



## From coal, oil and gas to green energy

The Danish Government today unveiled its “Energy Strategy 2050”, which describes how the country can achieve its independence from coal, oil and gas by 2050 and significantly reduce its greenhouse gas emissions.

The energy strategy contains a raft of initiatives that will reduce the energy industry’s use of fossil fuels by 33 percent in 2020, compared with 2009. The reduction will put Denmark well on its way to complete independence of fossil fuels by 2050.

*“Denmark is the first country to present such a specific and ambitious strategy for achieving independence from fossil fuels,”* says Minister for Climate and Energy Lykke Friis.

The strategy calls for a significant increase in renewable energy obtained from wind, biomass and biogas which over the next decade will increase the share of renewables to 33 percent of energy consumption, if the initiatives in the strategy are implemented. Doing so would place Denmark among the top three countries in the world in terms of overall increase in renewable energy as a share of total energy consumption. Part of the increase would also rely on increasing use of biogas for heat, and a number of new initiatives will be put forth in order to promote the production of biogas.

By 2020, construction of new offshore wind turbines at the Kriegers Flak wind farm, coastal wind turbines and land-based turbines will more than double wind power capacity in Denmark, to a total of 42 percent of overall energy production capacity, compared with about 20 percent today. Fully 62 percent of electricity generation will come from renewable sources. Meanwhile, strengthened energy efficiency efforts will reduce gross energy use by 6 percent in 2020, compared with 2006 levels. In reaching the goal, Denmark will meet the energy efficiency goals set out in the 2008 energy agreement, and the country will retain its position as a world leader in the area.

The strategy offers an economically responsible path to the conversion of the Danish energy supply, and includes specific initiatives, that are all fully

financed and which will not damage the nation's competitiveness. Homeowners will experience moderate increases in the costs of heat and electricity, but will also be given opportunities to lower their energy expenses through greater efficiency. Companies can expect added expenses amounting to 0.1 percent of the rise in their gross revenue growth by 2020.

Minister for Climate and Energy Lykke Friis underscores that the costs of converting from fossil fuels to green energy should also be seen in the light of expected increases in the cost of fossil fuels.

*"No one is saying that carrying out major investments in energy efficiency and expanding our use of renewable energy is going to be free. But the alternative: Continued dependence on fossil fuels will, as all signs indicate, only become more expensive in the years to come. Converting to renewable energy will shield Denmark from the effects of increasing energy prices."*

"This is no small task, however. Over the next 40 years, we need to cut our consumption of coal, oil and gas four times faster than we have over the past 40 years. The government's energy strategy shows that this can be done without burdening state finances and without eroding businesses' competitiveness. And, if we are smart, converting to renewable energy will also give us new opportunities to increase our exports of green energy technology at a time when the global market for such products is growing."

"The next step will be to discuss this proposal in parliament. I would like to emphasise that it is my hope that we will be able to reach a broad agreement on the energy strategy so that we can establish the framework for tomorrow's energy policy."

### **33 pct. fall in consumption of fossil fuels with "Energy Strategy 2050"**



Tomorrow's energy supply will to a much larger extent be made up of electricity produced from renewable sources. In order to stimulate the pace of this shift, the Government is proposing a broad range of initiatives that will encourage a shift to biomass in the power plants of the major cities, increase consumption of renewable energy and promote more efficient energy use. The initiatives include:

#### **Biomass and biogas**

- Make it more financially attractive to establish biogas plants by granting biogas production subsidies, subsidies for biogas infrastructure, subsidies the use biogas in industrial processes, etc.
- Replace coal with biomass by allowing producers and consumers of district heat freedom of contract, this will make it more advantageous for both sides to convert to biomass.
- Make it possible for small power plants to convert from natural gas to biomass by allowing plants up to a capacity of 20 MW to freely choose their fuel source.
- Mandate a 10 percent biofuel additive by .

### **Wind power**

- Tender of a 600 MW offshore wind farm at Kriegers Flak. Online by 2018-2020.
- Carry out study of coastal areas that would identify locations suitable for a further 400 MW of small offshore wind turbines for use in development and demonstration of new wind turbines,
- Promote placement of new wind turbines on land.

### **Intelligent energy network**

- Establish new international electricity sharing capacity in connection with Kriegers Flak offshore wind farm.
- Require that all electric metres installed after 2015 be intelligent electric metres. Reduce from 2013 the limit for installing intelligent metres from 100,000 kWh annually to 50,000 kWh annually.

### **Energy efficiency**

- Raise the energy savings target, that energy companies have to implement amongst their consumers by 50 percent starting in 2013 and by 75 percent in the period 2017-2020. Tighten building code requirements
- Gradually phase out oil and gas furnaces. Starting in 2012, new buildings may not be built with oil or gas furnaces. Starting in 2017, oil furnaces may not be installed in existing buildings.

## Research, development and demonstration

- Support development of minor renewable energy technologies, including solar and wave power. Set aside money to fund demonstration projects for large heat pumps intended for use by district heating plants, as well as funding for studies of geothermal energy.
- Create an overall strategy that will ensure national research, demonstration and development efforts support efforts to convert to renewable energy.

[Further information on the Danish Energy Strategy 2050 is available here](#) and on the [Danish Energy Agency's website](#)

[You can read the joint statement by Chris Huhne, UK Secretary of State for Energy and Climate Change, and Dr. Lykke Friis, Danish Minister for Climate and Energy here](#)

### Contact:

Press secretary Jesper Zølck Felbo, Danish Ministry of Climate and Energy,  
+45 5087 4881

Or Deputy Director Kristian Møller, Danish Energy Agency, +45 3392 6667

### [Energy Strategy 2050](#)

Kristian Møller

Vicedirektør

Direktionen

Tlf.: +45 33 92 66 67

[krm@ENS.DK](mailto:krm@ENS.DK)



## Contacts

Ture Falbe-Hansen

Head of Press (+45) 2513 7846 [tfh@ens.dk](mailto:tfh@ens.dk)