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Bellona 2014

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Re-Industrialisation of Ukraine for the 21st century

Kiev, 28th February 2017

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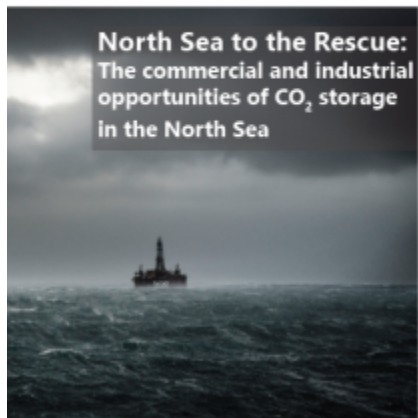
Scaling the CO₂ storage industry: A study and a tool

A study of the CO₂ storage industry in Europe to 2050 – and a tool to measure its feasibility, the requirements and the bottlenecks.

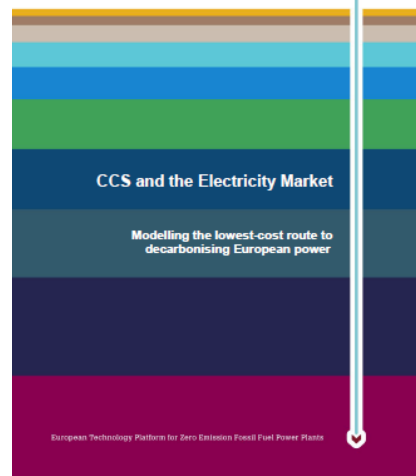


November 2014

Kathleen Winkler - k.winkler@bellona.org



North Sea to the Rescue: The commercial and industrial opportunities of CO₂ storage in the North Sea



CCS and the Electricity Market

Modelling the lowest-cost route to
decarbonising European power

European Technology Platform for Zero Emission Fossil Fuel Power Plants



BELLONA REPORT 2013

Traditional and Integrated Aquaculture

Today's environmental challenges and solutions of tomorrow

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MANUFACTURING OUR
FUTURE: INDUSTRIES,
EUROPEAN REGIONS
AND CLIMATE ACTION
CO₂ Networks for the Ruhr, Rotterdam,
Antwerp & the greater Oslo Fjord



WHERE WILL THE
ENERGY STORAGE
MEGA TREND LEAD
US?

