

Norwegian Energy Sector

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Content

- Energy Sources / Production
- The power market
- Consumption by sectors
- Energy efficiency

Naturvernforbundet

Norwegian Society for the Protection of Nature

- * Norwegian environmental NGO
- * Established 1914
- * 100 local and regional groups
- * 21.000 members
- * Biodiversity and climate
- * Awareness raising, information and policy







BRIDGE

Energy Production in Norway

Renewable el + renewable heat = 60 %

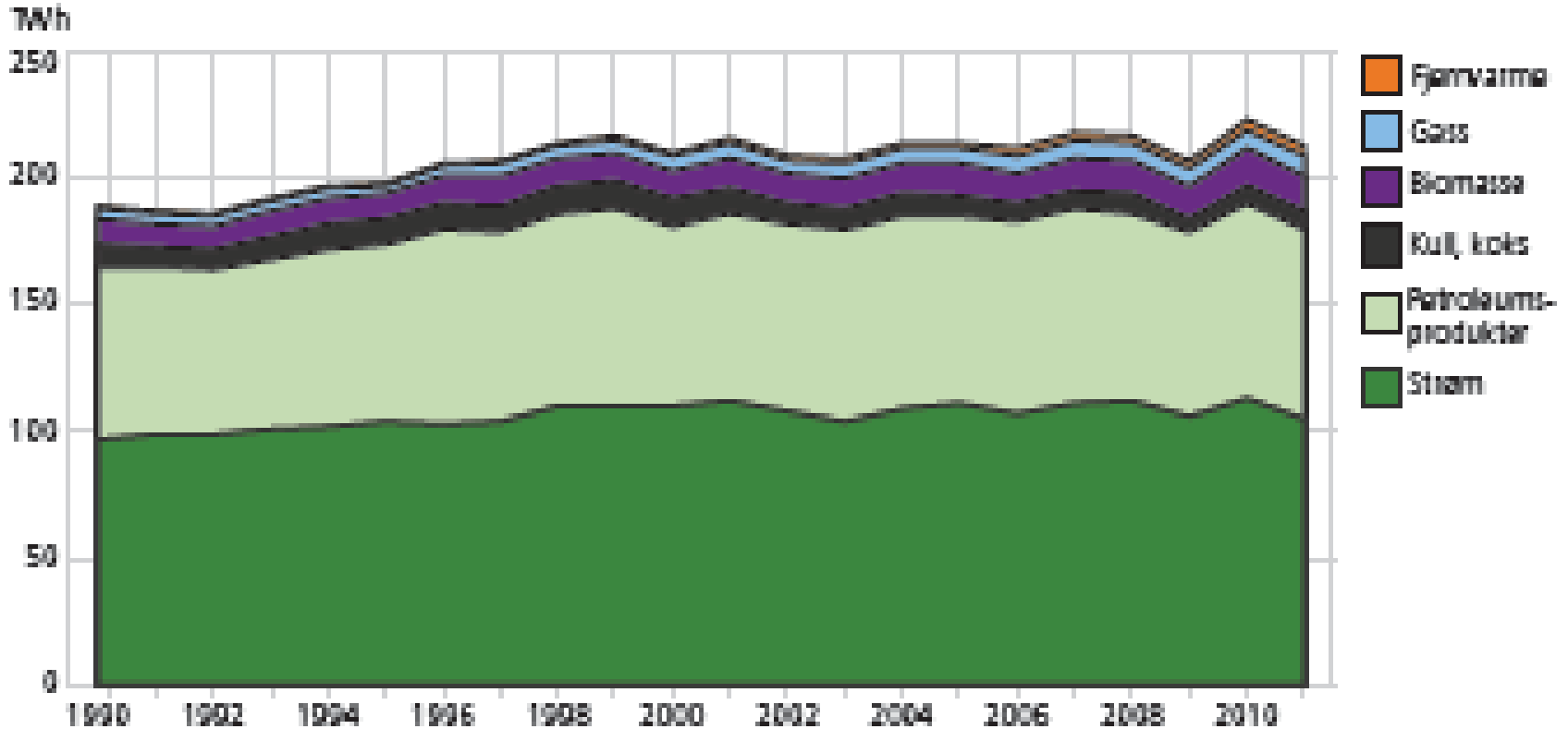
Total energy use

Electricity = 98-100 % renewable

Hydro: 750 plant – 28.000 MW 120 TWh

