



# Greening the GPF Global

@mariusholm



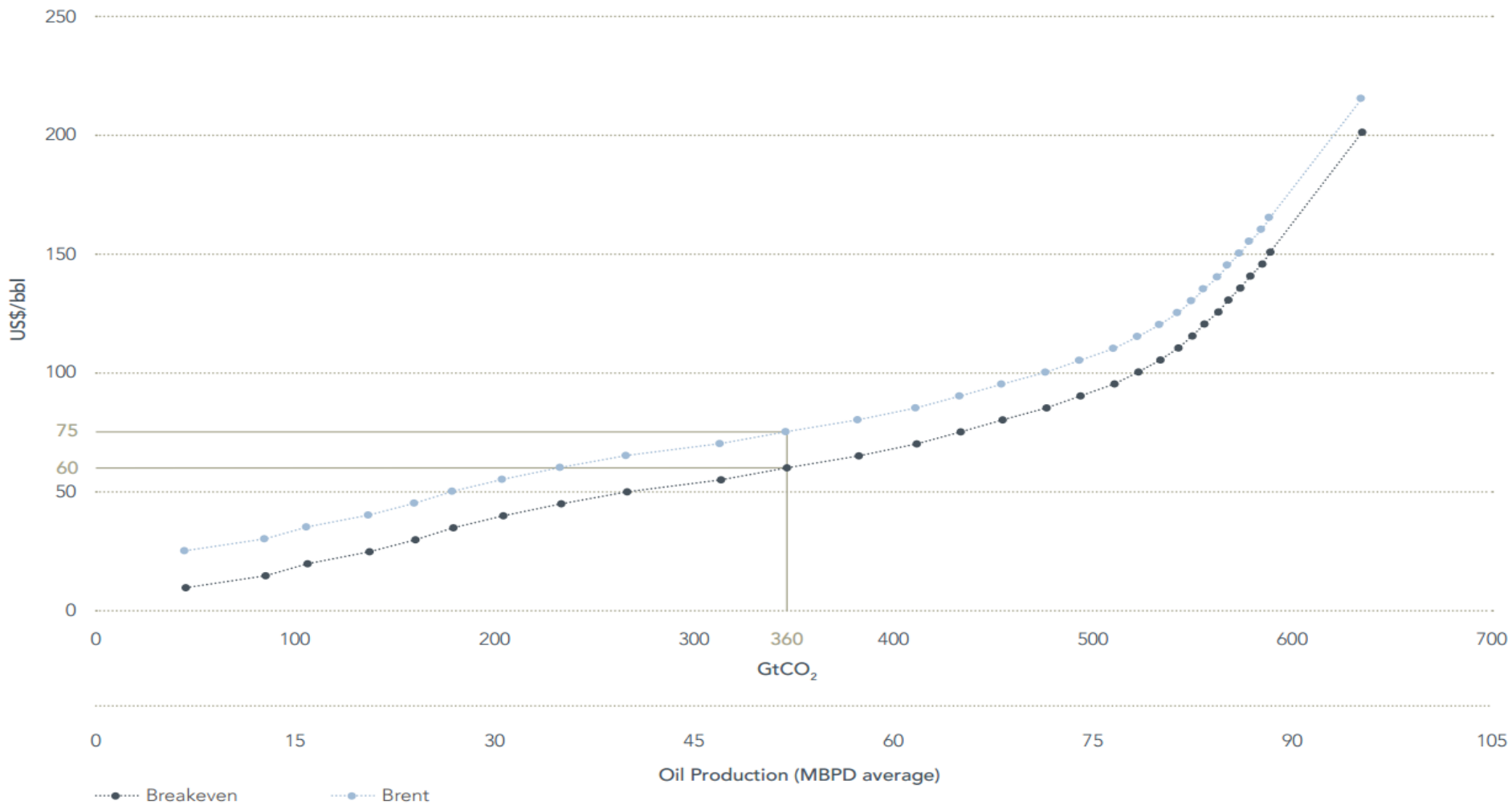
ZERO 



**CO<sub>2</sub>-reserves:  
3000 gigatonn**

**Budget:  
900  
gigatonn  
CO<sub>2</sub>**

