

National energy policy compared to demands in the Paris Agreement. Denmark as example

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About PlanEnergi www.planenergi.dk

- **Non profit foundation established in 1983**
- **Consultancy according transition to efficient energy systems based on renewable energy**
- **Danish Regions, Municipalities and heating/cooling utilities as main customers**
- **Participation in Danish and European development projects**
- **40 employees in departments in Skørping, Aarhus and Copenhagen**

Agenda

- **The Danish Energy Agreement of 29 June 2018**
- **Why a broad political agreement?**
- **Will the agreement fulfil the demands in the Paris Agreement?**
- **What are the next steps?**

The Danish Energy Agreement

<https://en.efkm.dk/media/12307/energy-agreement-2018.pdf>

The agreement includes the following initiatives:

- World class offshore wind
- Renewable energy on market conditions
- Reduction of taxes on electricity and restructuring of surplus heat utilisation
- Targeted energy savings
- Modernisation of the heating sector and mitigating the impacts of eliminating the “base subsidy”
- Strengthened energy and climate research
- Denmark leading the way in exports of green energy solutions
- A smart and flexible energy system
- Funding for green transport
- Reserve for additional investments in RE from 2025 onwards

At least 2,400 MW more offshore wind

The latest tenders show no subsidies from 2022



Energy Hubs with 10-15 GW in the North Sea after 2030?



Cheaper green electricity tax for heating (2 €cents/kWh) and in general (10 €cents/kWh)

Cutting electrical heating tax in half opens door for more green electricity

Lowering taxes improves our ability to utilise green electricity

From offshore wind turbines to the radiator in your living room, for example

Electricity tax reduced by approx. 15%

A single-family home with a heat pump will save approx. 1,400 DKK annually

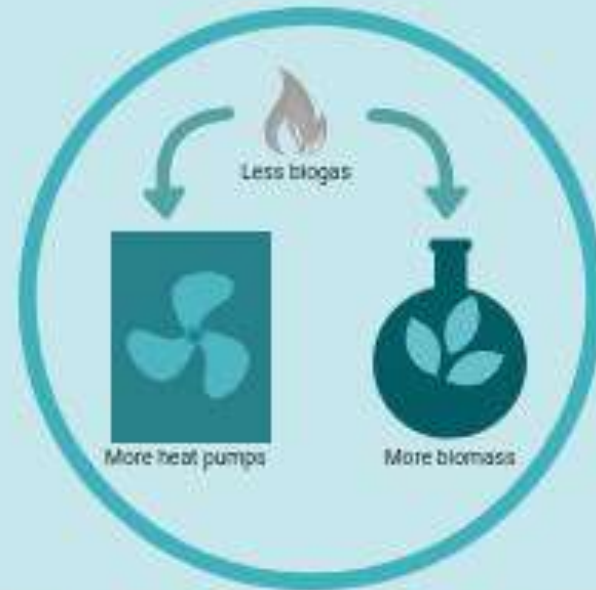
DKK

The infographic features a teal background with white and dark teal text. On the left, there are three overlapping circles containing text. On the right, there is a diagram showing three offshore wind turbines connected by a dotted line to a radiator in a living room, with wavy lines above the radiator indicating heat. The PlanEnergi logo is in the top right corner.

Greener heating



A new direction
for the
heating sector



Greater freedom for heating plants will ensure the transition from natural gas to technologies such as heat pumps and biomass.

Budget and financing

Table 1

Budgetary impacts – priorities

2018 prices, DKKm	2018	2019	2020	2021	2022	2023	2024	2025
World class offshore wind	2	10	17	16	105	117	220	376
Renewable energy on market conditions	0	0	0	β	291	346	392	429
- <i>Technology-neutral RE subsidies</i>	0	0	0	6	51	111	161	202
- <i>New biogas and other green gasses</i>	0	0	0	0	240	235	231	227
Reduction of taxes on electricity and restructuring of surplus heat utilisation	0	325	375	675	650	1,200	1,250	1,575
- <i>of which reduction of the electrical heating tax</i>	0	0	0	325	325	350	350	350
- <i>of which reduction of the electricity tax</i>	0	325	275	250	225	400	450	775
- <i>of which abolishment of Annex 1 of the Electricity Tax Act</i>	0	0	0	0	0	375	350	325
- <i>of which restructuring of the regulations for surplus heat</i>	0	0	100	100	100	100	100	100
Targeted energy saving effort	20	35	35	545	550	550	555	10
- <i>of which subsidies for energy saving</i>	0	0	0	500	500	500	500	0

