

Orku- og umhverfismál Breytt heimsmynd

Sigurður Friðleifsson

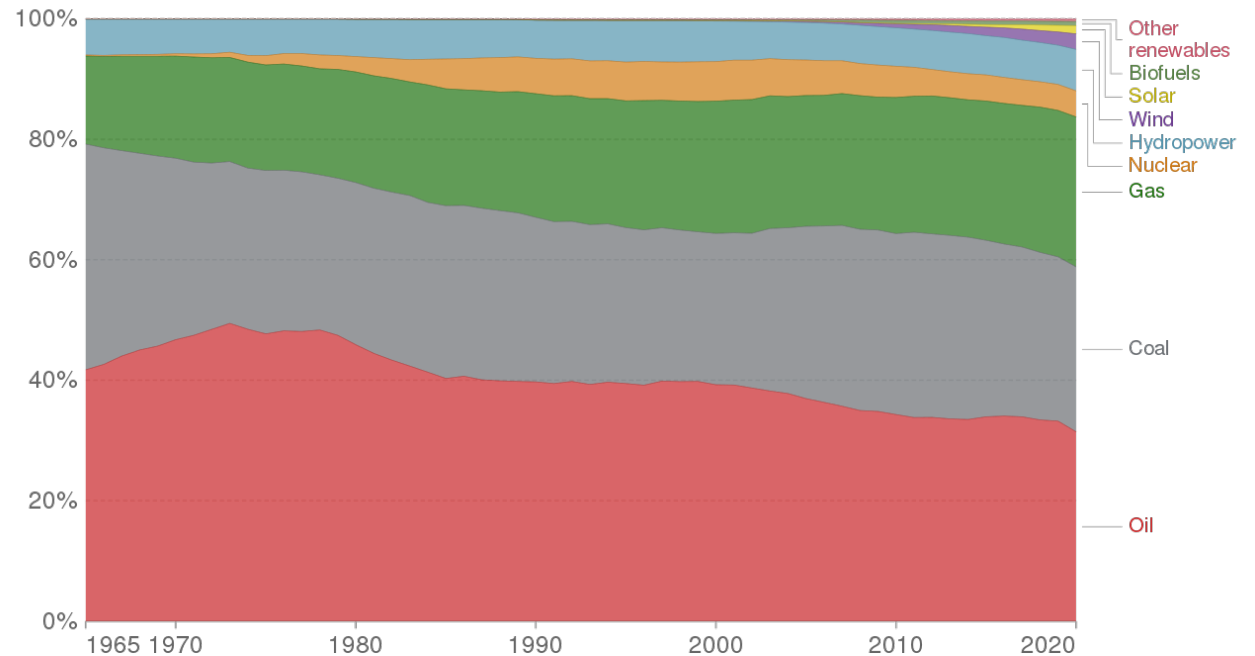
Hver er staðan og hvað hefur breyst?

- 80% af orkubörf heims er mætt með ósjálfbæru jarðefnaeldsneyti
- Jarðefnaeldsneyti er endanleg auðlind sem klárast.
- Vandamálið er að það er of mikið til

Energy consumption by source, World

Primary energy consumption is measured in terawatt-hours (TWh). Here an inefficiency factor (the 'substitution' method) has been applied for fossil fuels, meaning the shares by each energy source give a better approximation of final energy consumption.

Our World
in Data

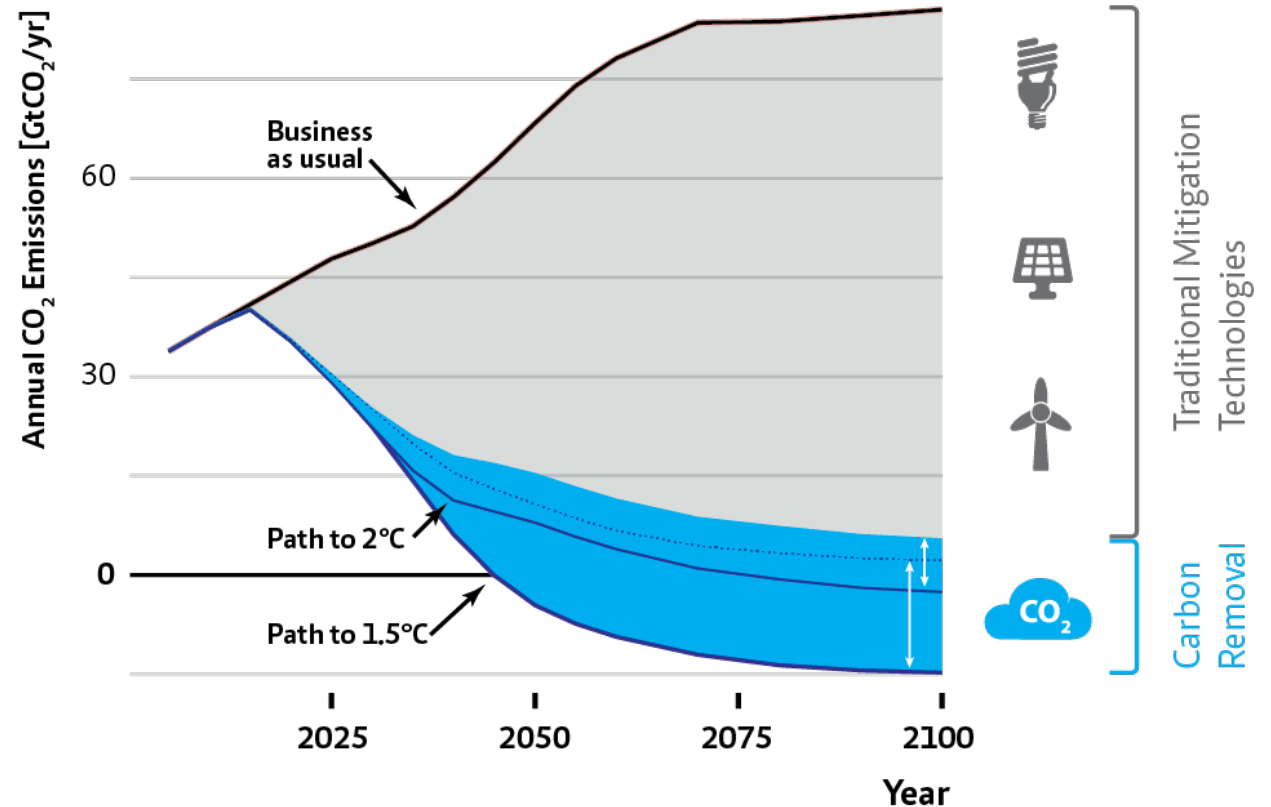


Source: BP Statistical Review of World Energy
Note: 'Other renewables' includes geothermal, biomass and waste energy.