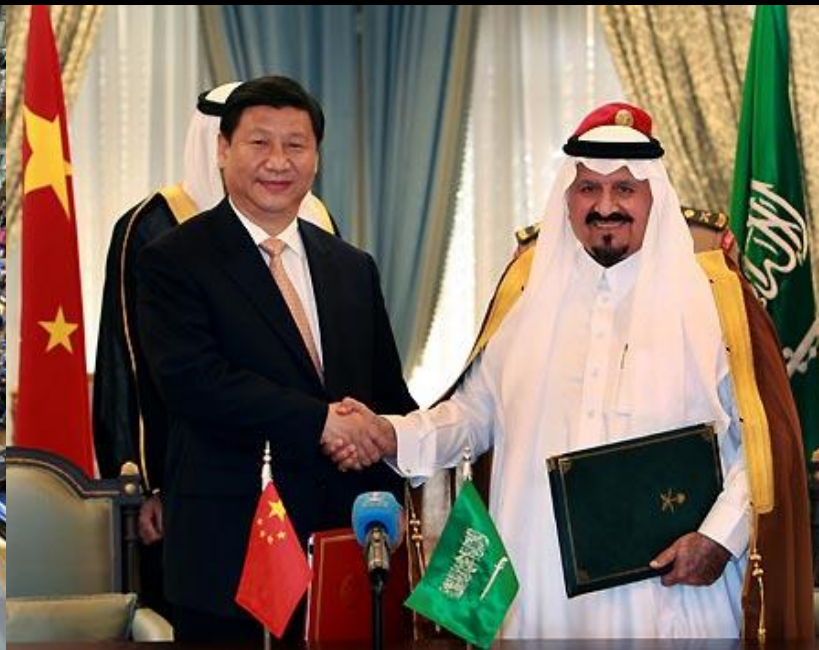




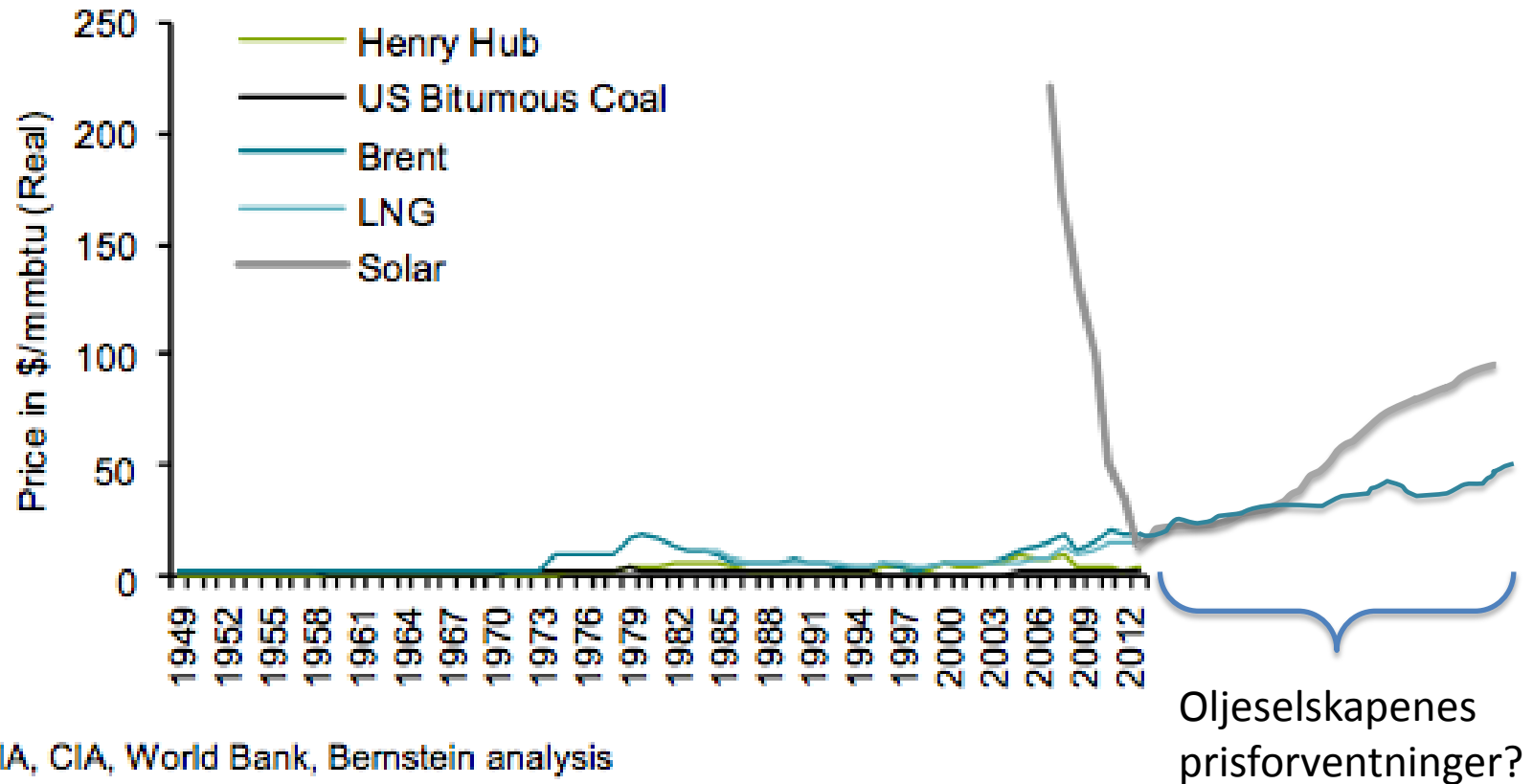
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# Limitations on fossil fuels? «not likely»



