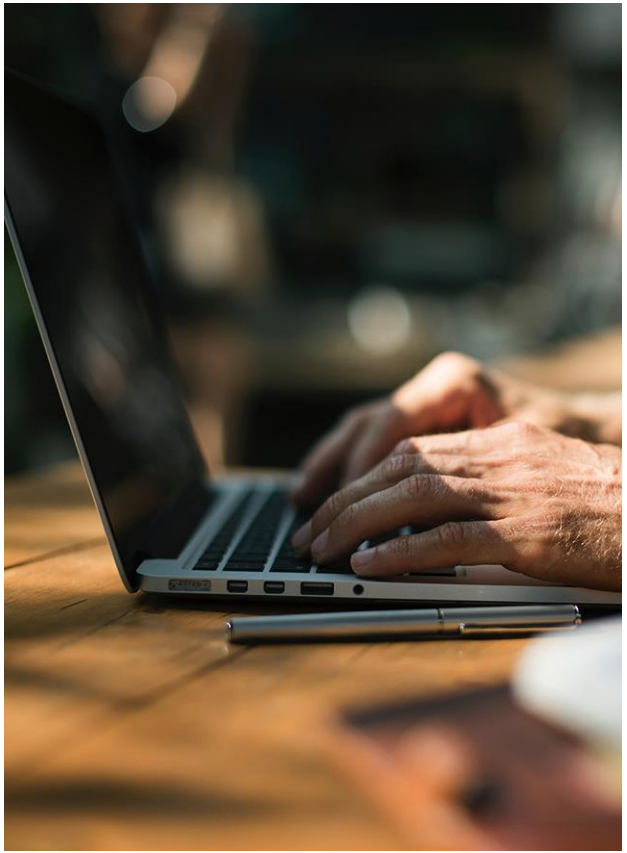
Are regulatory sandboxes key to the transition to net zero?

1. Background- net zero & sandboxes
2. Examples of national approaches- UK and NL
3. Limitations of practical rollout
4. Is there a need for a sandbox?
5. The end of a sandbox (NL)
6. Conclusion

This research was conducted within the framework of the CREDS-funded project 'Social entrepreneurship at the grid edge: understanding the opportunities for community-led DSR and collective self-consumption'.

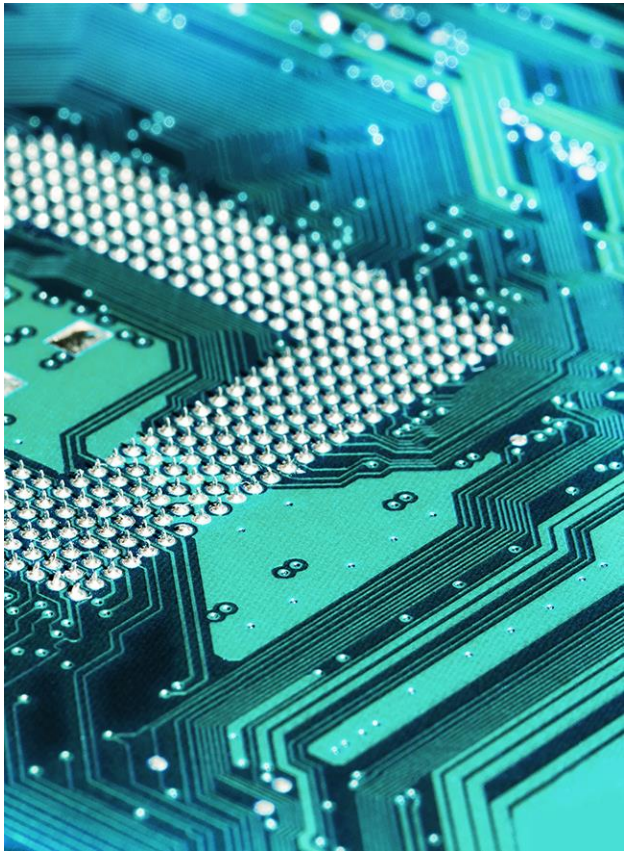
Why would we need a sandbox? (1)

- New business models & roles in the transition to net zero
- Example: European Union Clean Energy Package. Recognizes ‘active customer’; Citizen Energy Community (CEC) & Renewable Energy Community (REC); peer-to-peer energy trading.
- Such policies are vague on how exactly these new models and roles should be run and governed. Space for experimentation.