Breyting 1

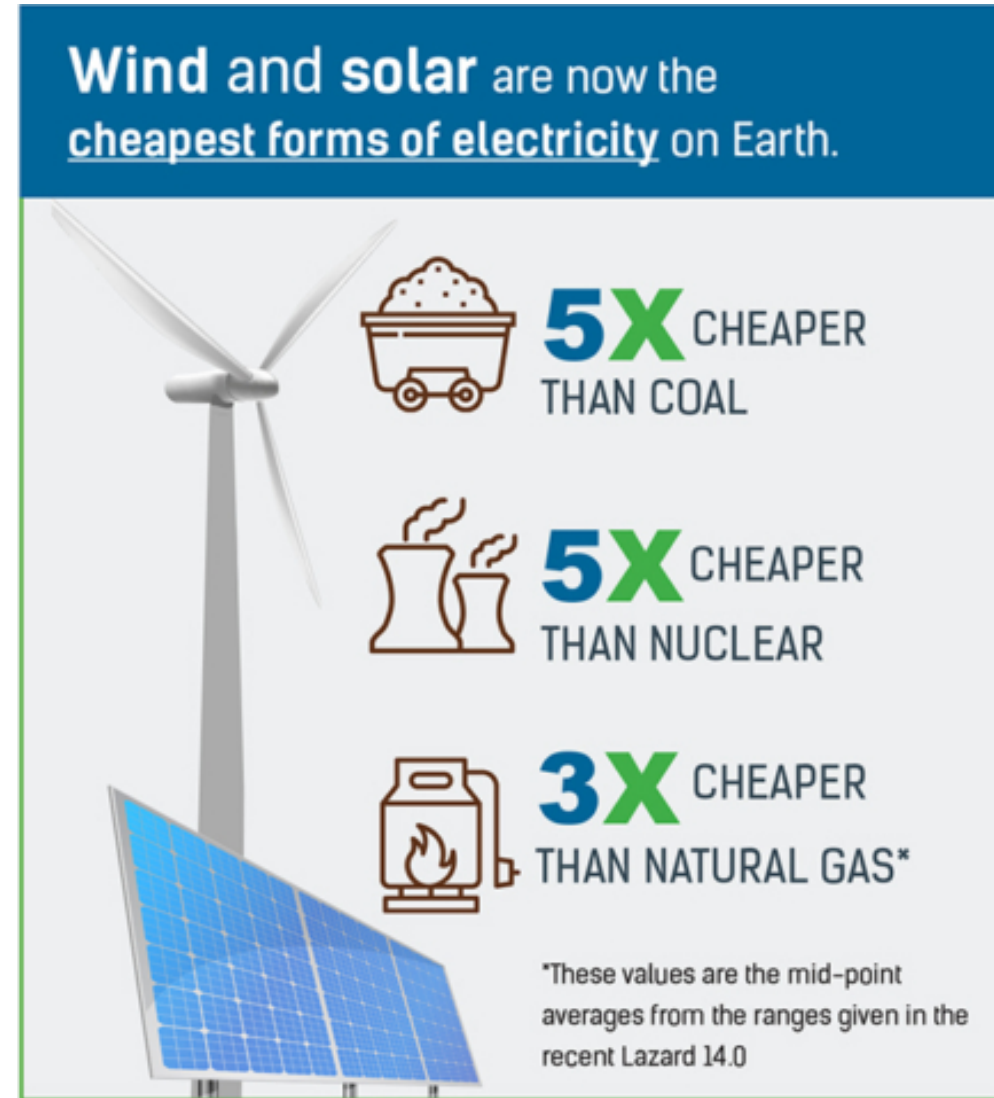
- Loftslagsvandinn er staðreynd
- Brennsla á fyrirbyggjandi jarðefnaeldsneytis auðlindum gengur ekki upp með tilliti til loftslagsstefnu ríkja

Climate change mitigation: How to keep global warming below 1.5°C or 2°C



Breyting 2

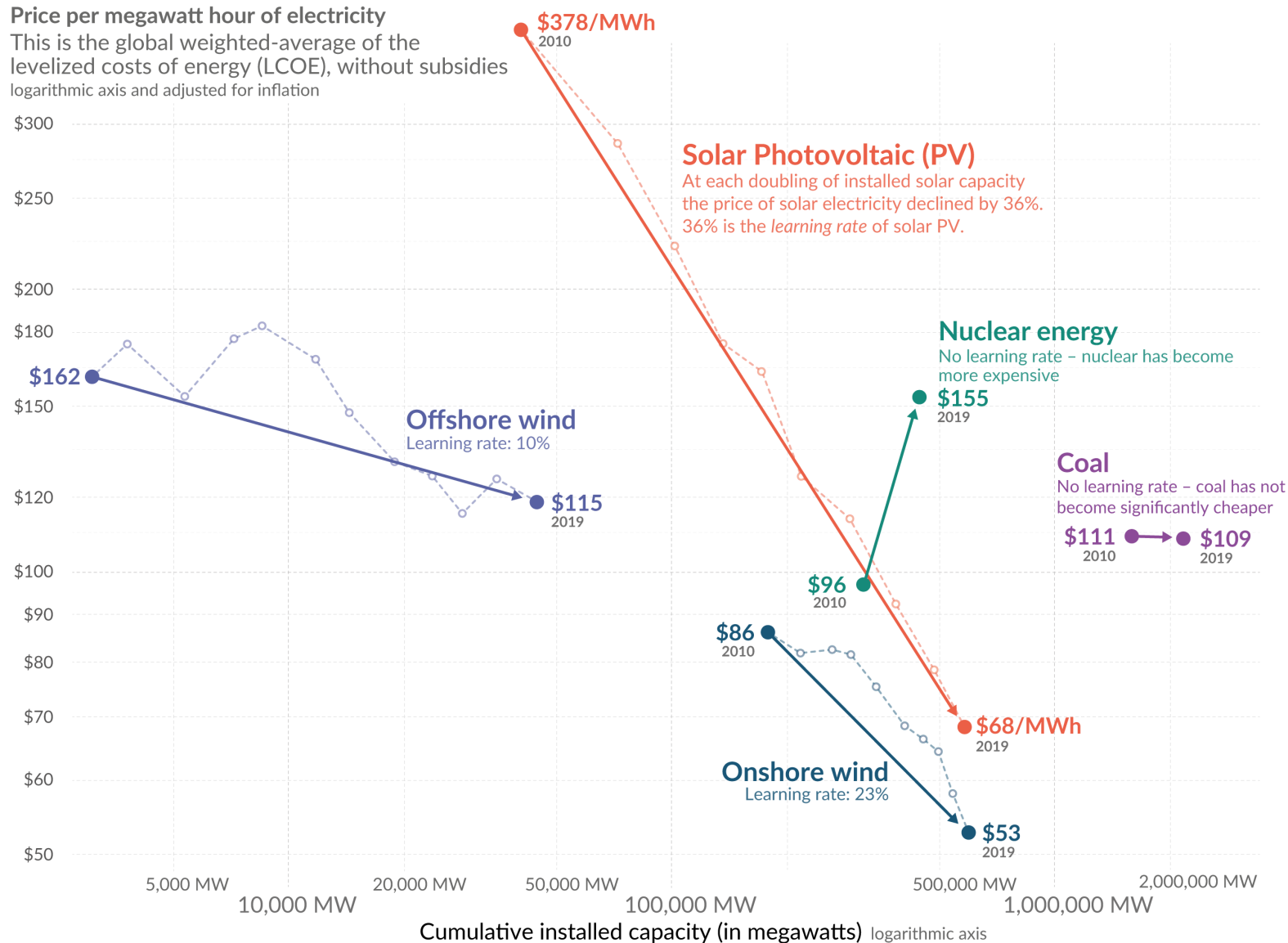
- Áhugaverðasta breytingin er að grænar eru að verða ódýrasti kosturinn
- Rangar ákvarðanir eru að verða enn rangari



Electricity from renewables became cheaper as we increased capacity – electricity from nuclear and coal did not

Price per megawatt hour of electricity

This is the global weighted-average of the levelized costs of energy (LCOE), without subsidies
logarithmic axis and adjusted for inflation



Source: IRENA 2020 for all data on renewable sources; Lazard for the price of electricity from nuclear and coal – IAEA for nuclear capacity and Global Energy Monitor for coal capacity. Gas is not shown because the price between gas peaker and combined cycles differs significantly, and global data on the capacity of each of these sources is not available. The price of electricity from gas has fallen over this decade, but over the longer run it is not following a learning curve.