Wind : 800 MW 2 TWh

Energy sources



Power marked in Norway

Hydro production mainly publicly owned
- Statskraft & municipalities

Private & public transmission monopoly

Power marked liberalized in 1990

Private trading – marked based prizes

Green certificates

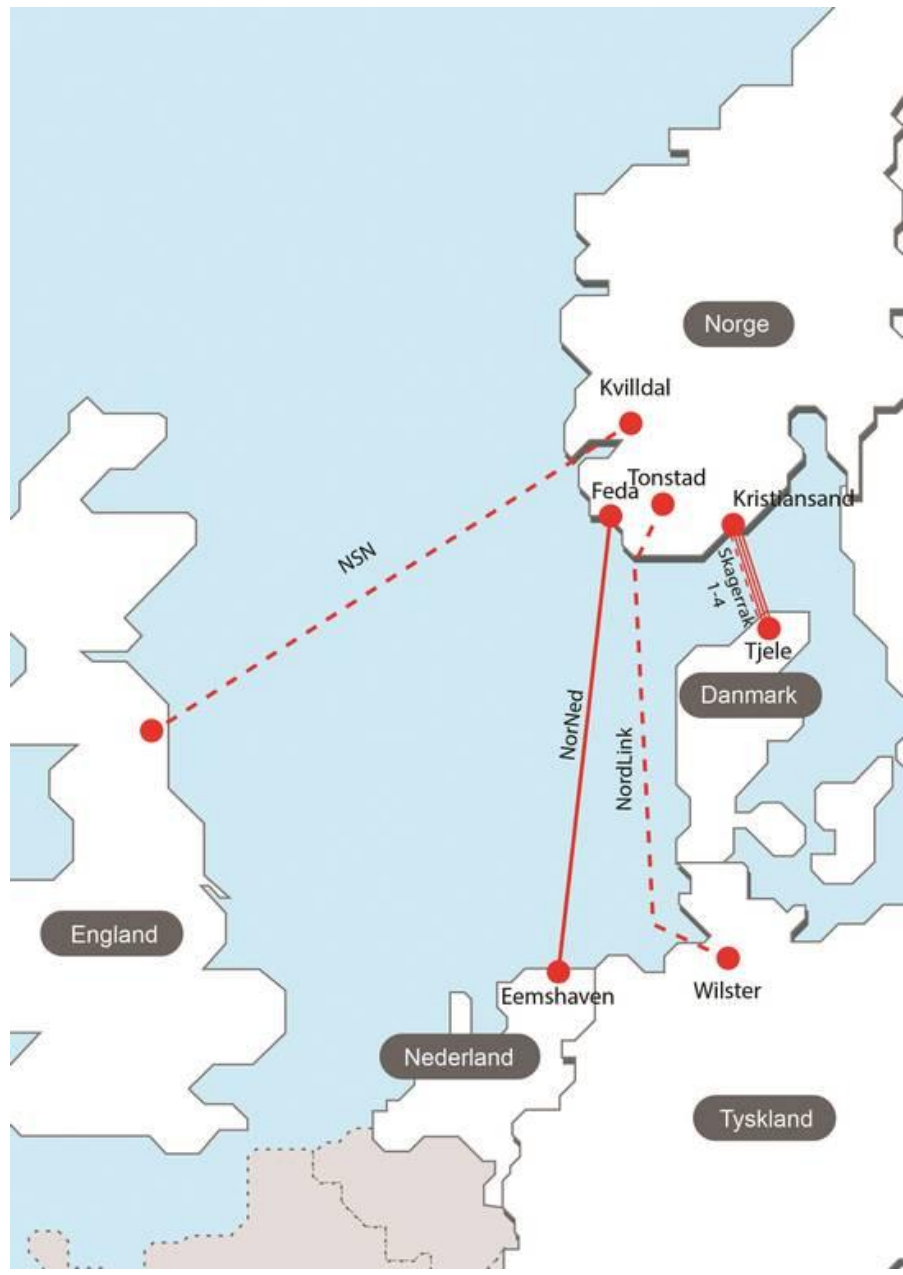
Renewable el + renewable heat = 60 %

Total energy use

EU agreement – EU 20-20-20

Norwegian share up to 78 %

Green certificate for renewable power



Energy use in Norway

- 40 % Buildings
- 40 % Industry
- 20 % Transport

Electric cars



- 2,5 million personal cars in Norway
- Soon 50.000 electrical cars
- 0,25 kWh/km – if all electric => 9,4 TWh