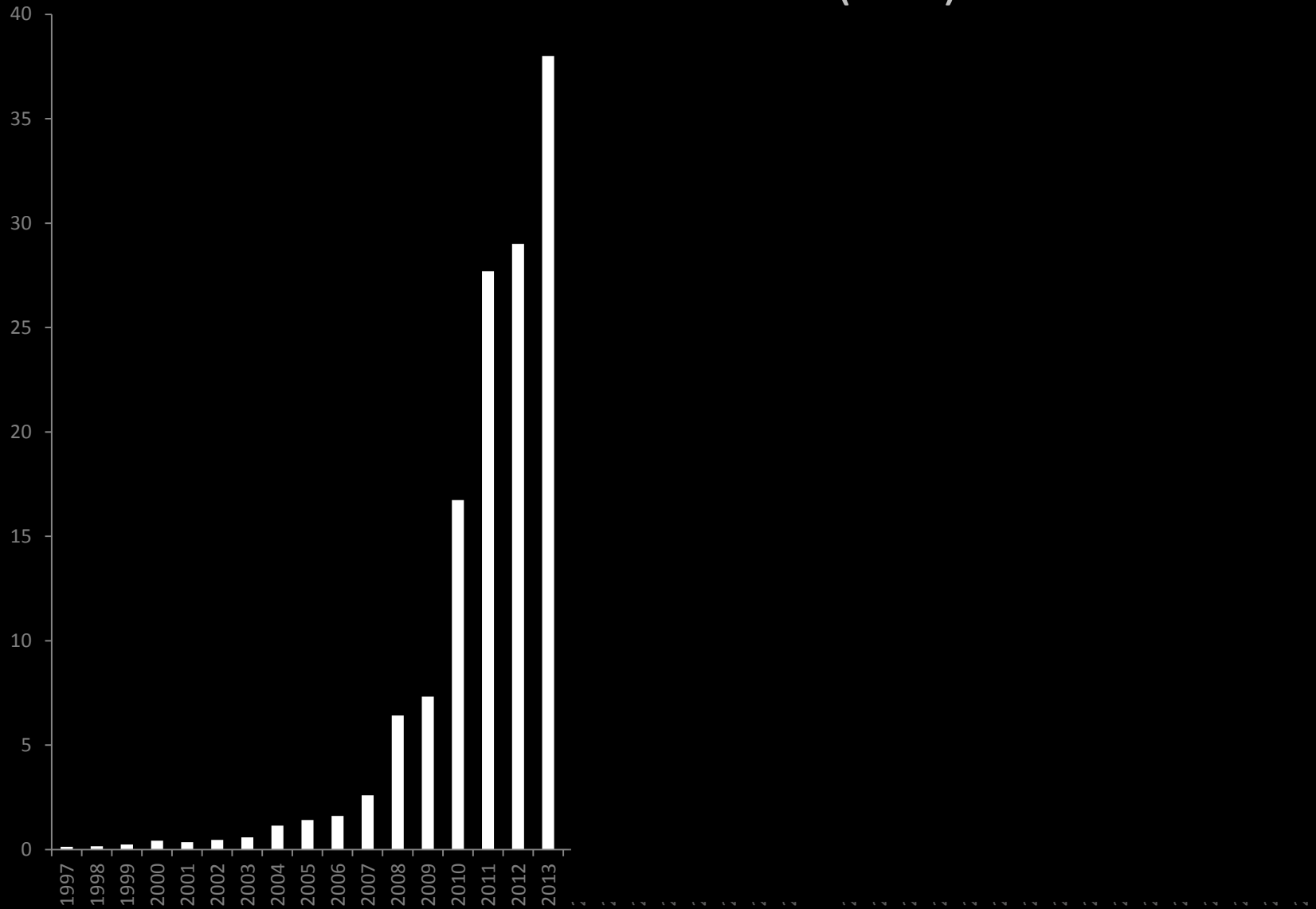
# But what is likely in energy markets?