Energy, Technology, Market and Service Transition



Now



Bloomberq



~ 2050

Export focus

New Technologies

New Markets

National advantages

Awareness of new
opportunities

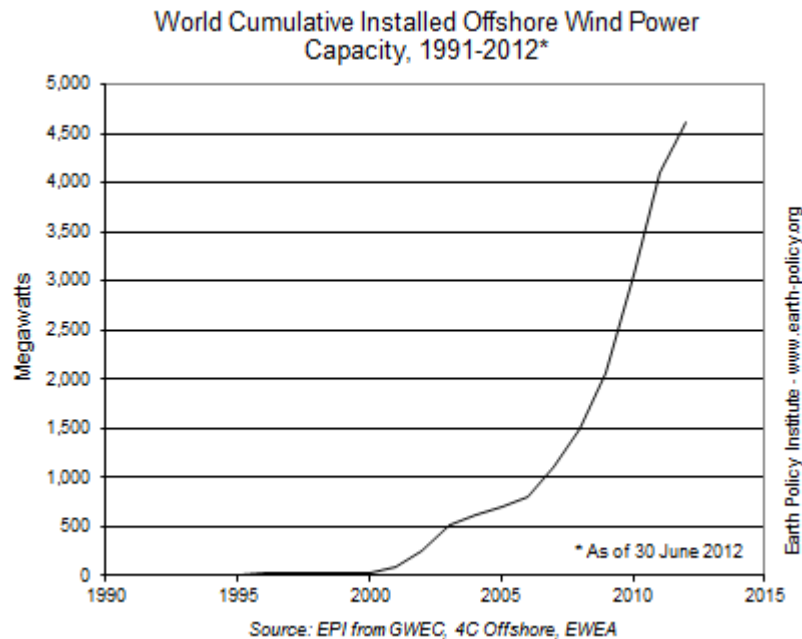
Competition and risk

Near term actions Now to 2025

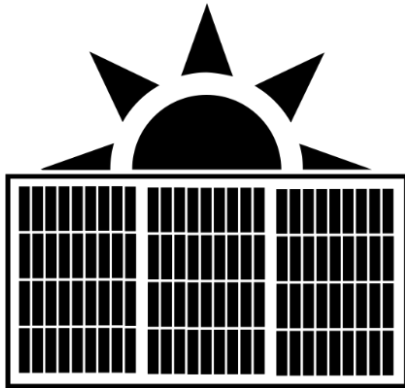




Wind Turbines



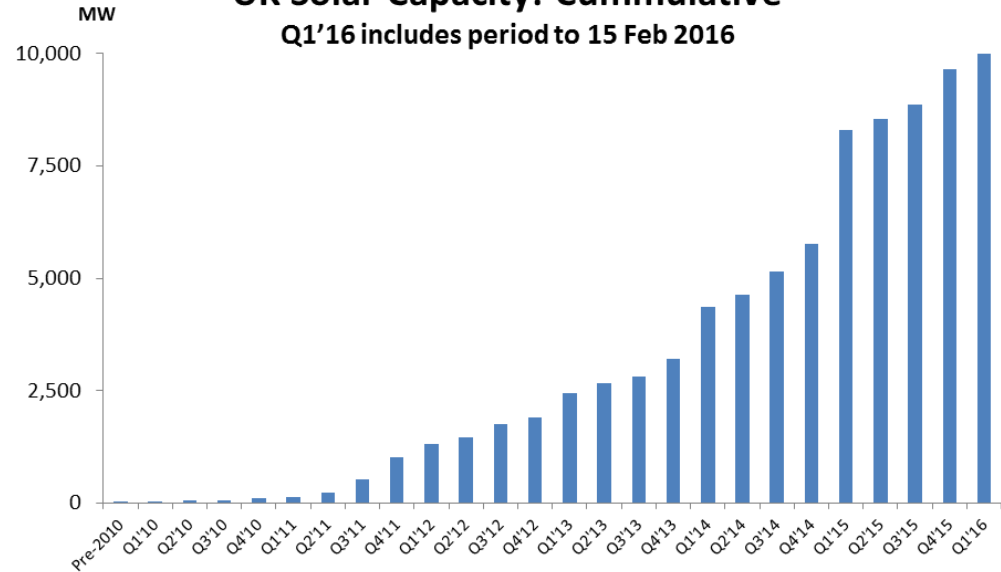
EU energy 2050 roadmap
anticipates ~1,000 GW of
wind power



Solar

UK Solar Capacity: Cumulative

Q1'16 includes period to 15 Feb 2016

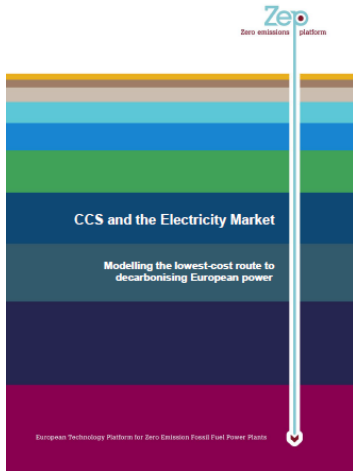


© Solar Media Ltd, 2016

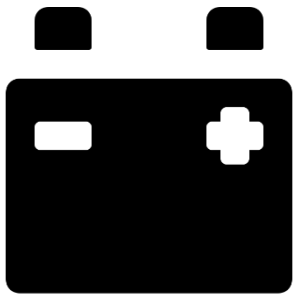
Sources: Solar Intelligence research, 15 Feb 2016