Lásinn

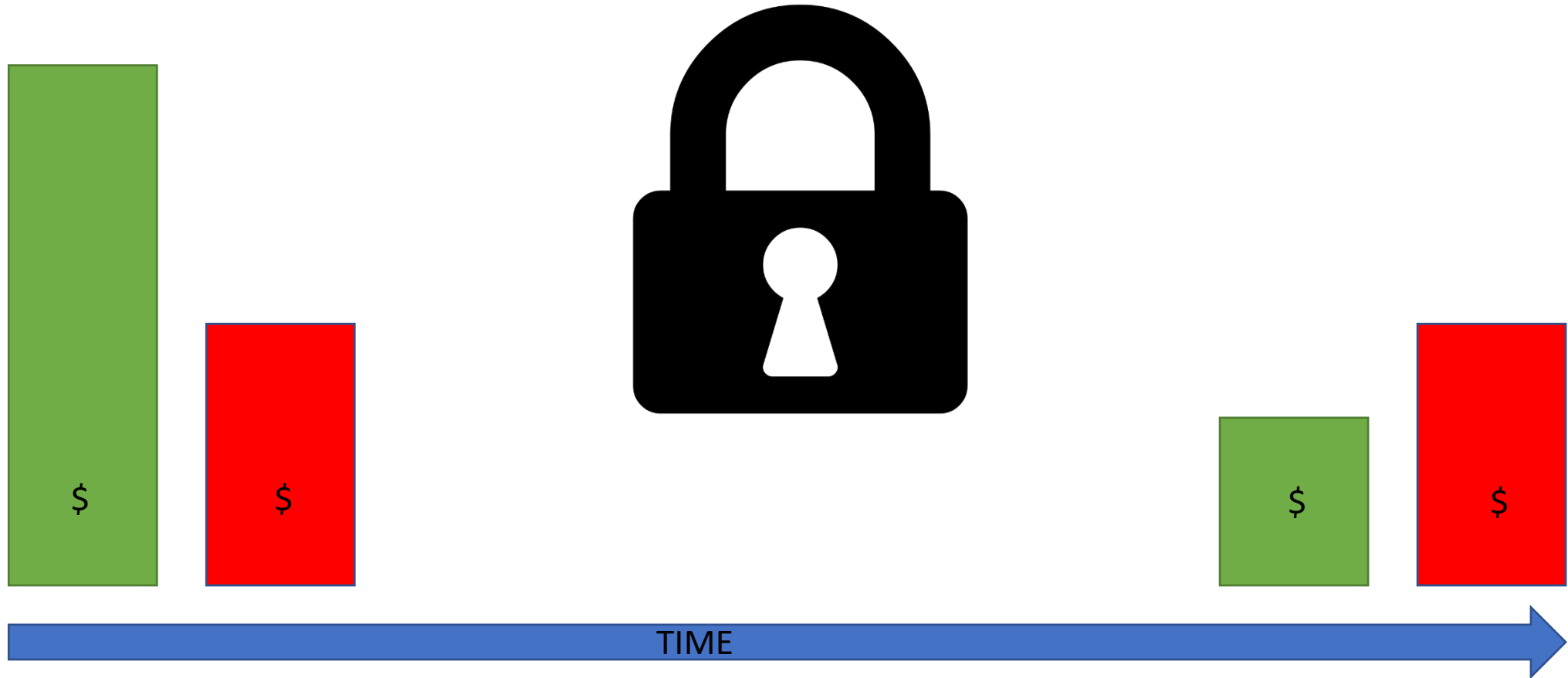
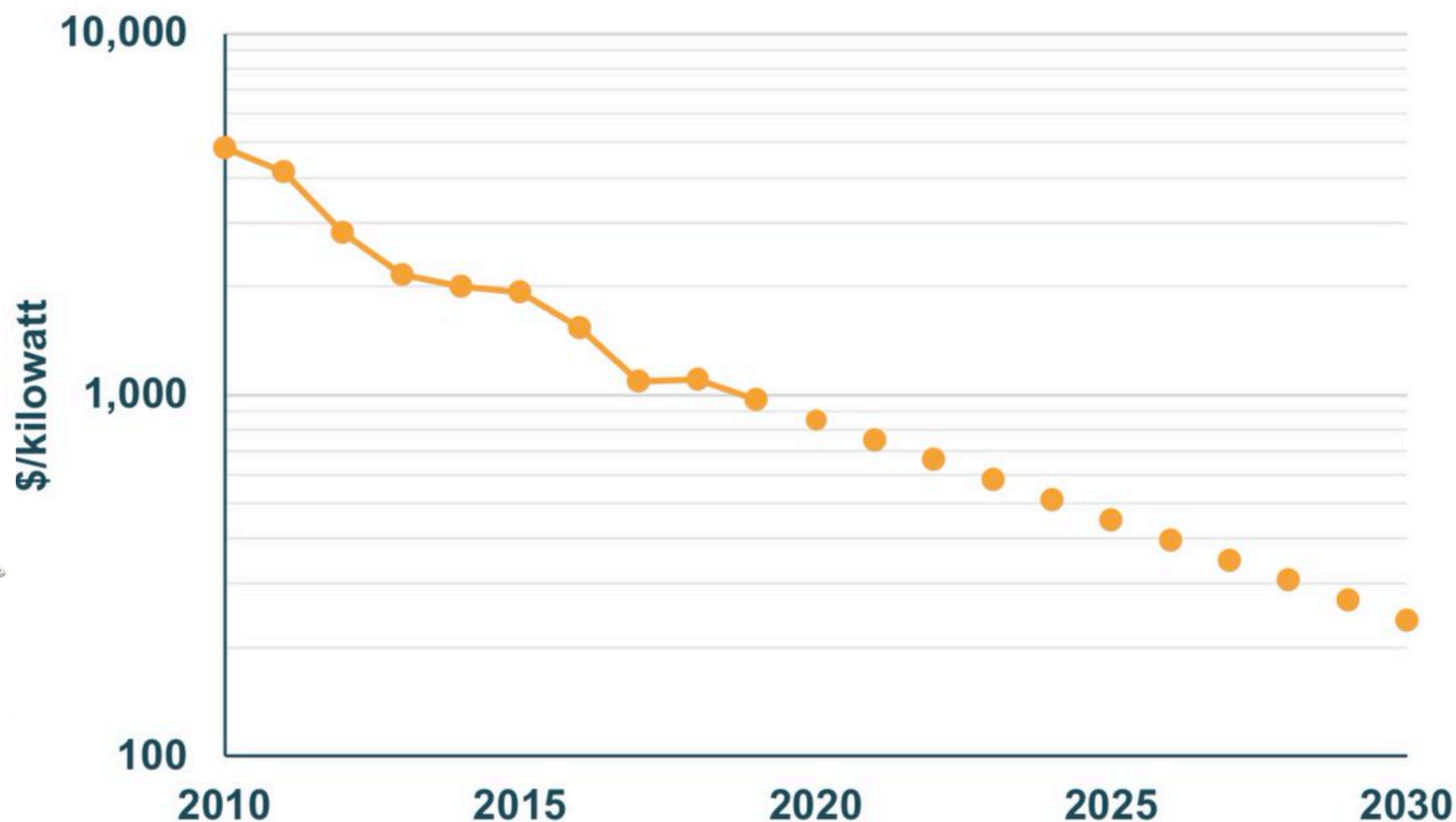
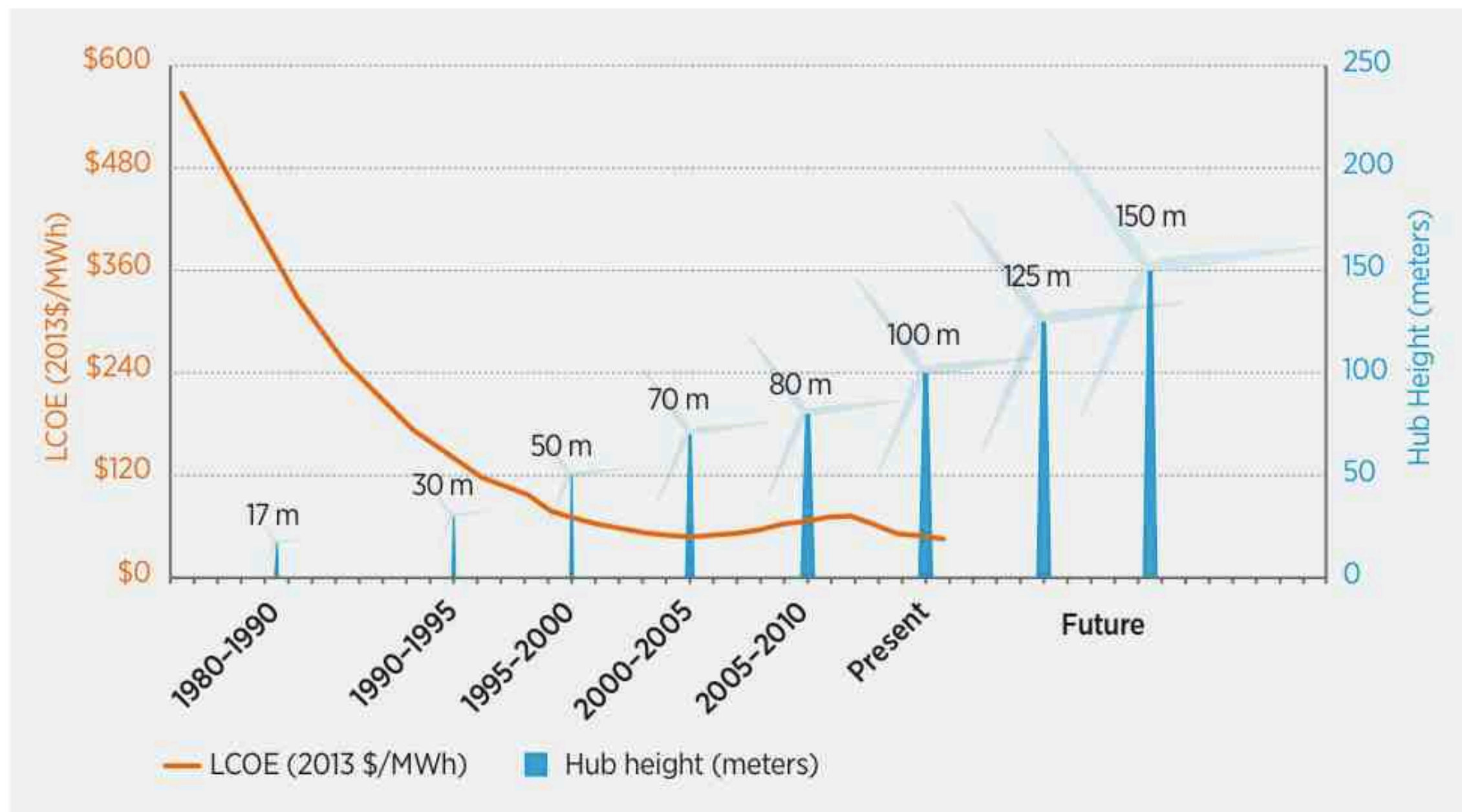