Source: EIA, CIA, World Bank, Bernstein analysis



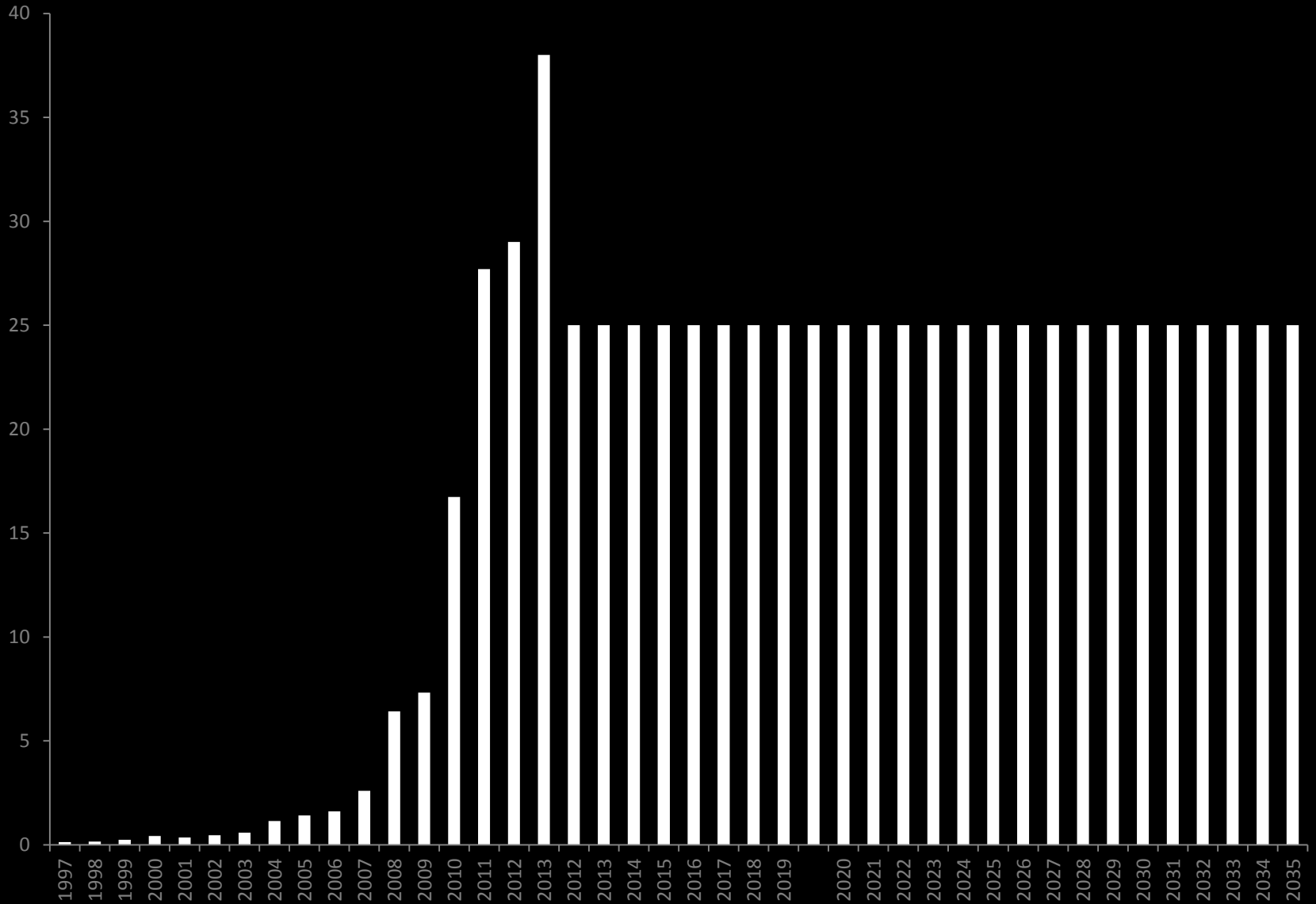
# Annual installation of solar PV (GW)