SOLAR
INTELLIGENCE



Solar Photovoltaic covering
~1+ % of Europe



**Batteries
Elector mobility &
Energy Storage**

BELLONA
E U R O P A

THIS IS THE ENORMOUS GIGAFACTORY, WHERE TESLA WILL BUILD ITS FUTURE

www.wired.com

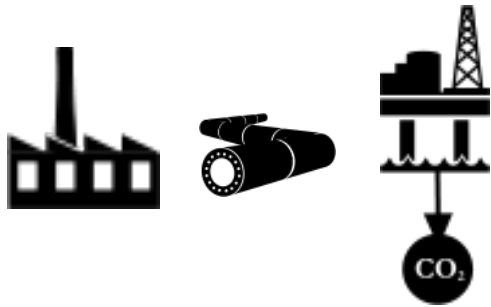


Tesla Giga Factory under construction – Largest building on earth

Finland
Norway
Belgium



Ukraine has reserves of
Lithium – essential for
modern batteries



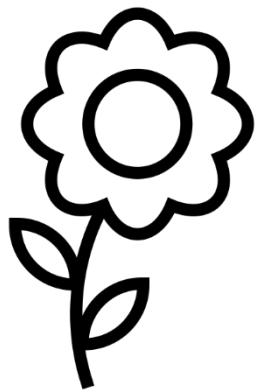
**Carbon
Capture and
storage**



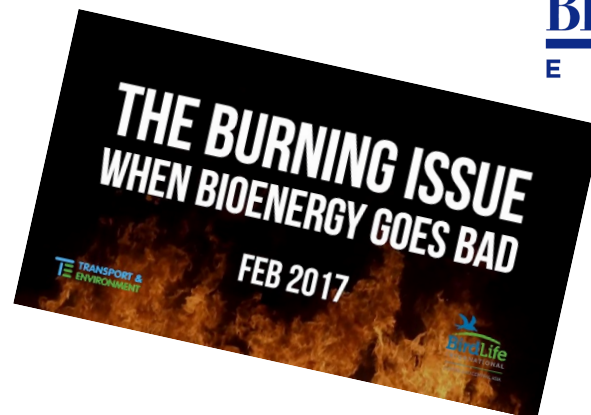
Chemical capture process



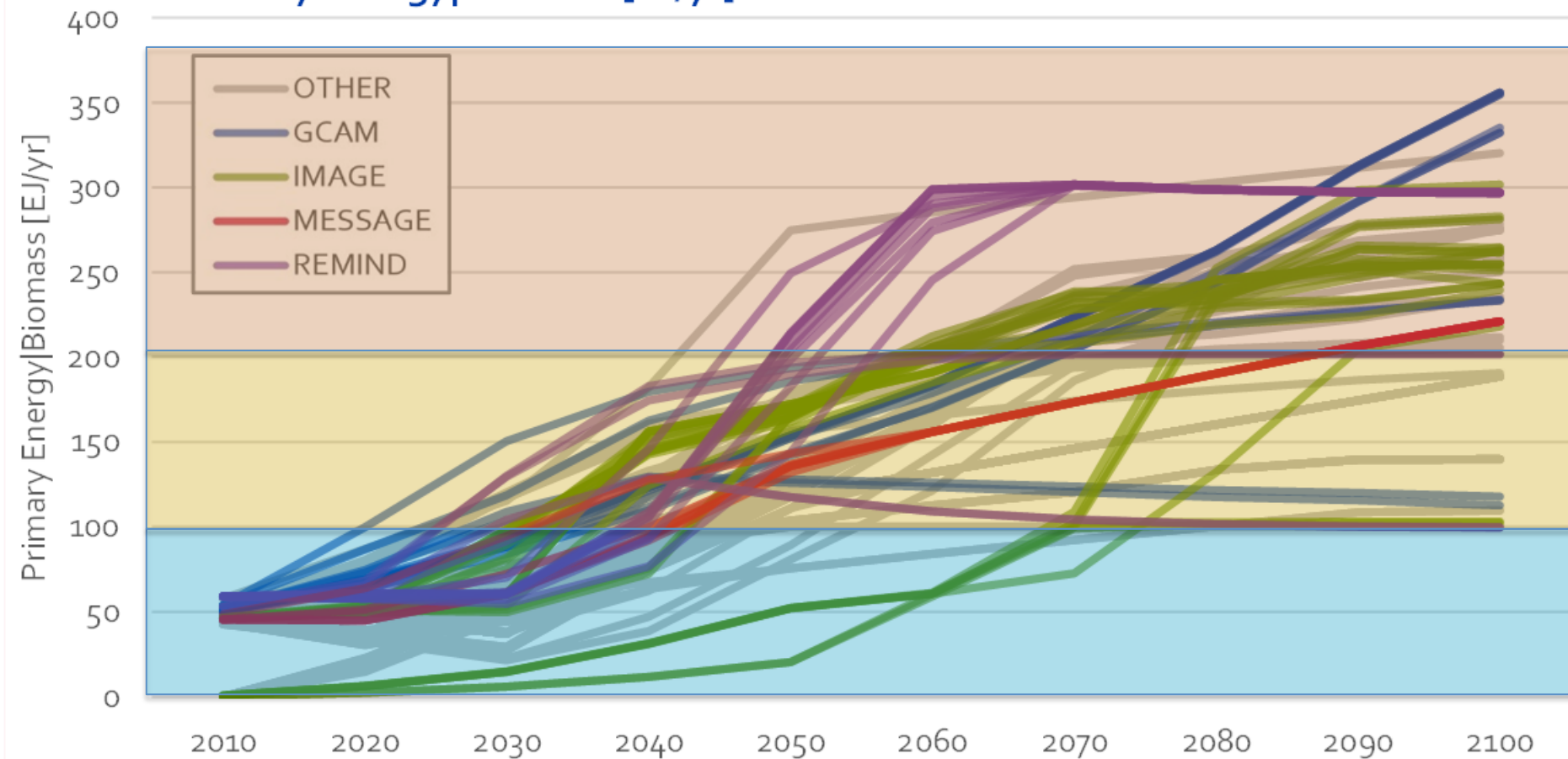
