

Oljeprisfallet og det grønne skiftet

Oslo, 7. mai 2015



Norsk Klimastiftelse

NORWEGIAN CLIMATE FOUNDATION

Anders Bjartnes, redaktør
Norsk Klimastiftelse/Energi og Klima

Harde tider i fossil energi



Kull- og oljeselskapene rammes av lavere priser
Klima- og karbonrisiko har kommet for å bli

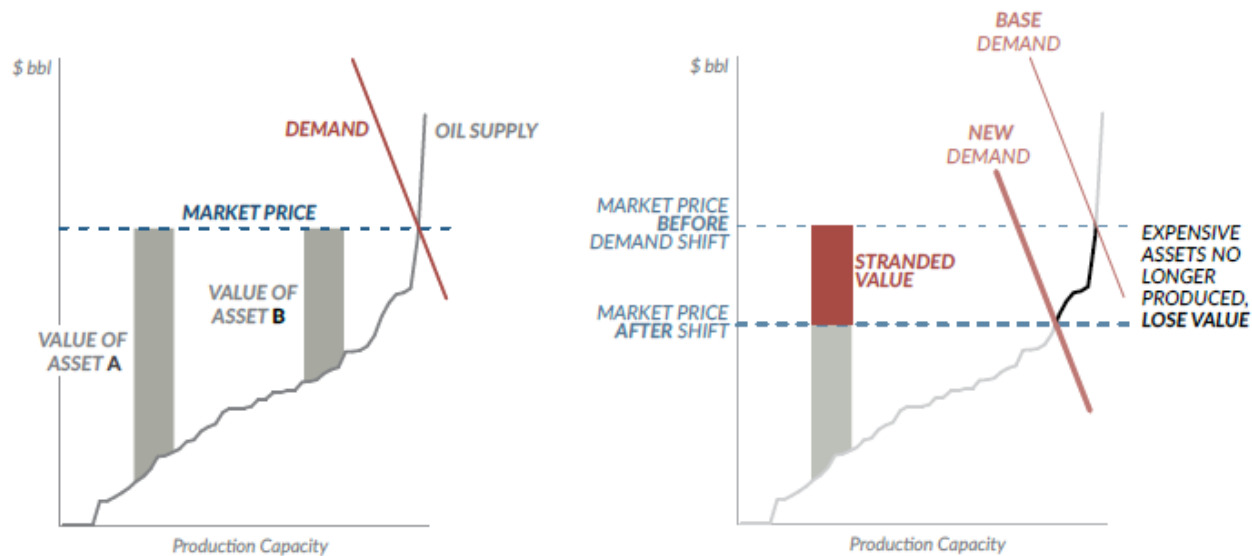


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Big oil taper enorme inntekter

Figure 1 and Figure 2: Asset value depends on production costs and market price



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Voldsomme kutt i investeringer

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Energy

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3:05pm **OIL & GAS**

US loss suppresses Chevron earnings



Fall in crude prices continues to hit North American production

- Chevron to offload Caltex Australia stake
- Chevron expects slowdown in output growth
- Chevron chief says oil price to rebound
- Chevron drops Arctic drilling plan

10:03pm

Church of England blacklists fossil fuels

Church to sell £12m of holdings to send signal on climate change

- EU carbon market reforms back on table
- California raises hopes for climate talks

6:52pm **OIL & GAS**

Energy earnings run dry in Americas

Production operations of largest oil companies driven into loss

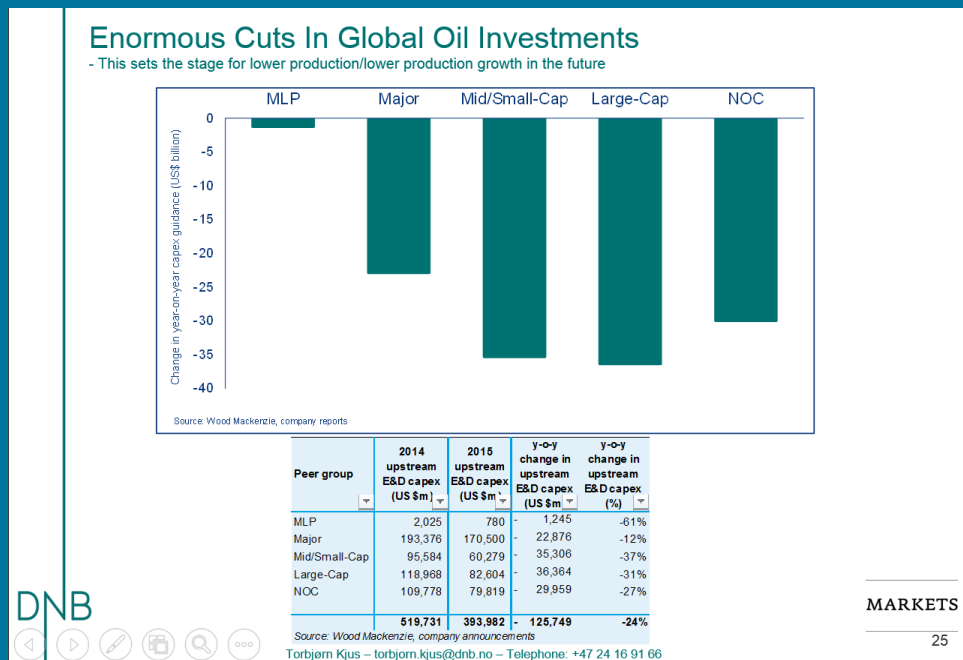
- Statoil takes \$4bn writedown on US assets
- Low oil price weighs on Exxon and Conoco

6:42pm **GLOBAL ECONOMY**

Saudis burn through foreign reserves

King Salman funds public sector salaries and large-scale projects

- FT View Salman makes play in Saudi game of thrones
- Saudi Arabia replaces crown prince



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Hva så med fornybar energi?