Main results

- **55% renewable energy in 2030 (40% will be reached in 2020)**
- **>100% renewable share in electricity**
- **>90% of district heating from other resources than coal, oil and gas**
- **Outphasing of coal to electricity production from now until 2030**
- **Denmark will work for net zero emission in 2050 according to the Paris Agreement**

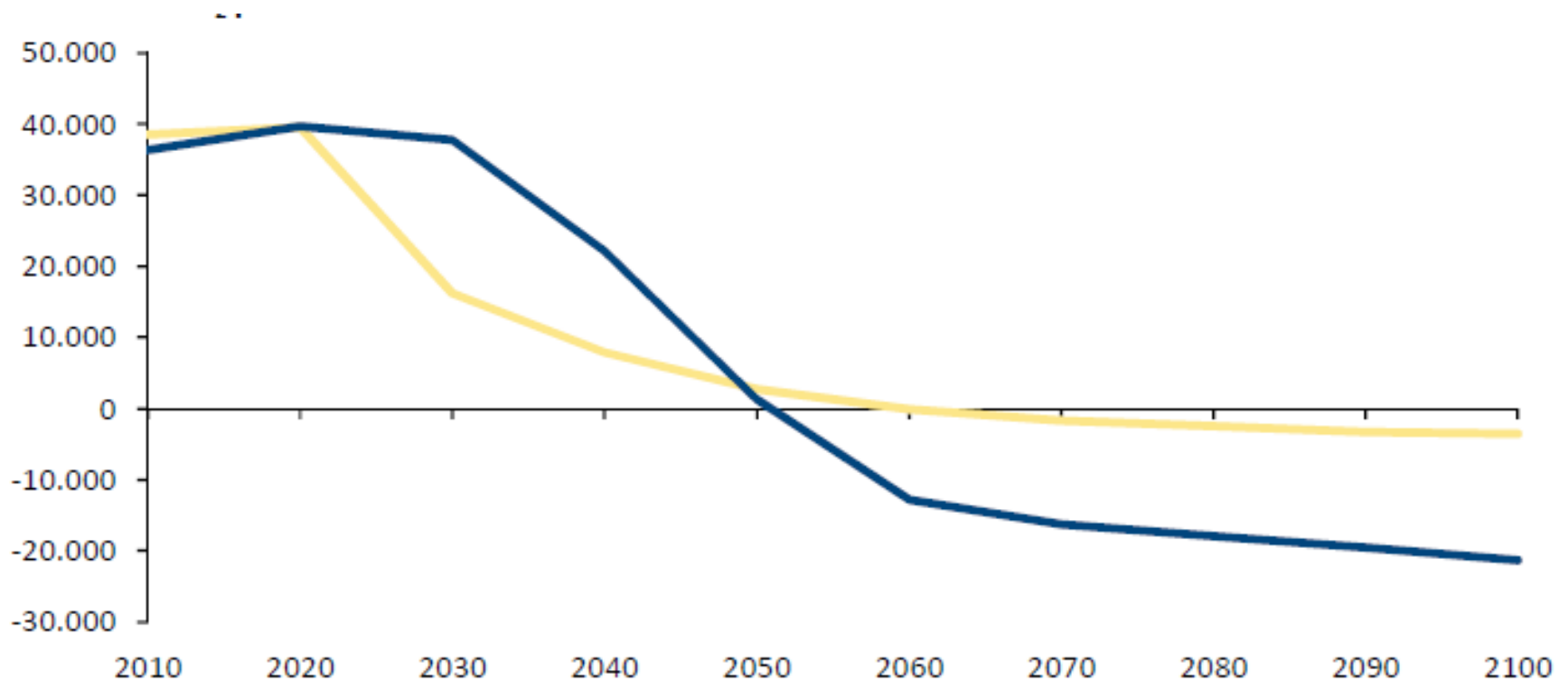
Accepted by all 9 parties in the Danish Parliament

Why a broad political agreement?