Buildings



Electricity dominating fuel

Homes:

44 TWh

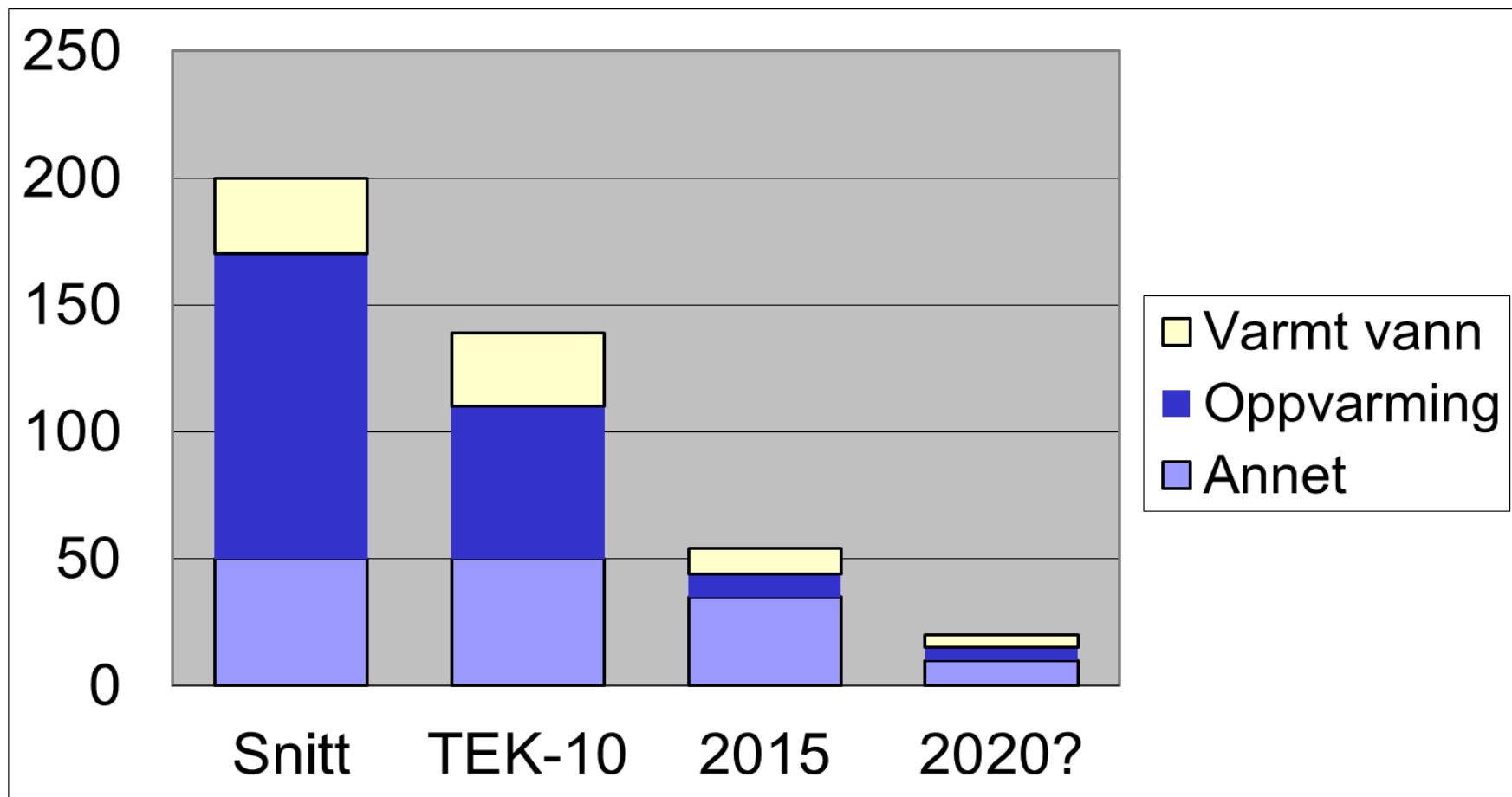
EL 80 %, Bio 15 %, Oil 5 %

Commercial and public buildings:

36 TWh

EL 82 %, Oil 12 %, District heating 7 %

Reduced energy per m2



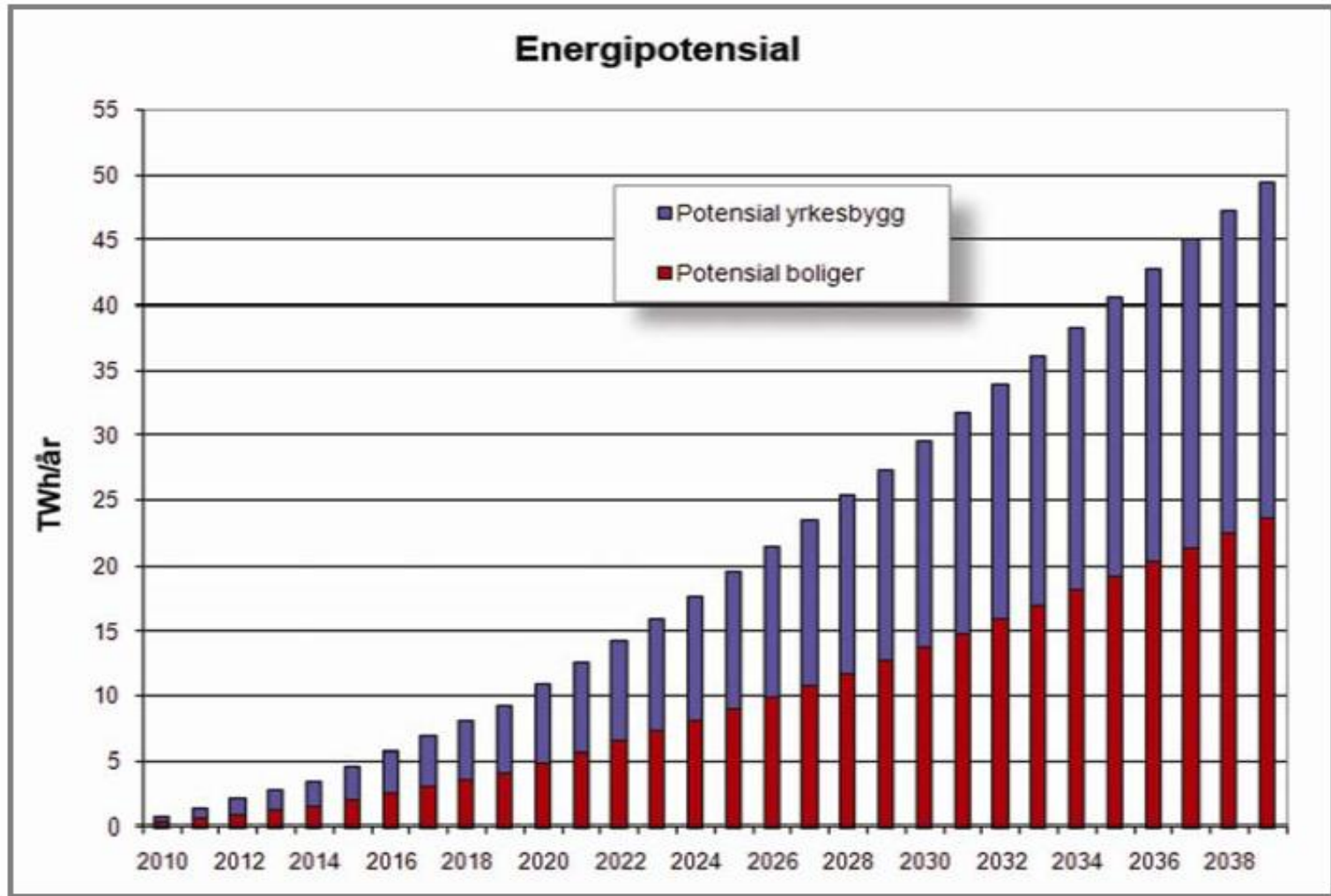
New houses > close to 0 heat



Future houses > + energy



Accumulated energy saving...



At the cross road



The challenge for energy efficiency

- Confused with savings..
- EE is not a product, but a feature
- Many decision makers
- The energy gain and profit decentralized
- Existing structures not always suitable to deal with the challenge
- The multiple benefits of efficiency not included

“Right school”



Класс в школе до и после установки новых ламп



Класс в школе до и после установки новых ламп

SPARE



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 Naturvernforbundet
Friends of the Earth Norway



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Eco labeling of power

