The Post-COP21 World: Rethoric vs. Action

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From pollution to solution!
Good COP/Bad COP?
RESULT of more than 23 YEARS of international attempts under the UN to forge COLLECTIVE ACTION on global climate change
CDR technologies such as BECCS are fundamental to many scenarios that achieve low CO2eq concentrations.
“achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.”
Toward COP21 – the shift in approach

- A voluntary approach – can it work?
Toward COP21: voluntary pledges

• EU REDs (Renewable Directives): 2001 vs. 2009

• Can this be extrapolated to climate pledges?
Finance & technology are the keys

- India: 300M without energy access
- South Africa: constitutionally obliged
- EU as example: 2030 Target of 40 %
- Modernisation Fund: the “Polish bribe”
- We Must Bring Down Cost of Technology
THAT'S THE IDEA BEHIND THE GREEN CLIMATE FUND

A United Nations fund set up in 2010 to:

- RAISE MONEY FROM RICH COUNTRIES
- WITH A STATED GOAL OF $100 BILLION PER YEAR BY 2020
- AND TRANSFER THAT MONEY TO POORER COUNTRIES TO HELP PAY FOR CLIMATE ACTION.
“Many models cannot reach about 450 ppm CO2eq concentration by 2100 in the absence of CCS”

“CDR technologies such as BECCS are fundamental to many scenarios that achieve low-CO2eq concentrations”
**IPCC: No CCS ≈ 2 x cost to attain 450ppm / 2 degree target**

<table>
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<tr>
<th>Consumption losses in cost-effective scenarios¹</th>
<th>Increase in total discounted mitigation costs in scenarios with limited availability of technologies</th>
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<tbody>
<tr>
<td>[ % reduction in consumption relative to baseline ]</td>
<td>[% increase in total discounted mitigation costs (2015–20100) relative to default technology assumptions]</td>
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<tr>
<td>2100 Concentration [ppm CO₂,eq]</td>
<td>2030</td>
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<tr>
<td>450 (430–480)</td>
<td>1.7 (1.0–3.7) [N: 14]</td>
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<tr>
<td>500 (480–530)</td>
<td>1.7 (0.6–2.1) [N: 32]</td>
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<tr>
<td>550 (530–580)</td>
<td>0.6 (0.2–1.3) [N: 46]</td>
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<tr>
<td>580–650</td>
<td>0.3 (0.0–0.9) [N: 16]</td>
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¹: Percentage points for consumption losses are based on scenario average for 2100.
The EU climate/energy ‘trilemma’
Indigenous fossil energy resources in Europe is in large part coal and lignite.

Together they constitute more than 80% of EU fossil reserves.

Poland reserves: Hard coal ≈ 19.1 billion tonnes
Mineable lignite ≈ 1.6 billion tonnes.
Due to the large climate cost of coal, any significant use of the fuel is inseparable from Carbon Capture and Storage (CCS). The development and deployment of CCS technologies in Europe is therefore imperative should Europe utilise its largest indigenous energy source.

From Bellona Europa’s input to Commission on the EESS:

"Coal and lignite’s CO₂ emissions mean that they only have a long-term future in the EU if using Carbon Capture and Storage (CCS). CCS also offers the potential to further improve gas and oil recovery that would otherwise remain untapped. Therefore, bearing in mind the rather limited uptake of CCS to date, further efforts in research, development and deployment should be made in order to fully benefit from this technology."

World’s richest sovereign wealth fund
NORWAY DUMPS
COAL & TAR SAND COMPANIES
BECAUSE OF HIGH RISK TO CLIMATE

Text of the EESS
The window for action is rapidly closing

65% of the carbon budget compatible with a 2°C goal is already used.

NB: this is with a probability greater than 66% to stay below 2°C.

Total Carbon Budget: 2900 GtCO₂

Amount Used 1870-2011: 1900 GtCO₂

Amount Remaining: 1000 GtCO₂

NB: Emissions in 2011: 38 GtCO₂/yr

IPCC AR5 Synthesis Report
90% less CO₂

Seeing is believing
ADM ethanol production in Decatur, Illinois with CCS
1 million tonnes CO$_2$ captured and permanently stored
Energy recovery at Klemetsrud in Oslo, Norway with CCS?

Potential capture of 300,000t CO₂ per year.
focus on solutions

problems
Statoil’s contribution.
= Norway’s...?

“It’s a huge challenge to be able to deliver enough oil and gas in the two degree scenario”

Eirik Wæreness
Chief Economist and Vice President, Statoil
A Little Less Conversation

A Little More Action, Please

• We all know the oil boom is over. We have to create new industries for future welfare.

• The people in THIS room are the ones paying the price for inaction and failure.

• ...but also the ones to reap the benefits from success!

• We aim to build a North Sea CCS consortium.

• We ask Statoil to stop seeing CCS as a threat and/or an obligation.

• It is a great opportunity for a future prosperous Norwegian North Sea shelf and your industry.
Thank you!

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