Figure 1. U.S. Solar PV Capital Cost (logarithmic plot)



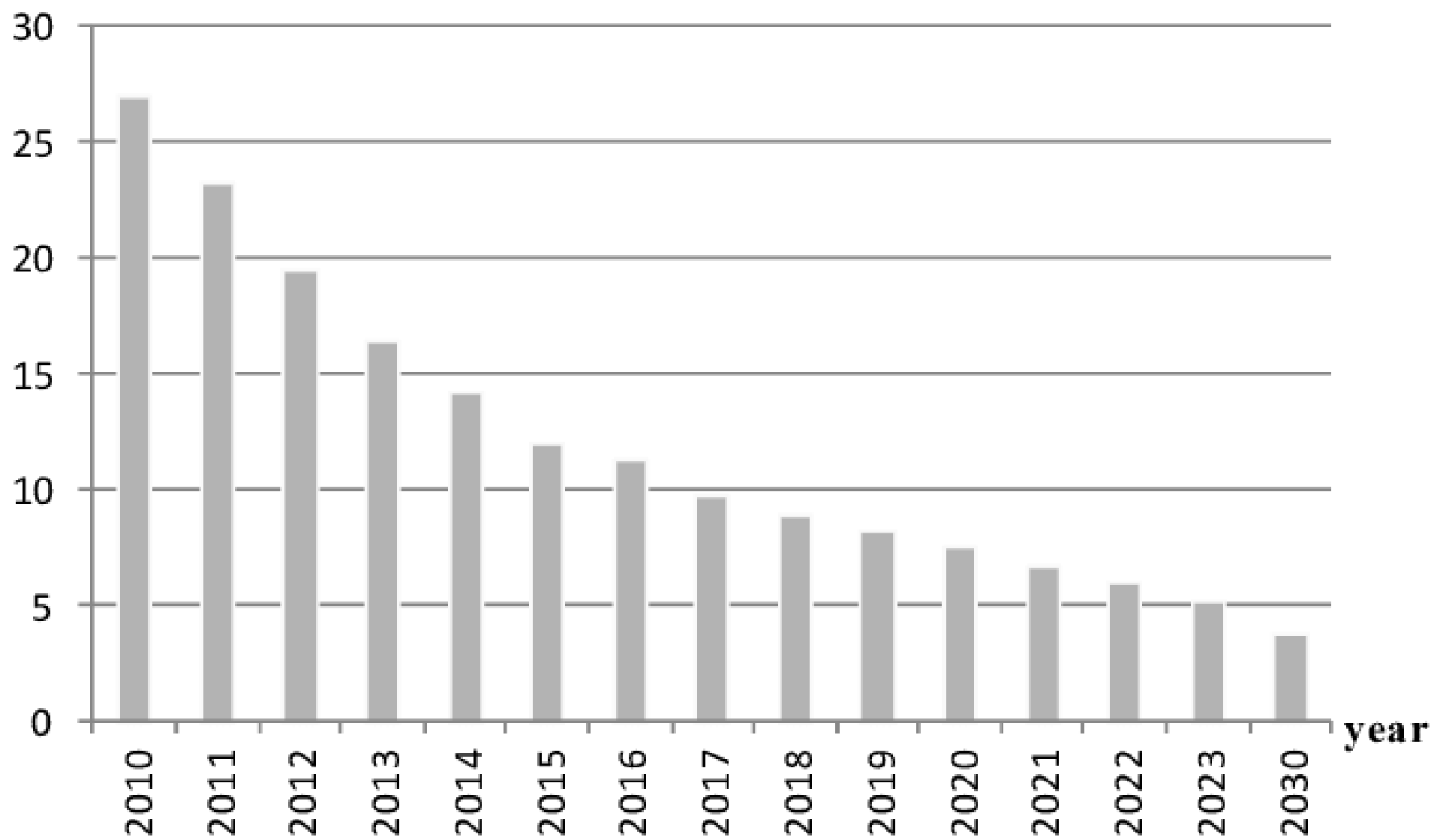
Source: NREL, 2018.¹ RethinkX projections 2019-2030.

