

Towards a Sustainable Grid Development Regime?

A comparison of English, Norwegian
and Swedish grid development.

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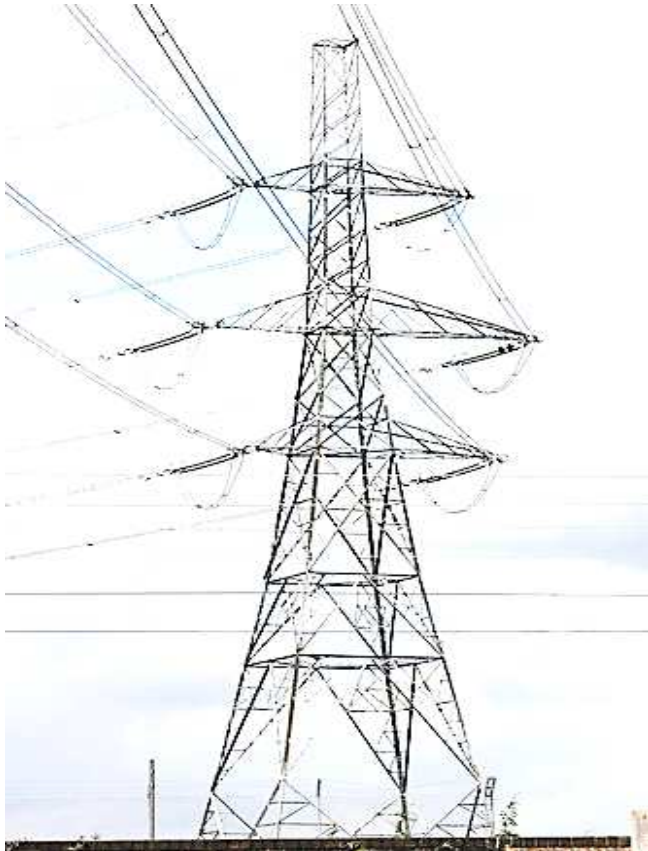
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Outline

- Background
- Approaches
- Findings
- Discussion/Conclusion

Background: Electricity grids are currently undergoing major transformations...



- International and European directives – 20% of renewable energy generation by 2020 (Kyoto Protocol, 1992; Renewables Directive, 2009);
- Integrated European electricity market
- Security of supply
- Ageing electricity infrastructures
- Smartening the grid

...Grid development is facing opposition and protest



Save Our Valley, 2009, England
Bevar Hardanger, 2010, Norway
Gräv ner Sydvästlänken, 2012, Sweden

This resistance have often led to delays or even the withdrawal of projects

One in three grid projects in Europe are delayed

Paradox: The majority of the population in Europe are clearly in favour of a 'greener' energy mix

Double opposition

Studying and comparing Grid Development Regimes

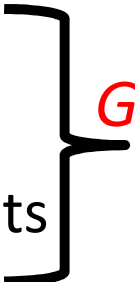
Object: Electricity grids *per se*.

At the same time: Socio-technical systems (technological + social, political, regulatory, and cultural)

Opportunities and challenges within different grid development regimes? Lessons to be learned?

Comparing

- (a) historical trajectories
- (b) planning system
- (c) concessions and arguments







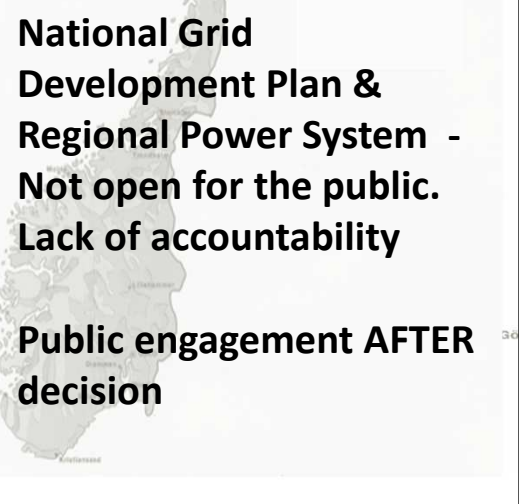

Grid Development Regime

Document studies (minutes, white papers, regulations) + some key-informants

Regimes

- Regimes: Part of nationally and historically embedded politico-administrative traditions (Pollitt)
- Traditions are "historically based set of values, structures and relationships with other institutions" (Peters)

Historical trajectories and planning systems

	England and Wales	Norway	Sweden
Historical trajectory	<p>Centralized Development</p> <p>Fragmented and privatized power sector</p> 	<p>Decentralized Development</p> <p>Locally embedded power plants</p> <p>Organizational concentration</p> 	<p>Centralized Development</p> <p>Later liberalization</p> 
Planning and concession systems	<p>National decisions:</p> <p>National Policy Statements</p> 	<p>National Grid Development Plan & Regional Power System - Not open for the public.</p> <p>Lack of accountability</p> <p>Public engagement AFTER decision</p> 	<p>Grid investment plan negotiated in the Parliament.</p> <p>Consultation report – after consultation on location.</p> <p>Regional authorities important</p> 

Three different *regimes*

	Historical trajectory	Need Assessment	Argument for Grid Development	Motive powers in Grid Development
Norway	Decentralized. Locally embedded power plants	Power system reports	Security of Supply	The power system expert The profession
Sweden	Government and national actors as system builders. Regional facilitated concession	Political accountability of TSO nationally. Deliberative ideal: consultations locally	Climate Policy Bottlenecks in grid	The consultation practice The Region
England & Wales	Centralized planning and early privatization	National Policy Statements	Climate Policy New Renewables Upgrade of existing system	High Politics The state

Discussion and conclusions

Three models for grid development: Streamlining, Experts and Consultations

England & Wales:

+ (Potentially) Streamlining - Lack of deliberation (Dahl's dilemma)

Norway:

+ (Potentially) effective - Lack of transparency and accountability

Sweden

+ More deliberative process – Time consuming in early phases

Different regimes, but all regimes are time consuming