CO₂ transport infrastructure



Biomass Sustainability Requirements



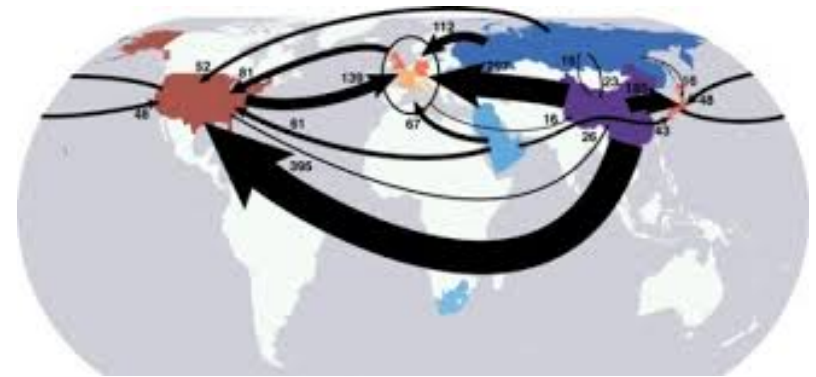
Primary Energy|Biomass [EJ/yr]



Changing Trade Restriction on Imbedded Carbon

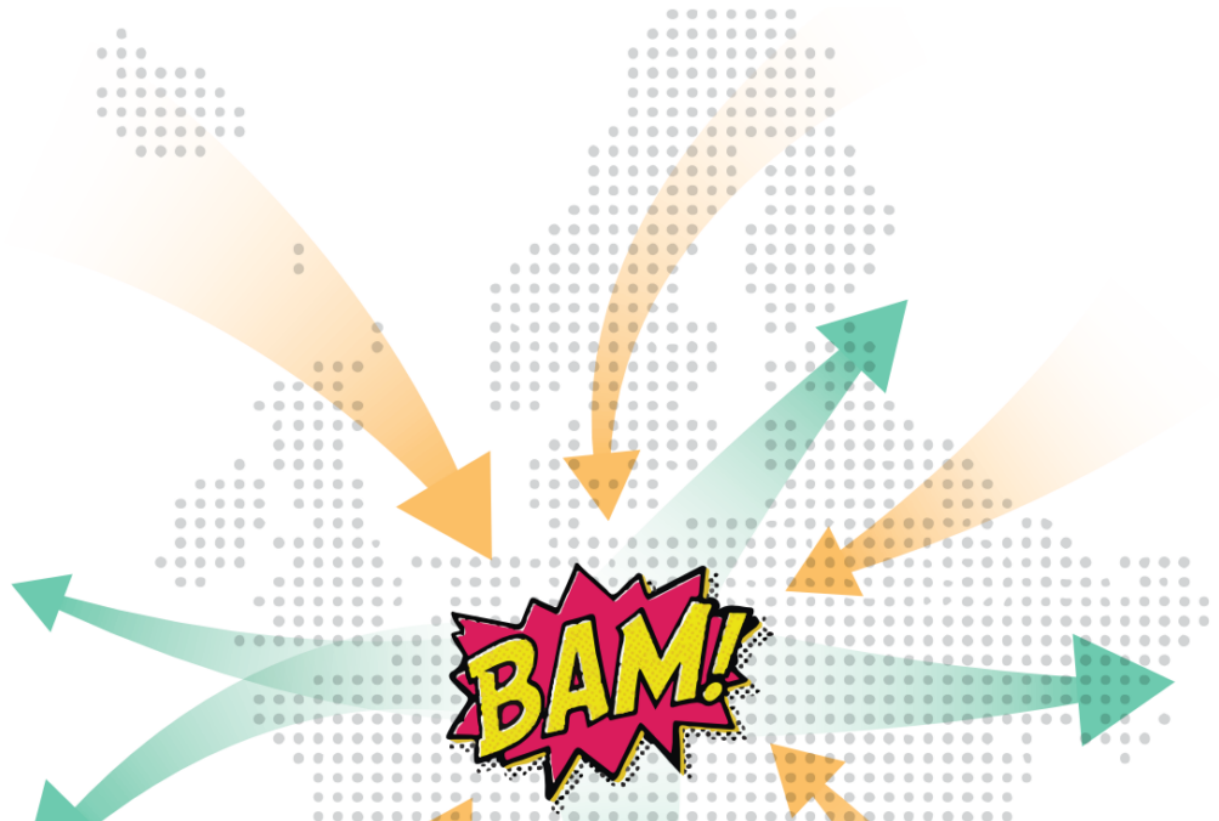
Border Adjustment Mechanism (BAM)

A tax on imported goods (Cement) with high CO₂ emissions



European Parliament

WORLD TRADE
ORGANIZATION





Technological

Financial

Regulatory

Launched
December – the
Dutch are starting
to look at
decarbonisation on
the system level
Energieagenda

Naar een CO₂-arme energievoorziening



Ministerie van Economische Zaken

