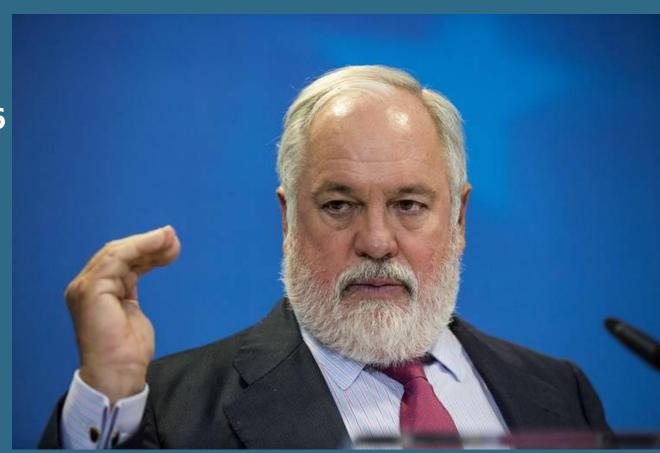
# EU Climate & Energy policy post-COP21



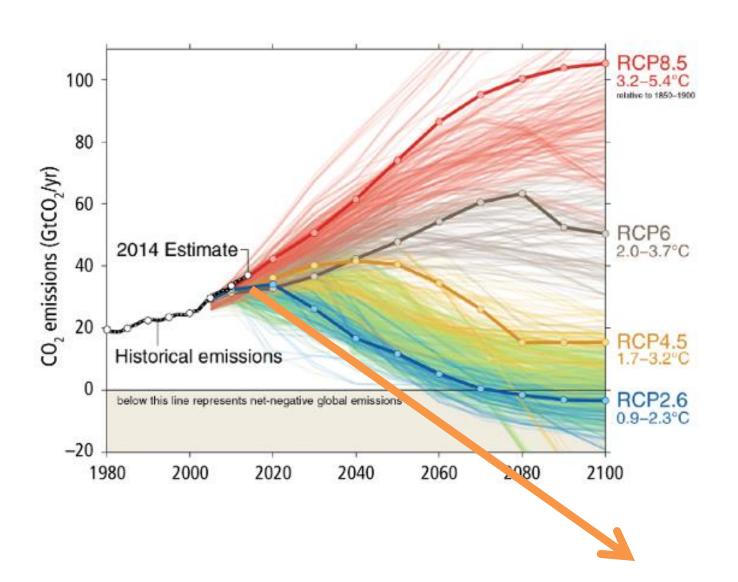
Jonas Helseth, Bellona Forum Kiev, 14<sup>th</sup> April 2016

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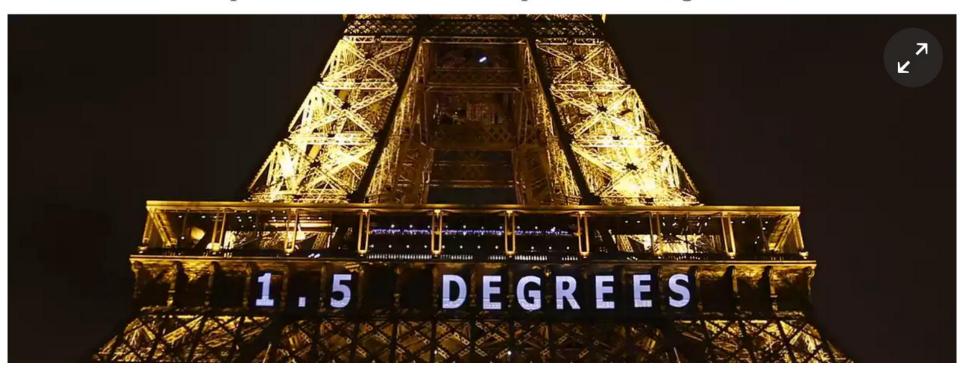


### 1.5 DEGREES, IS IT...?



### EU says 1.5C global warming target depends on 'negative emissions' technology

EU climate chief says that aspirational 1.5C target was put into Paris climate deal at insistence of 'most exposed countries' and will require new strategies



### TAKE YOUR PICK

A plethora of schemes have been proposed to extract carbon dioxide from the atmosphere. Here are nine, some more speculative than others.



Enhanced ocean productivity Marine photosynthesis and CO, drawdown from the atmosphere is increased, either by adding nutrients to promote phytoplankton growth in the open ocean or through seaweed cultivation in shallow seas.

#### TECHNIQUE

### Bioenergy with and storage

carbon capture (BECCS)

**HOW IT WORKS** 

Crops grown for the purpose are burnt in power stations (providing energy), and the resulting CO, is captured for secure long-term storage.



Enhanced weathering (using silicate rock)

Crushed olivine or other silicate rocks are added to soil surfaces or the ocean for chemical absorption of CO<sub>2</sub>. (Could help to reduce ocean acidification.)



Afforestation and reforestation

Large-scale tree plantations increase natural storage of carbon in biomass and forest soil.



Direct air capture (DAC)

Chemicals (or possibly low temperatures) are used to extract CO, from ambient air. Safe CO, transport and storage are subsequently required.



'Blue carbon' habitat restoration

The recovery of degraded or over-exploited coastal ecosystems that have a high potential for carbon storage, such as saltmarshes and mangroves.



Cloud treatment to increase alkalinity

Alkaline rain resulting from cloud treatments reacts with, and removes, atmospheric CO.



Biochar

Carbon from partly burnt biomass is added to soil, with potential for agricultural benefits.



**Building with** biomass

A massive increase in the use of biomass (straw and timber) as a building material removes carbon for decades or centuries.



# THE EU AND THE PARIS AGREEMENT



"With additional commitments we need additional legislation."

EU Climate & Energy Commissioner Arias Cañete,

14<sup>th</sup> December 2015



### FOLLOWING COP21: DOES THE EU NEED TO ADJUST ITS TARGETS?



The 'Carbon Budget' for the 1.5 degrees is spent by 2022...

### **THE EU DECISION PROCESS POST-COP21**

- ✓ The European Parliament (EP) reacts (with a resolution)
- ✓ The Commission (EC) provides an assessment of the Paris
  Agreement implications for EU policy
- ✓ The Climate Council (EU Climate Ministers) discuss the Commission assessment
- X The European Council (EU Heads of State) discusses this
- The Commission produces legislative proposals, which will be debated and adopted in the EP
- The European Council and the EP must then agree



## 2020 Package

**GHG Emissions Reduction** 



#### **Increase of Energy Efficiency**

20% compared to baseline scenario

Binding via Energy Efficiency Directive

# 2030 Framework Emission Trading System Burden Sharing

**GHG Emissions Reduction** 

40% compared to 1990

Binding via ETS and ESD methodology

10 % grid interconnection RED III

Increase of Renewable Energy Use

27% of total energy consumption

Only binding at EU level

Heating & Cooling Strategy

**Energy Efficiency Legislation** 

Increase of Energy Efficiency

27% compared to baseline scenario

National Engenery at Places 2030-50

Gas Strategy



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### Thank you!

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