Scale-up of wind technology has supported cost reductions.

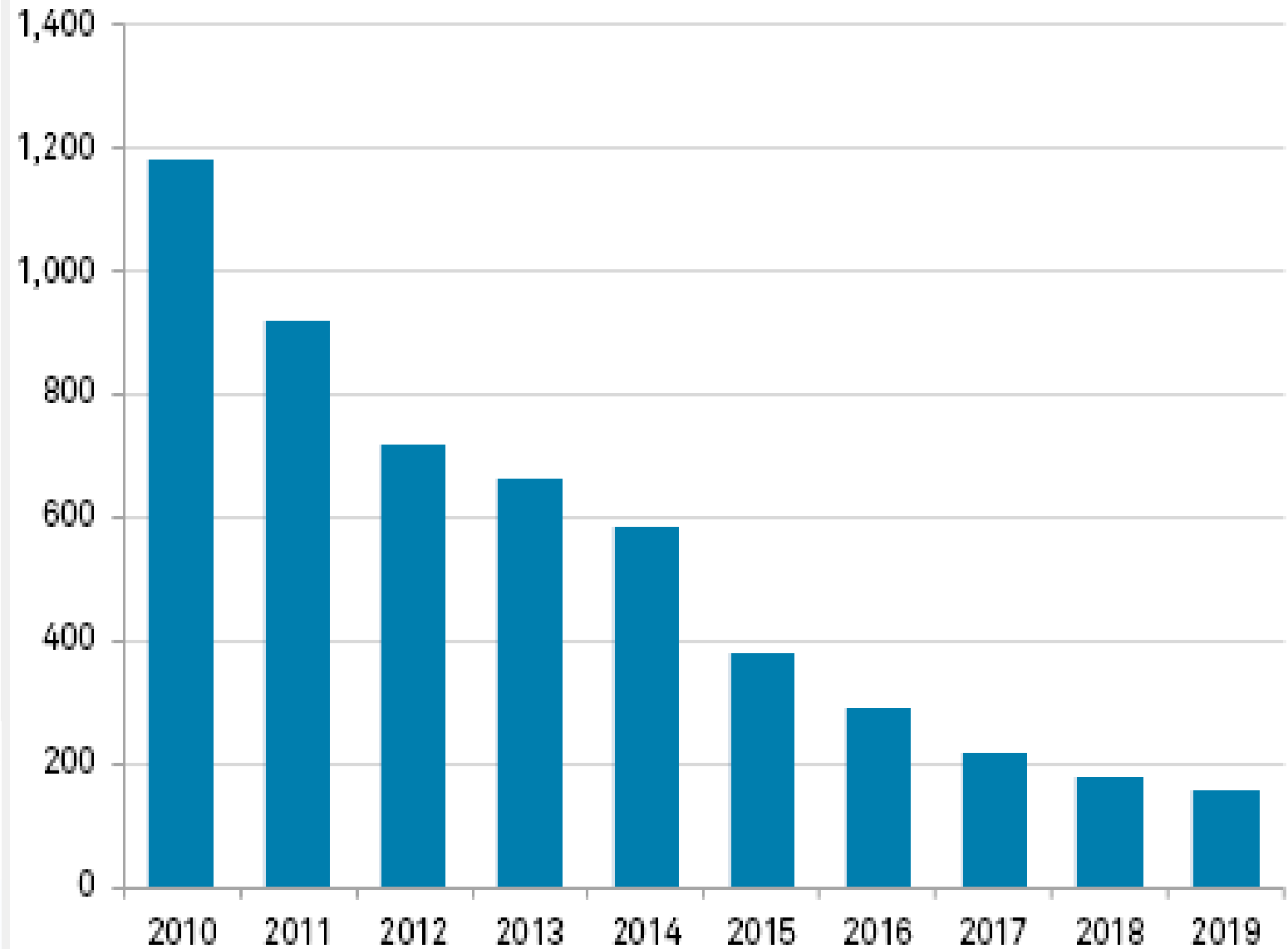




EUR/piece



Battery pack price (US\$/kWh)



