# A snapshot of the Danish Energy Transition



#### **The Danish Energy Transition until today**

#### 111 104 4% 19% 16% 10% 16% 4% 60% 59% 2% -9% 94 95 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 90 91 92 93 96 97 • Oil Natural gas

Fuel sources for energy production 1990 – 2018

Coal Waste, non-biodegradable Renewable energy

Full report, sources and more info at: www.climatepartnership.dk

### The way forward – 70 % by 2030



Over the next ten years, Denmark must reduce carbon emissions by almost the same amount as in the past 30 years

#### **The Danish Energy Transition continues**



Carbon emissions in other Danish sectors must be almost halved by 2030. This transformation will require large amounts of renewable energy

#### **Estimated reductions across sectors**

Contribution of own sector

Energy and utilities	12.9		6.9 Renewable energy in power and district heating	2.8 Oil and natural gas phased out of individual heating systems	1.3 Carbon capture and storage	O.8 Separation of plastics in waste-to-energy	1.1 Optimisation and electrification of North Sea prod
Contribution of other sectors			$\frown$	$\frown$			
Transport		6.2	0.6 Adjustment of baseline projection	2.1 1.5 million electric or hybrid vehicles	1.9 Power-to-X In heavy transport	0.9 Electric commercial vehicles, electric buses and electric lorries	<b>0.8</b> Biofuel e.g. biogas and biodlesel
Industry		2.6	-0.2 Adjustment of baseline projection	1.5 Heat pumps In process heat <sup>4</sup>	O.6 Energy efficiency Improvements	0.6 Internal transport	<b>O.1</b> Biogas and biodiesel for process
Buildings		0.3	Adjustment of baseline projection <sup>2</sup>	0.2 Building Installations <sup>a</sup>	0.1 Building Insulation <sup>4</sup>		
Total		22	All ci	ircled initiativ	es require i	renewable e	nergy

## 70 % by 2030 – driven by electrification

#### Estimated increase in power demand towards 2030 (TWh)



#### A snapshot of the necessary Energy Transition Mindset taking on 2030...

- > Demand-side response and smart solutions must be developed further
- Ambitious build-out of renewable energy with new thinking in terms of energy islands and transmission
- > Overall strengthening of infrastructure is imperative to support electrification
- Support for new technologies: Carbon Capture and Power-to-X