Why would we need a sandbox? (2)

- A sandbox allows for experimentation within controlled environment, with rule derogation(s).
- Policymaker takes learnings on board to assess if regulation needs to change to enable rollout of business model in the long term.
- Adaptive regulatory tool allowing policymakers to learn from new (fast-moving) innovations.
- Learn about impact on consumers. Must allow heterogeneity and reflect new (bottom-up) structures.



Examples of national approaches

- **The Netherlands**: 'Experimenteerregeling', 2015-2018, run by Enterprise Agency (RVO)
- Derogate from pre-defined list of energy regulations, e.g. exemption from license requirements
- Emphasis on letting consumer have a say over production and consumption of renewable energy
- Experiments are run by housing associations or energy co-operatives (legal entities protecting consumers)

- **United Kingdom**: 'Innovation Link', 2017-now, run by Ofgem (energy regulator)
- Experiments can derogate from rules enforced by Ofgem (or associated bodies)
- Emphasis on enabling innovation while protecting consumers
- Experiments are run by licensed parties. There must be clear benefit to consumers

Practical limitations (1)

- Despite good intentions, there are practical limitations leading to energy sandboxes not fulfilling their role of providing a learning environment. These include:

1. Lack of consumer representation:

- NL: studies of sandbox experiments show that many are run by professional organizations, and only those on the board of legal entities have a say on the running of experiments.
- UK: requirement that licensed companies run experiments limits representation and doesn't reflect the fact that entities such as community energy groups will play a more active role in net zero transition.

Practical limitations (2)

2. Lack of knowledge of regulatory framework:

- NL: experimenters, i.e. housing associations and energy co-ops, are responsible for set up and running of experiment. Due to lack of assistance, experiments were slow moving.
- UK: stricter approach of license holders running experiments may be justified in this case, but it doesn't solve the problem of lack of representation of new actors in net zero transition.

Practical limitations (3)

3. Inability to derogate from all applicable laws:

- Sandboxes are run by one regulator/gvt agency, not having control over all applicable rules (e.g. data privacy law, tax law, contract law).
- European (i.e. supranational) law cannot be derogated from.

4. Lack of transparency:

- Lack of results of experiments in public sphere- cannot learn.

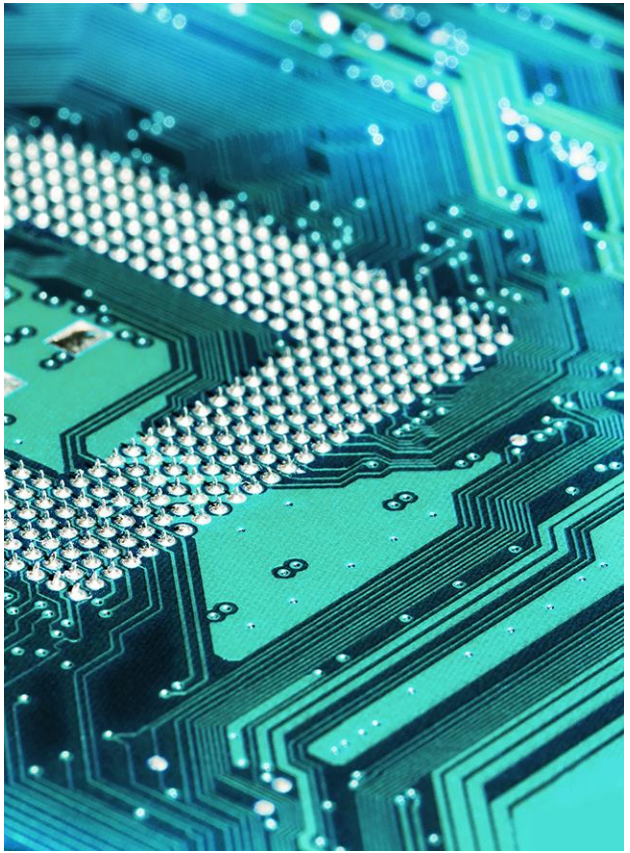
Practical limitations (4)