ZERO

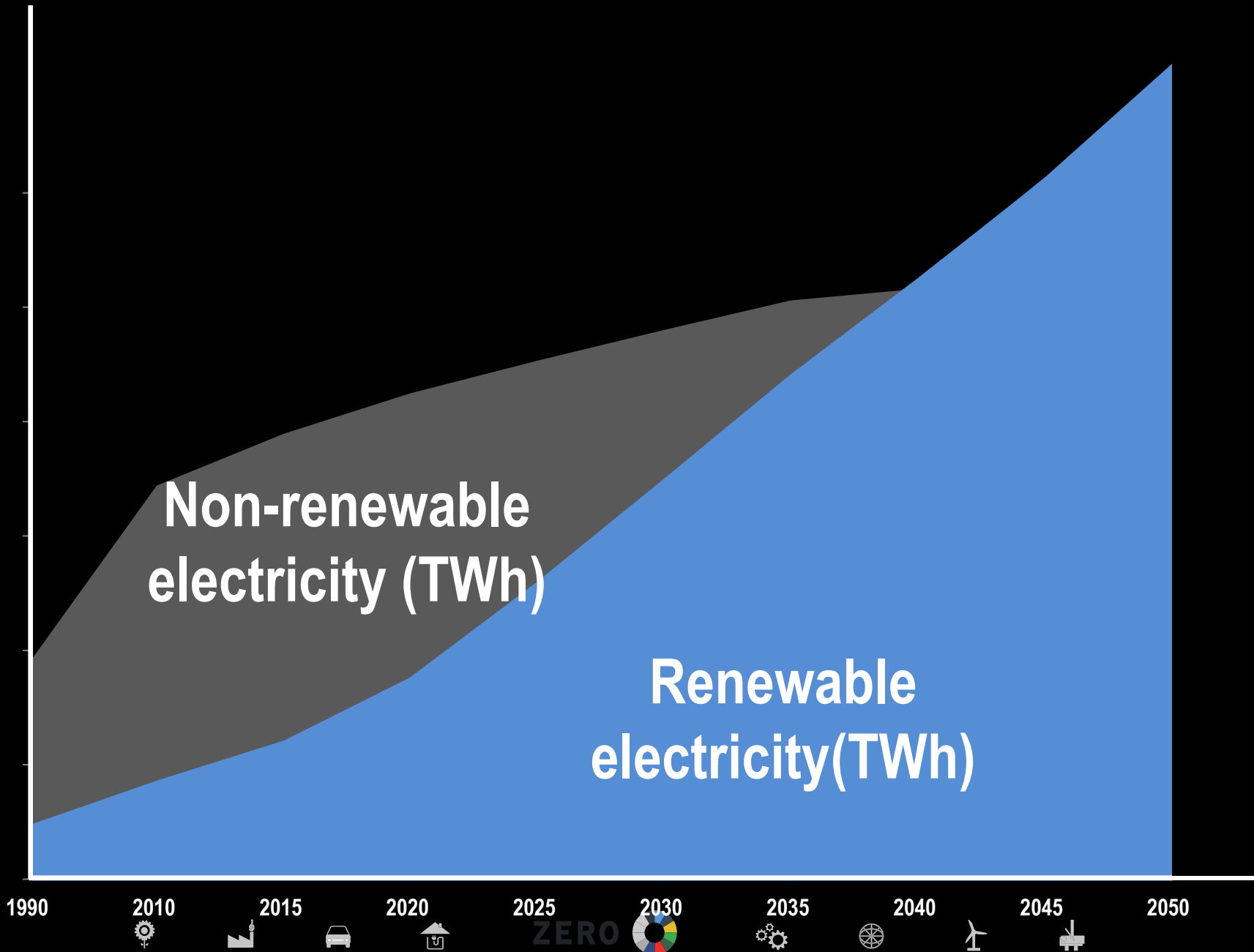


# Annual installation of Solar PV – and IEA forecast



ZERO





**Non-renewable  
electricity (TWh)**

**Renewable  
electricity (TWh)**

1990

2010

2015

2020

2025

2030

2035

2040

2045

2050



**ZERO**





# Battery prices may fall from \$750 to \$125 per kwh



ZERO 





