



# Local government`s engagement with bioenergy

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Bente Johnsen Rygg, Ph.d student  
HiSF / NTNU

# Introduction

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- The paper focuses on the role of Norwegian local governments` with respect to stimulating innovation in sustainable energy
  - Bioenergy development as a case
- I will start by introducing the concept of local technology policy as a backdrop to analyze these issues
- Present findings from 14 local governments

# Why study local governments?

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- The local governments are important actors in several areas related to energy and climate
  - Developers
  - Planners
  - Building owners and customers
  - Targets for many goals set by national authorities concerning renewable energy

## Former research: what do we know?

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- Common understanding that local governments does not take part in innovation
- This has proved to be wrong; a lot of innovation happen through local government efforts
- Two ways of looking at local / regional innovation:
  - the local community as a unit (people and actors)
  - the local government`s role as a political and administrative unit

# Local governments and technology policy

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- Little knowledge about the shaping of technology policy in Norwegian municipalities.
- To what extent do they actually develop policies concerning innovation, infrastructure, regulations, and public engagement to support local development of renewable energy?
- Currently, technology policy tends to be focused on innovation

## Research questions:

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- What strategies do local governments pursue in order to stimulate to innovation?
- What kinds of policy instruments are used?
- What role do climate and energy plans play?
- Who is participating?

# Methods

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- Interviews in 14 local governments
  - Different local governments with respect to size, localization, process, type of technology etc.
- Document analysis
  - Energy and climate plans
  - Newspaper articles

## Energy and climate plans

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- Recently, in Norway, a lot of effort has been put into the making of energy and climate plans
- Similar plans are found in other countries as well
- In Norway, most local governments have such plans meaning they have a technology policy
- Are such plans contributing to increased use of renewables?



# What is local technology policy?

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- In supporting innovation, local governments face challenges to be addressed through the development of a local technology policy
- Sørensen (2002) proposes that technology policy should be studied by analyzing the following four areas:
  - Direct support of innovation
  - Infrastructure
  - Regulation (protection and standards)
  - Public engagement

# What are we looking for?

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- What strategies do local governments pursue in order to stimulate to innovation?
  - How are they involved?
- What kinds of policy instruments are used?
  - Local government plans? Regulations?
- Who is participating?
- What is the motive behind local government involvement?

## Findings: choice of technology

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- The most used technology is district heating
- Why?
  - Gradual development
  - Use of local resources
  - Involvement of local actors

## Findings: involvement of the local government

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- Most local governments have taken the initiative to develop bioenergy
  - Alone, or with collaborators
  - Contrast to national actors

## Findings: policy instruments

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- The most important policy instrument seem to be the local government plans
  - Area planning is used in order to establish a market for bioenergy
  - Conjoining area planning and energy planning
  - Mandatory connection to district heating net

## Findings: local government motives

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- What are the motives of the local governments?
  - The larger ones (often cities): climate and emissions
  - The smaller ones: development of trade, employment, increased activity

## Findings: local resources

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- Use of local resources
  - Important for small local governments
  - Involvement of local actors
  - Establishment of local companies

*It has been a mix of idealism, to use local resources and of course to make money. The district heating company makes money, but we use the money in the company to develop it further, we don't take any profits.*

(Mayor in Trysil)

# Local government technology policy

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- This shows that the local governments do have a technology policy
- What exactly do they do with respect to
  - Direct support for innovation
  - Construction of infrastructure
  - Regulations
  - Participation?



## Direct support for innovation

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- Not in terms of direct financial support, rather:
  - Requesting use of local resources
  - Cooperating with local actors
  - Flexibility
  - Information and support

*They [local farmers] have said it themselves, without the participation of the local government the project would not have been finished, at least not at that time. So I would have to say I think it [LG role] has been crucial.*

(Project leader, Rissa)

# Construction of infrastructure

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- Often an expensive and challenging part of the project, how is this solved?
  - Cooperation with private actors
  - Investment grant
  - Gradually development of the net

# Regulations

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- Mandatory attachment to the district heating net
- Secures the market for developers
- Conjoint planning

*The economy of this is constantly considered, but the licensing area, you will find it at NVE, it's quite large and ambiguous. It's not expected to be [fully] developed from day one. Those who bring in the most money, accordingly the big actors first; the nursing home, the city hall, junior high school, high school and so on.*

(Project leader, Åsnes)

# Participation

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- Securing local support
- Involvement of local actors
- Information meetings

*I was not surprised by the temperature, it was as I expected; people didn't come to the meeting to get information about the plant, they came to let us know that this is something they didn't want.*

(Local government planner, Trondheim).

## Conclusion

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- The local government energy and climate plans can be seen as a policy instrument to support local innovation
- One challenge is lack of resources in local governments
- No direct financial support for innovation
- Local governments support bioenergy development through creating a demand
- To main approaches to innovation;
  - Environment and climate
  - Local development

# How is this relevant?

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- Local governments are key actors
- Large potentials in the bioenergy area
  - Seem to have less conflicts than e.g. wind power
- Important for future strategies towards local governments

# Contact information

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Bente Johnsen Rygg

Ph.d. student,

Sogn og Fjordane University College and

NTNU, Department of Interdisciplinary Studies of  
Culture

[bente.johnsen.rygg@hisf.no](mailto:bente.johnsen.rygg@hisf.no)