5. Lack of financial help & short timeframes:

- Experimenters must fund trials themselves. Community energy groups are disadvantaged here.
- Short timeframe of UK experiments (2 years, as opposed to 10 years in NL) exacerbates difficulties of running experiments. Includes set up, running and ending of trial.

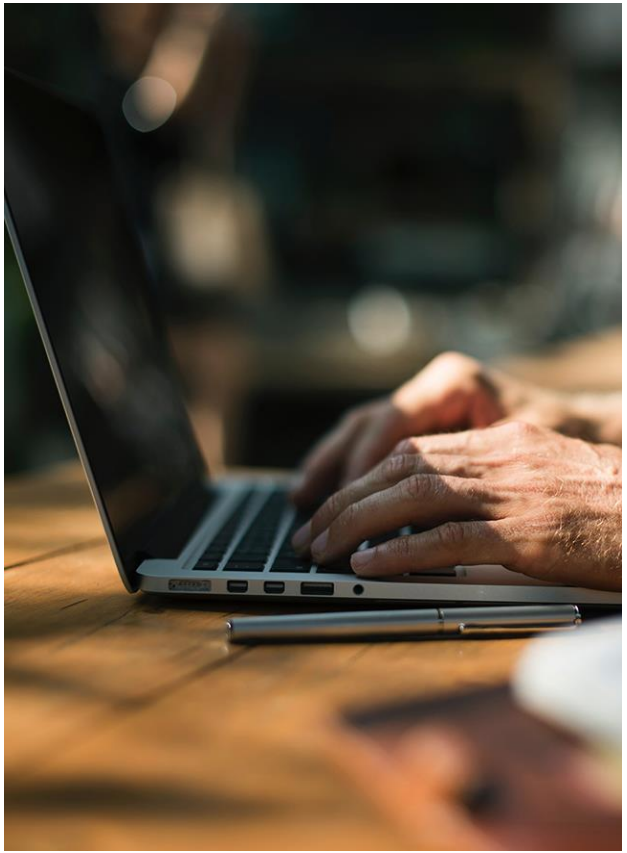
Is there a need for a sandbox?

- A low number of applications make it to the sandbox (in figures reported by NL, UK, FR).
- Little evidence of sandbox efficiency, i.e. if it actually has any impact on regulation.
- Could be that it is used as an informal tool, enabling policymakers to learn on a continuous basis → complementary tool to official regulatory processes.
- Ofgem: don't assume that a sandbox changes regulation. Learning environment first and foremost.



The end of a sandbox

- NL sandbox had most potential to accurately reflect challenges of transition to net zero.
- Unfortunately, the sandbox was ended in 2020 following a negative opinion of the highest advisory body, the Raad van State (RvS).
- RvS thought sandbox gave too much freedom to housing associations and energy co-ops, implied too much risk.
- Ending sandboxes is not the solution, instead their limitations (e.g. little (financial) assistance for experimenters) should be addressed.



Conclusion

- Sandboxes have the potential to be complementary regulatory tools in the transition to net zero, as long as their limitations are addressed.
- Limitations need to be addressed so that sandboxes reflect reality of challenges of net zero transition as accurately as possible.
- NL sandbox had largest potential to do so by giving new actors in the energy system (energy prosumers and collectives) wide ranging powers.
- It was halted for the wrong reason, i.e. failing to identify the learning potential of sandboxes (hence why they should be flexible).
- Instead limitations should be addressed, e.g. by providing more (financial) assistance to experimenters.

Thanks for your attention!

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