ZERO



# The green effect on shareholder values

■ XETRA DAX (German blue-chip index) ■ E.ON SE ■ RWE AG



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ZERO



7000  
billions



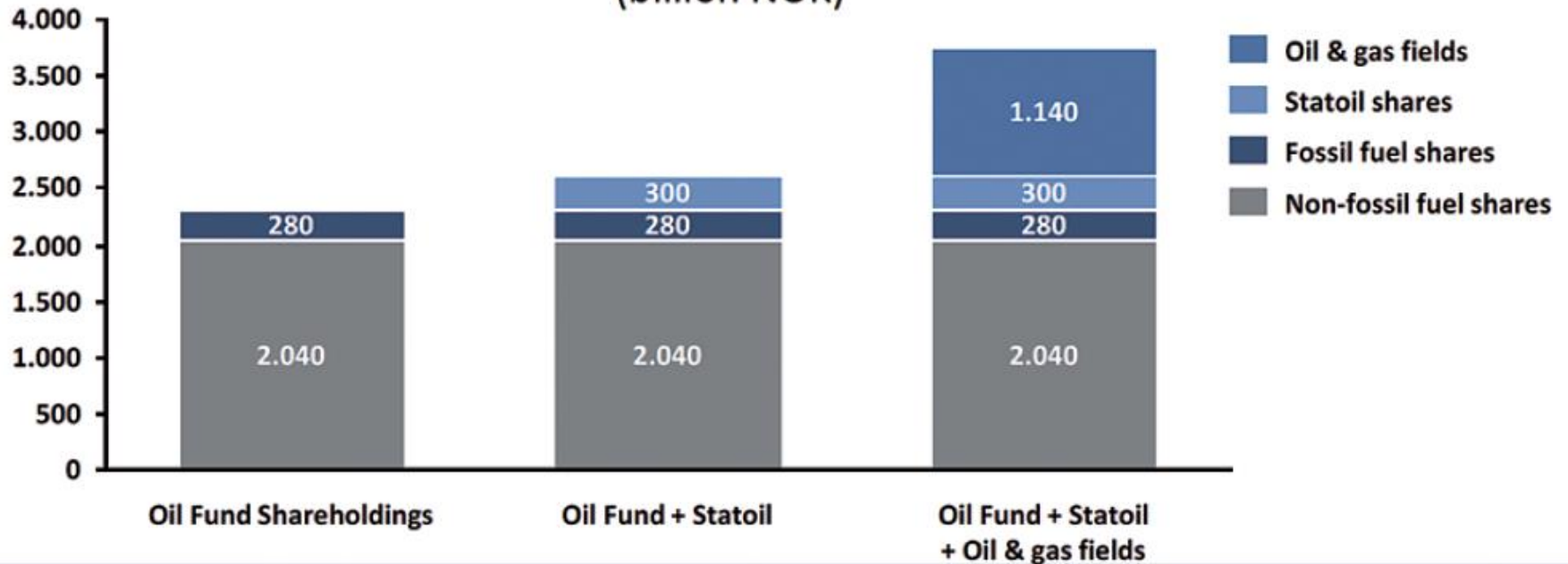
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**1 % renewable**