As of May 12, 2020.
Source: BloombergNEF





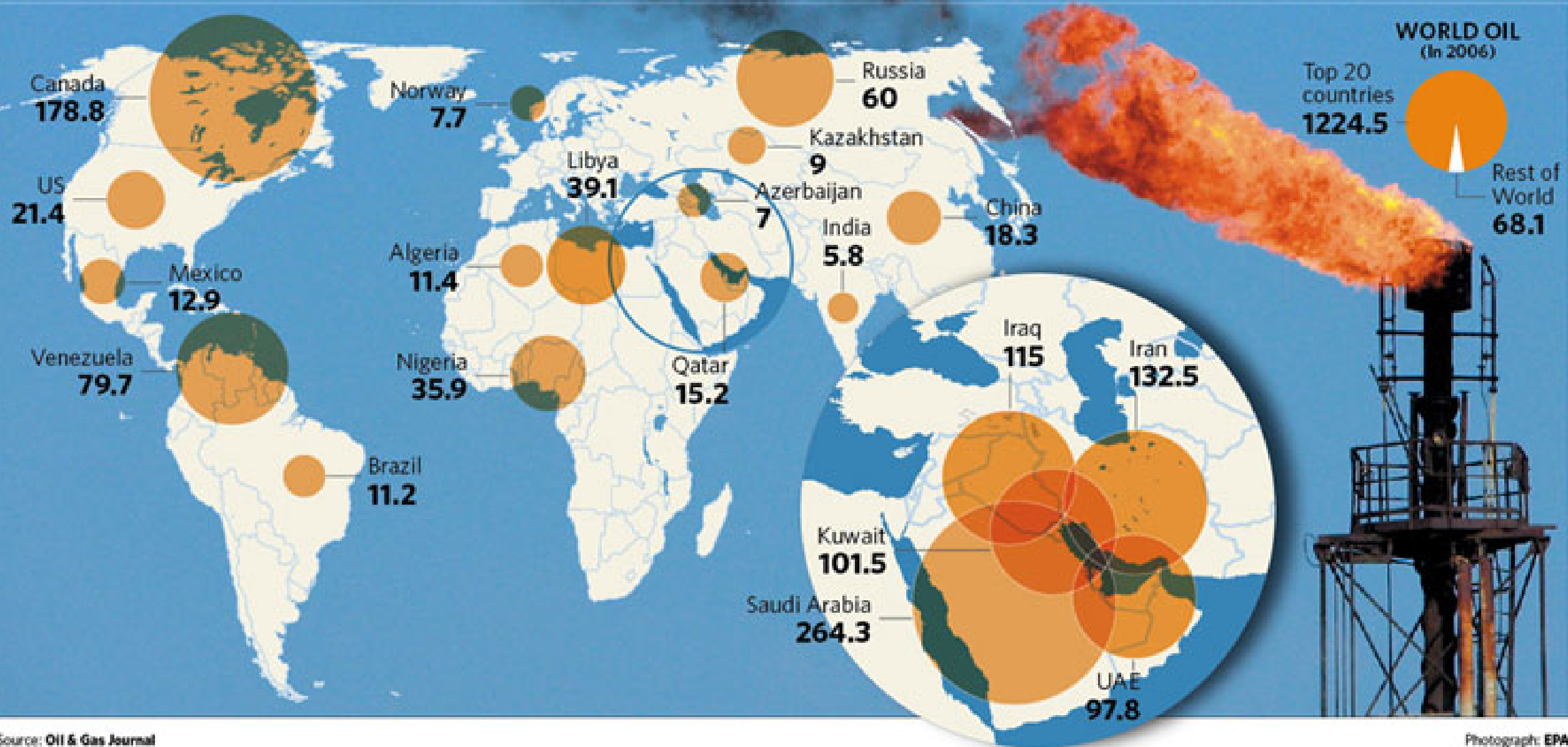
Breyting 3

- Orkuöryggi er og verður margfalt meiri áhrifapáttur en nokkurn tíma áður.



Oil: what's left?

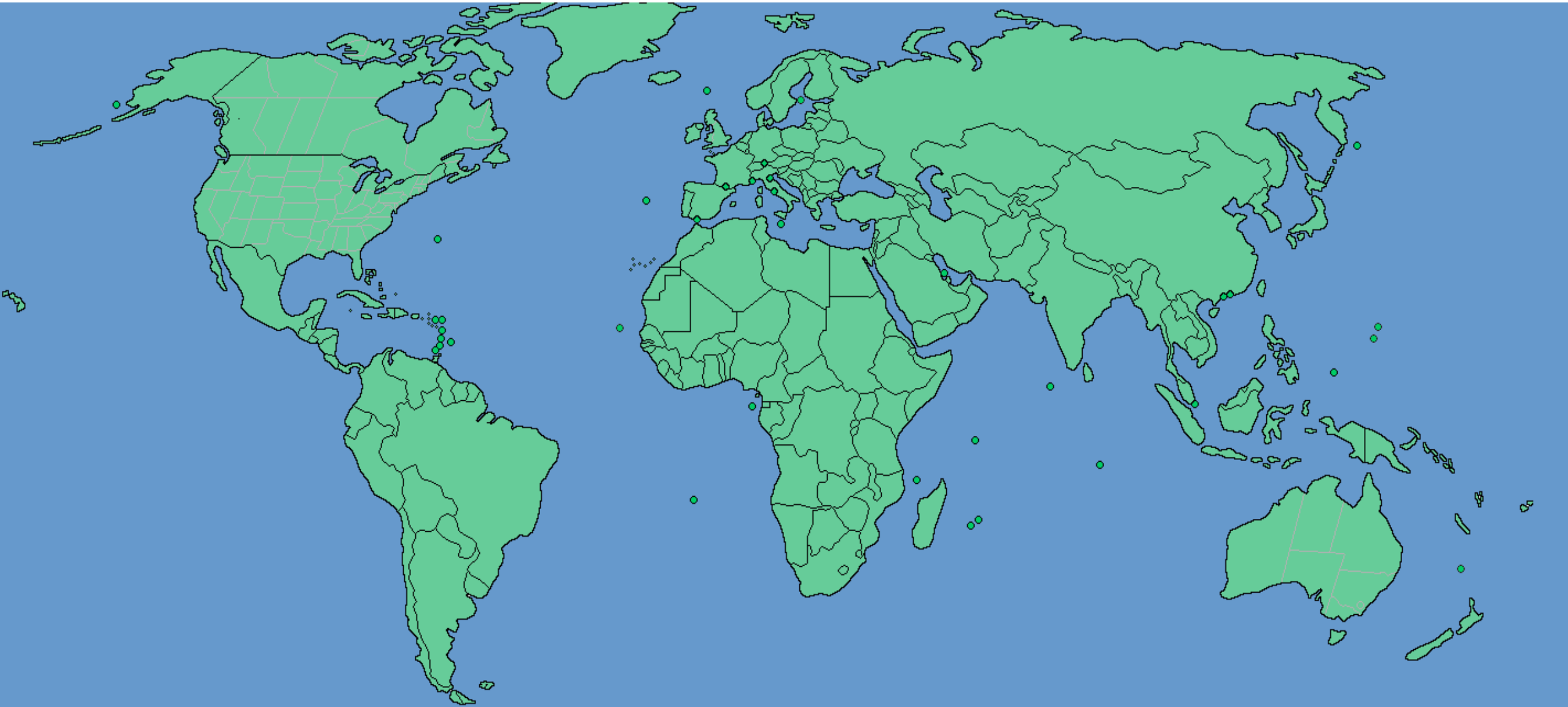
Proven reserves in billions of barrels



Source: Oil & Gas Journal

Photograph: EPA

Endurnýjanleg orka



Germany boosts clean energy target to 80% from 65% by 2030

Michelle Lewis - Apr. 6th 2022 8:44 am PT [@michelle0728](#)

GREEN ENERGY

ELECTREK GREEN ENERGY BRIEF

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Fæðuöryggi og orkuöryggi

- Afar mikilvægir þættir
- Hvað ef matvælainnflutningur stöðvast algerlega?
- Hvað ef olíuinnflutningur stöðvast algerlega?