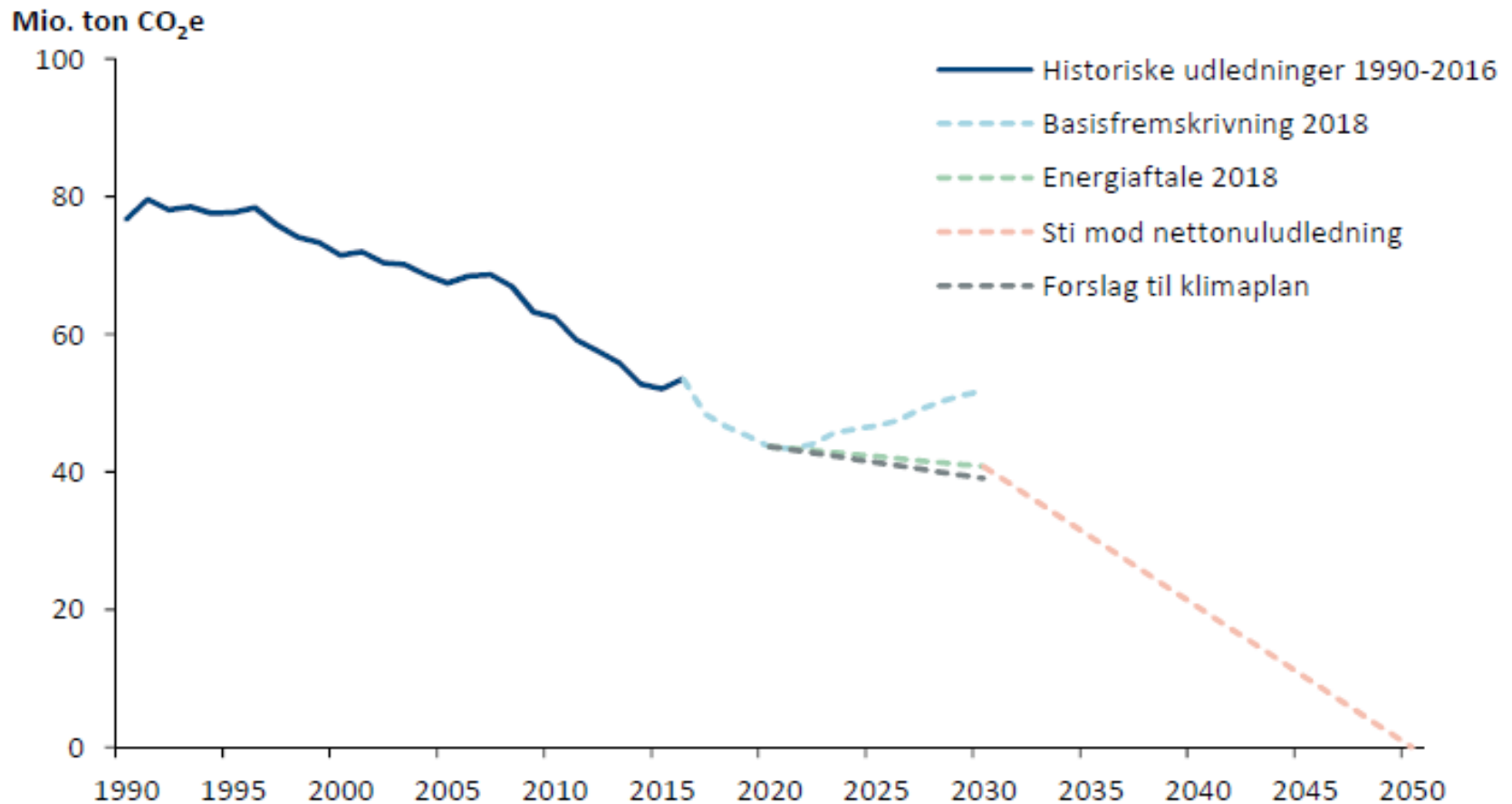
- Stakeholders (developers, utilities, municipalities..) need to know the future framework conditions to attract investments
- A broad political agreement will ensure that even if the government changes the agreement will not be changed since changes will normally not be accepted if a partner is against
- There is a tradition for broad agreements in the Danish Parliament within important topics as education, pension..
- The energy sector includes many work places and some of the largest Danish companies. So energy is more about work places and export for one side of the Parliament and more about climate for the other side..

Will the agreement fulfil the demands in the Paris Agreement?

IPCC calculation of two different scenarios to fulfill the 1.5 degrees target (Million tons CO₂ per year)



Status in DK (The Danish Climate Council)



What are the next steps?

- A new government has declared that the target for 2030 is 70% reduction in climate gas emissions
- A Climate Law will be prepared. Climate gas emissions will include emissions from all human activity (burning of fuels, metan from animals, food production, waste incineration..) and carbon sink from forests and fields)
- Part of that will be climate accounts at national, regional and municipal level and regularly monitoring of changes

Thank you for your attention
Questions?