**25 % fossile**

## Norway's fossil fuel shareholdings (billion NOK)



Source: NBIM, Norway Central Bank, Statoil, Wood Mackenzie



The input was  
hydrocarbons



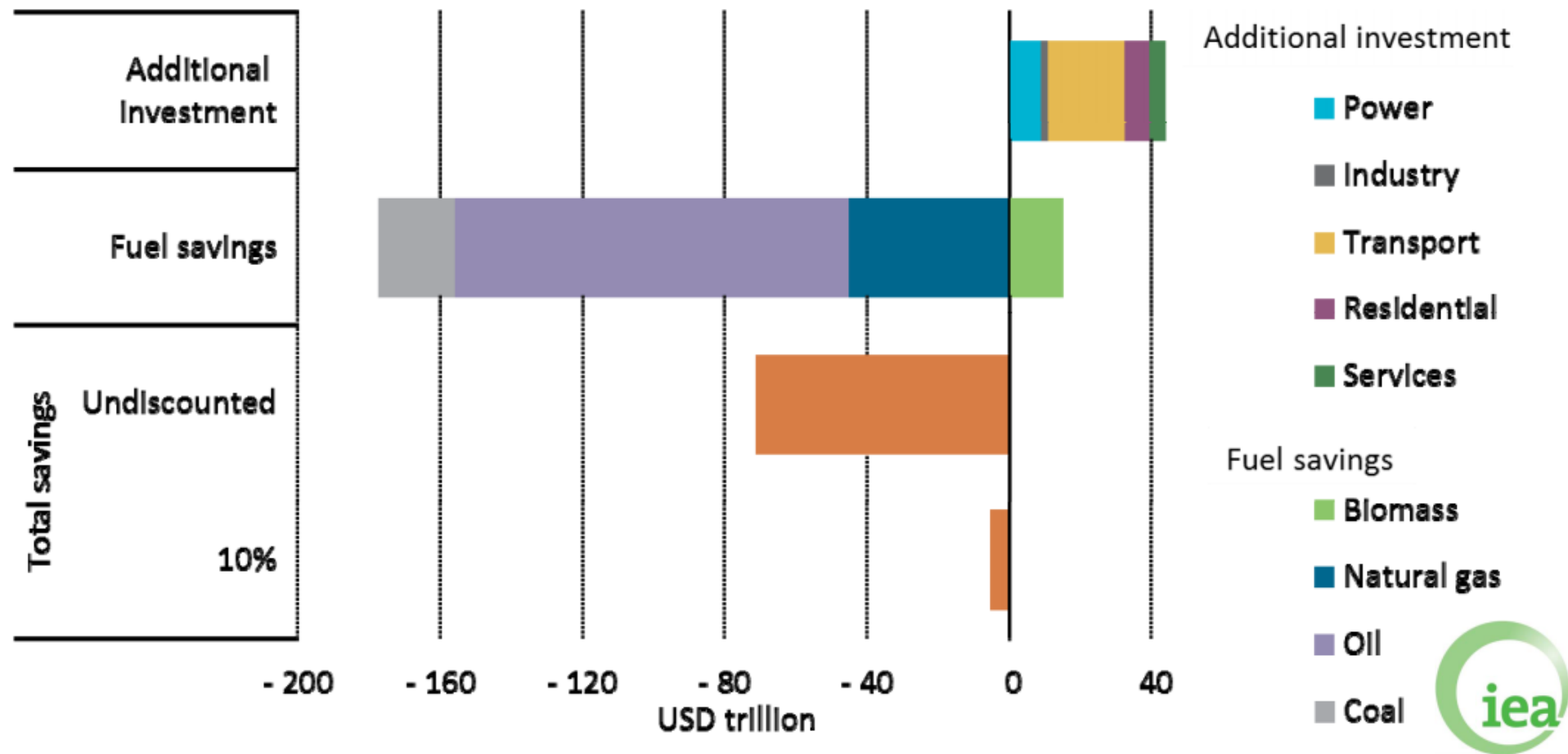
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**The input will be  
capital**







ZERO





ZERO 



# How could a fund make a difference?

## Active governance

- Where the business model needs adjustments



## Divestment

- Where the business model must die



ZERO



# Is coal lifting people out of poverty?



ZERO 



# Maybe clean, decentralized power is better?



ZERO





DET KONGELIGE  
FINANSDEPARTEMENT

# Meld. St. 19

(2013–2014)

Melding til Stortinget

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Forvaltningen av  
Statens pensjonsfond i 2013



ZERO