Aukið flækjustig fjárfestingaákvarðana

- Ekki lengur nóg að rýna í excel og ársreikninga
- Miklu flóknari mynd sem þarf að greina í ákvörðun um fjárfestingar

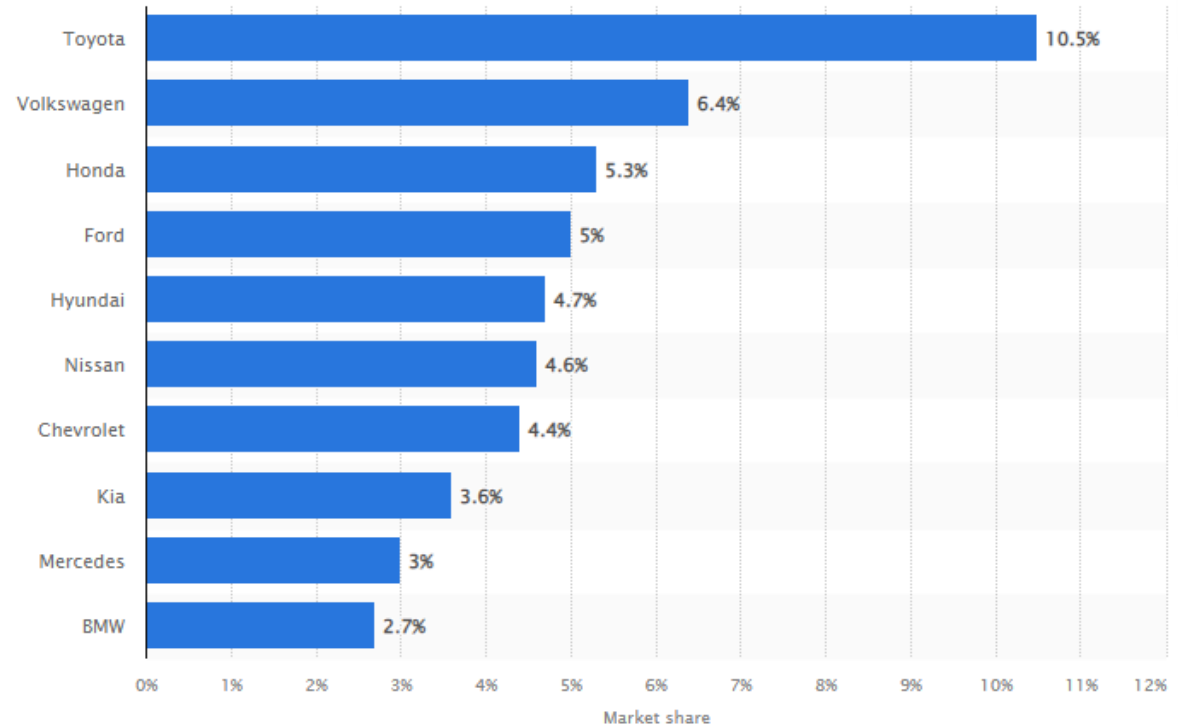


Dæmi



- Verðmætasta bílafyrirtæki heims
- Tesla er ekki hefðbundið bílafyrirtæki
- Fremstir í glænýju kapphlaupi
- Rafhlöðuframleiðendur
- Hleðslustöðva framleiðendur
- 0 \$ í auglýsingakostnað

Global automotive market share in 2021, by brand

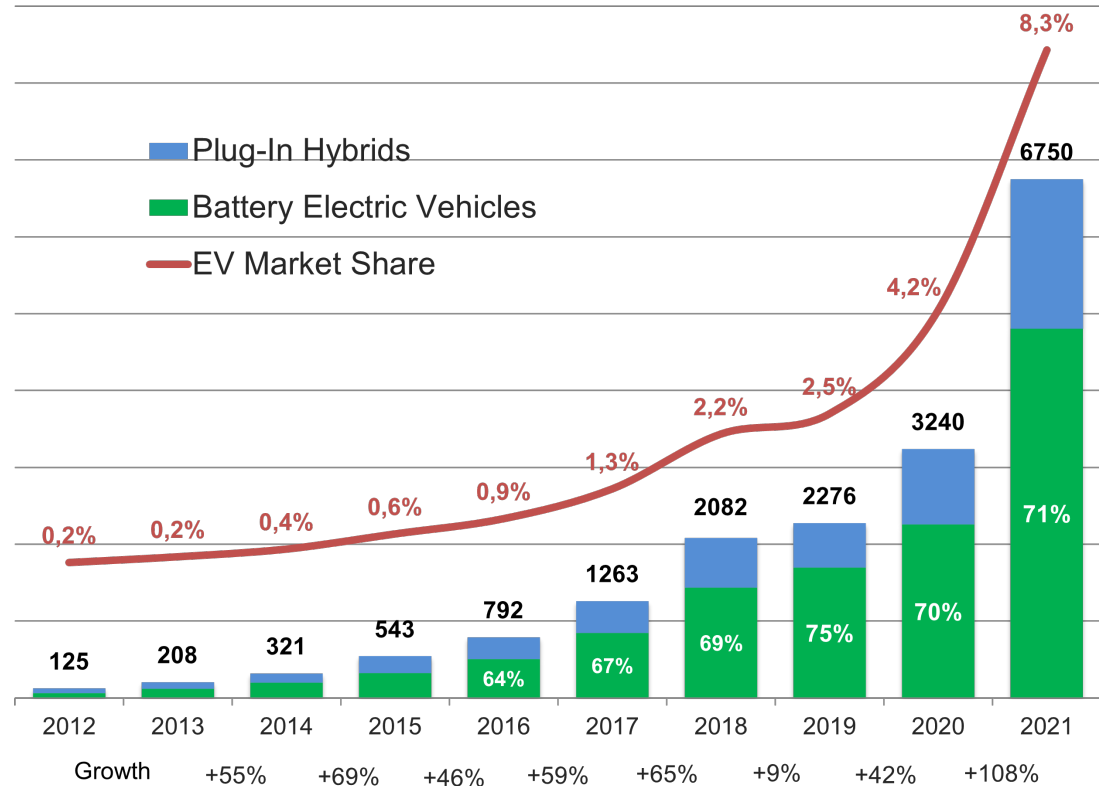


S -kúrfan



GLOBAL BEV & PHEV SALES ('000s)

