

International seminar on large scale balancing from Norwegian hydropower:

# "Opportunities and challenges for large scale balancing power seen from a regional and local point of view"

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### The Lister Region

#### The Region has:

- Valuable natural resources
- Geographically strategically positioned
- Strong process industry

#### The region wants:

- Local value creation
- Local high qualified jobs
- in a long term perspective





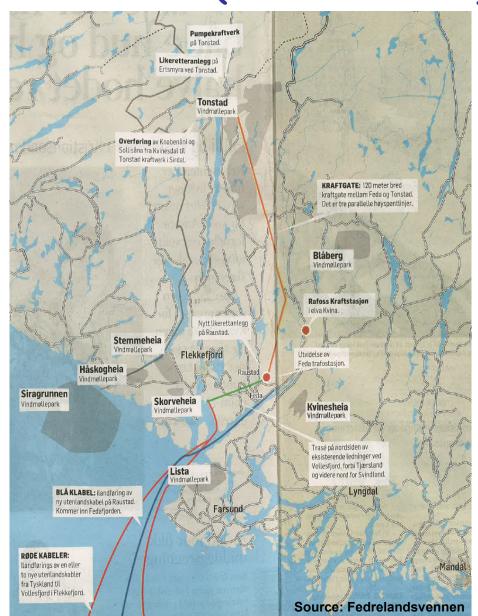
## Norwegians loves natur!





#### Plans for Lister (2010 - 2020)

- Onshore Wind
- Offshore Wind
- Big Hydro
- Small Hydro
- Pump Storage
- Grid
- Interconnectors





#### What's important





Climate friendly x (Local) value creation

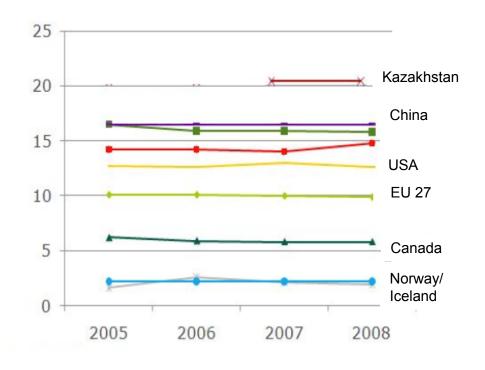
**Invested nature** 



#### Our Industry

- Local high competent jobs
- Runs on local natural resources
  - 1/2 off our power consumption,
  - 1/3 of our power production
- Climate friendly production
  - More then 50 % off our CO<sub>2</sub> emissions

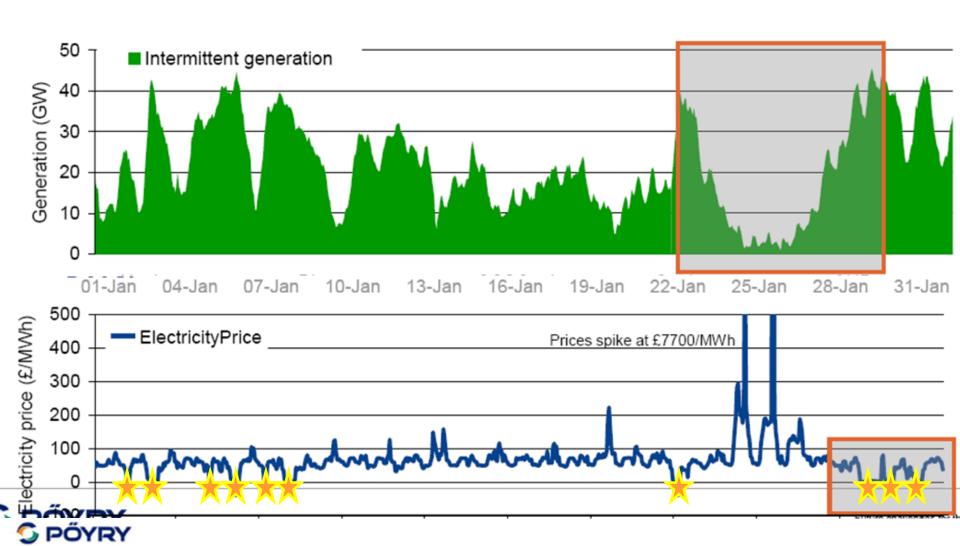
#### Tons CO<sub>2</sub> per ton Aluminum



Source: Institut für angewendte Ökologie (Öko-institut e.V.), 12.5.2011



# Prices driven by wind generation (UK 2030)





#### Our objectives

- Our aim is that the national energy and climate policy should make Norway a "green battery" for Europe.
- This is a long term goal and necessary legislations must be implemented to meet this goal.
- It is an absolute necessity that this new legislations must take regional interests in to the account:
  - When establishing new interconnectors
  - When strengthening the grid.
  - Make it more attractive to invest inn hydro storage and installed capacity
  - Make it possible for regional industry to take advantage on renewable energy surplus
  - Local communities wich is investing own natural resources should have a fair share of the value creation.