27 February 2015
Clean Technology
Solar

Figure 22: Fuel Cost ONLY Per kWh generated from Oil

Cost/Barrel	Cost/kWh	Cost/Barrel	Cost/kWh
\$30	\$0.06	\$80	\$0.15
\$40	\$0.08	\$90	\$0.17
\$50	\$0.09	\$100	\$0.19
\$60	\$0.11	\$110	\$0.21
\$70	\$0.13	\$120	\$0.23

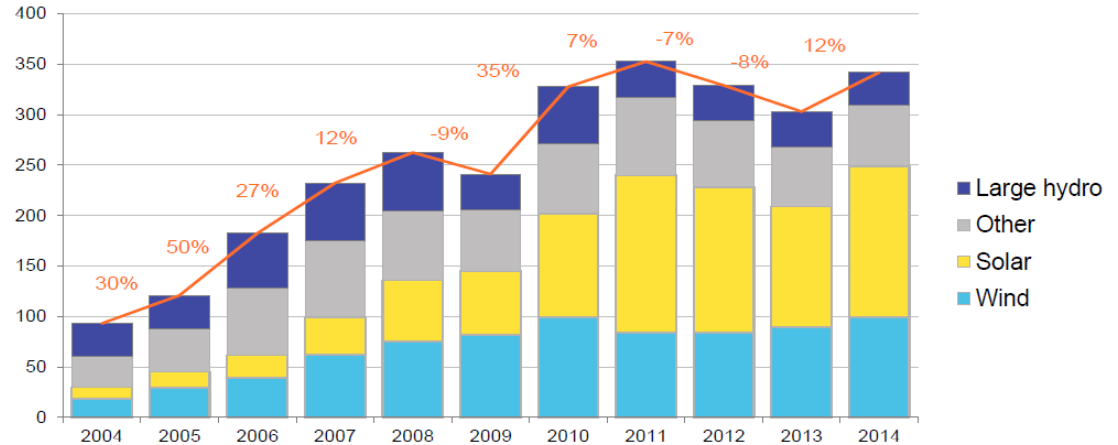
Source: EIA, Deutsche Bank

Actual Dispatch Curve in The US

Furthermore, even the above estimates drastically understate the actual incremental cost of electricity generated from oil. Shown below is the actual estimated supply curve in New England (in the United States) for capacity available during summer 2013.

NEW INVESTMENT IN CLEAN ENERGY 2004-14 (\$BN)

Bloomberg
NEW ENERGY FINANCE



Note: Total values include estimates for undisclosed deals. Includes corporate and government R&D, and spending for digital energy and energy storage projects (not reported in quarterly statistics), as well as a BNEF estimate for large hydro investment.

Source: Bloomberg New Energy Finance

Michael Liebreich, New York, 14 April 2015

@MLiebreich

#BNEFSummit

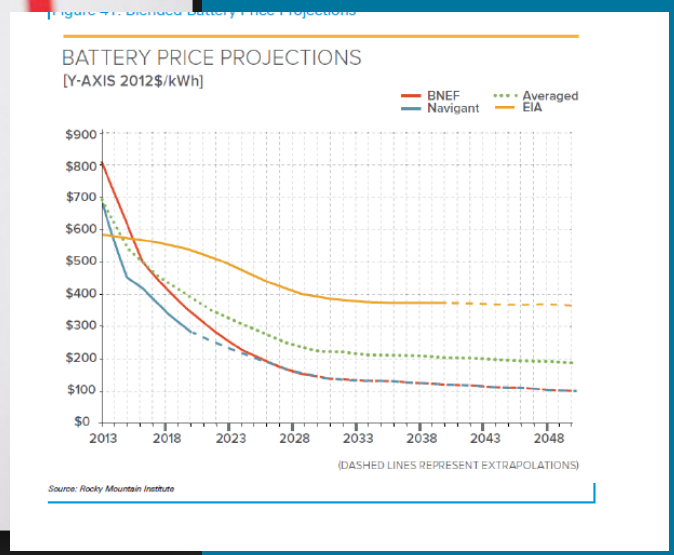
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Sol + batterier = sant



Klima - en «eksistensiell trussel»

The Telegraph

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G20: fossil fuel fears could hammer global financial system

Top energy watchdog says two thirds of all assets booked by coal, oil and gas companies may be worthless under the 'two degree' climate deal

FINANCIAL TIMES

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ft.com/globaleconomy

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November 19, 2014 8:00 pm

Energy groups face 'existential' climate threat, says ex-BP chief

Pilita Clark in London Author alerts



Lord Browne's brief was to inject more business acumen into the civil service

Energy and mining companies are ignoring the "existential threat" from [climate change](#) and must change the way they operate, the former head of BP warns.

The intervention by Lord Browne, one of the energy world's most influential voices, comes as coal, oil and gas companies face mounting [investor](#) criticism that they are too complacent about the risk of tougher [action](#)

to curb global warming.

Strategien: Kan «big oil» oppnå lønnsom vekst *uten* å satse på andre ting i tillegg til olje og gass?



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Offshore vind - et hav av muligheter

Offshore vind vil være en viktig komponent

Norge: Tenke mer næringspolitikk

Statkraft/Statoil/DNV + leverandør-
industri – med Oljefondet i ryggen

Trusler: Lange ledetider, store
enkeltinvesteringer



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Trusselen fra det grønne skiftet



- Fornybart - Fossilt
- Lav CO2 - Høy CO2
- Desentralisert - Sentralisert
- Mange små - Få store
- Kort ledetid - Lang ledetid
- Høy vekst - Stagnasjon
- Politisk støtte - Politisk motbør



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