EV VOLUMES

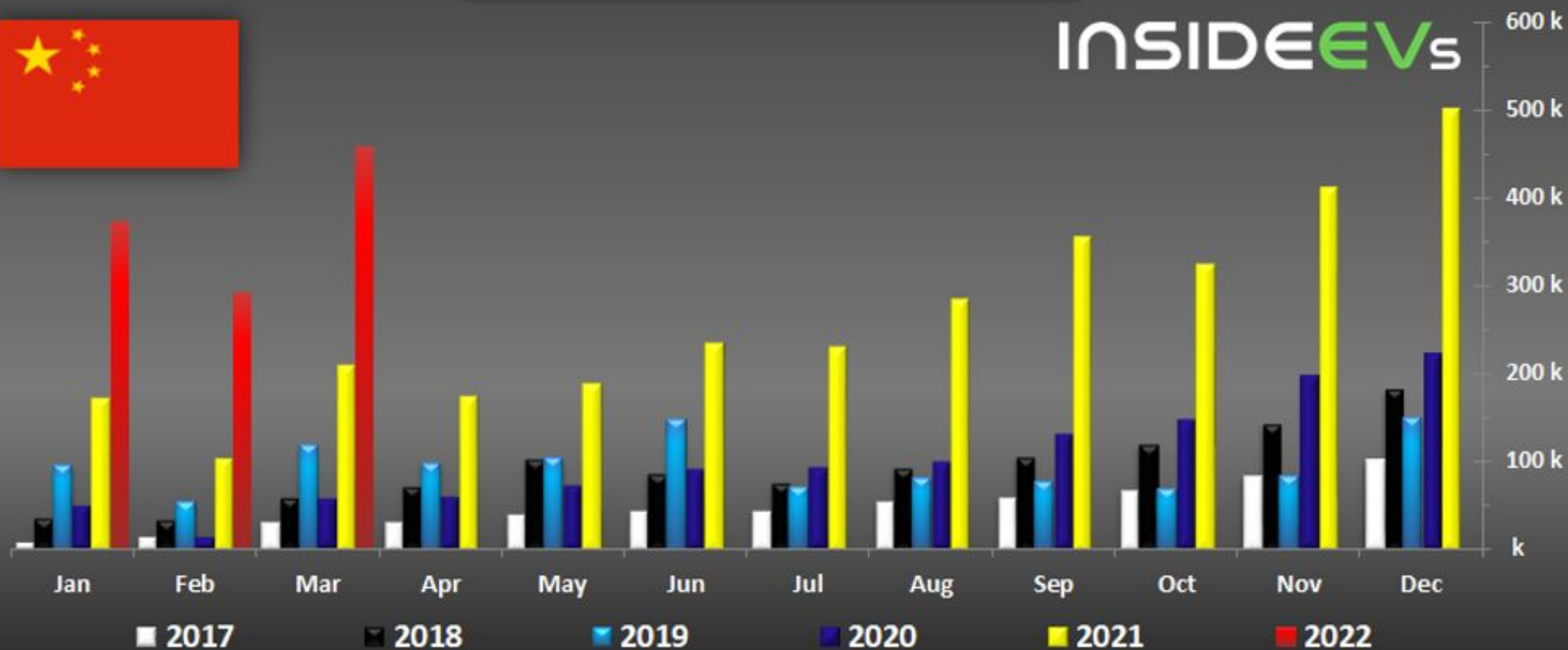


Plug-in electric car sales in China

(Jose Pontes / EV Volumes data)



INSIDE EVs



Dæmi



- Eitt stærsta flutningafyrirtæki heims
- Dýrari skip
- Nýjunga áhætta
- Dýrara eldsneyti
- Vanþroskaðir innviðir
- Hmm.....



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A.P. Moller - Maersk accelerates fleet decarbonisation with 8 large ocean-going vessels to operate on carbon neutral methanol

24 August 2021

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Europe

Decarbonisation

Share



Dæmi



- Eitt stærsta flutningafyrirtæki heims
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While the new Maersk-owned ships will still be able to run on very low-sulfur fuel oil -- the product widely used by vessels today -- the firm will strive to use carbon-neutral fuels, Christiansen said. That's despite the fact they will likely cost significantly more than oil-based options. Still, if marine fuel costs were to double, the price of a flat-screen TV in a shop would only rise by about \$0.50-\$1, Christiansen said.

Getting hold of enough carbon-neutral fuel will be Maersk's biggest challenge, given the current lack of availability. The firm also plans to have a small container ship capable of running on e-methanol, or, bio-methanol on the water in 2023, which it hopes will offer fuel suppliers an incentive to scale up production of clean alternatives.

"Our ambition to have a carbon-neutral fleet by 2050 was a moonshot when we announced in 2018," said Soren Skou, Maersk's CEO. "Today we see it as a challenging, yet achievable target to reach."

Dæmi



- Eitt stærsta flutningafyrirtæki heims
- Dýrari Trukkar
- Nýjunga áhætta
- Óýrari orku- og viðhaldskostnaður
- Vanþroskaðir innviðir

■ Press release 2022-03-29

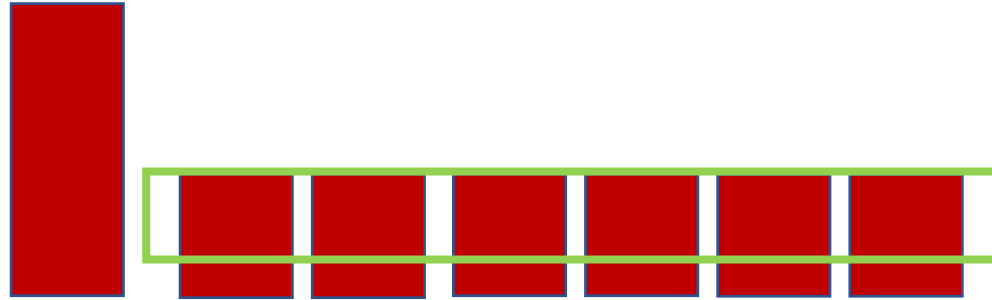
Record order from Maersk for Volvo electric trucks

Volvo Trucks in North America has won an order for 110 Volvo VNR Electric trucks from the global logistics company Maersk. The deal adds to a previous order of 16 vehicles of the same model and marks the single largest commercial order to date for Volvo's electric trucks.



Deliveries of the Volvo VNR Electric trucks to Performance Team, a Maersk company, will begin in the second quarter of 2022.


Stærra hlutverk fjármögnunarfyrirtækja



Dæmi



- Ekki nóg að framleiða umhverfisvæna rafbíla
- Virkt markmið að gera umhverfisvæna vöru enn umhverfisvænni
- Keðjuverkun sem hefur áhrif á birgja
- Ál og Ál ekki lengur það sama





Electric Cars Report


ELECTRIC CAR NEWS


ELECTRIC CAR REVIEWS


PLUG-IN HYBRIDS


physicist and green technology lover. Keep in touch with Blagojce through his [email](#), [web site](#), [Twitter](#), [LinkedIn](#), [Facebook](#) and [Google+](#).




 Gallery

 April 27, 2022

 Electric Car News

 polestar, polestar 2



Polestar 2 is being updated with new solutions connected to climate impact and transparency, along with design detail and specification updates that allow for new visual expressions and improved efficiency.

Polestar CEO, Thomas Ingenlath, comments: "We have revisited materials and processes that go into making Polestar 2, introducing updates that reduce the climate impact and increase material traceability of this award-winning car. These are important additions to how we can improve cars over their lifetime – not just with functionality and design updates but addressing sustainability and carbon footprint as well."

Polestar's [partnership with Circular](#) now includes blockchain traceability of mica, in addition to cobalt that is already traced in Polestar 2 batteries. The blockchain technology allows Polestar to trace risk minerals from material source to finished product.

The battery in the Polestar 2 Standard range Single motor sees improved cell chemistry that provides a higher capacity (now 69 kWh). This leads to increased range (now up to 474 km WLTP), faster charging (now up to 130 kW DC) and higher motor output (170 kW). The aluminium tray that carries the battery casing for all versions will see a CO₂e reduction of 750 kg per car, thanks to the decision to only purchase aluminium for this component from smelters that use renewable energy.

Bílalán fyrir bensín og dísilbíl

- Er stuðningur fyrir 30 til 60 tonna CO₂ framtíðarlosun
- Sem fljótlega verður örugglega yfirskot á lágmarks Parísarskuldbindingar
- Er líka lán fyrir
 - Minna orkuöryggi
 - Meiri losun heilsuspillandi efna
 - Minni efnahagstöðuleika
 - Dýrara raforkukerfi

Af hverju orkuskipti?

- Orkuöryggi
- Gjaldeyrissparnaður
- Minni heilsuspillandi mengun
- Minni hávaði
- Bætt nýting raforkukerfis
- Minni losun gróðurhúsalofttegunda



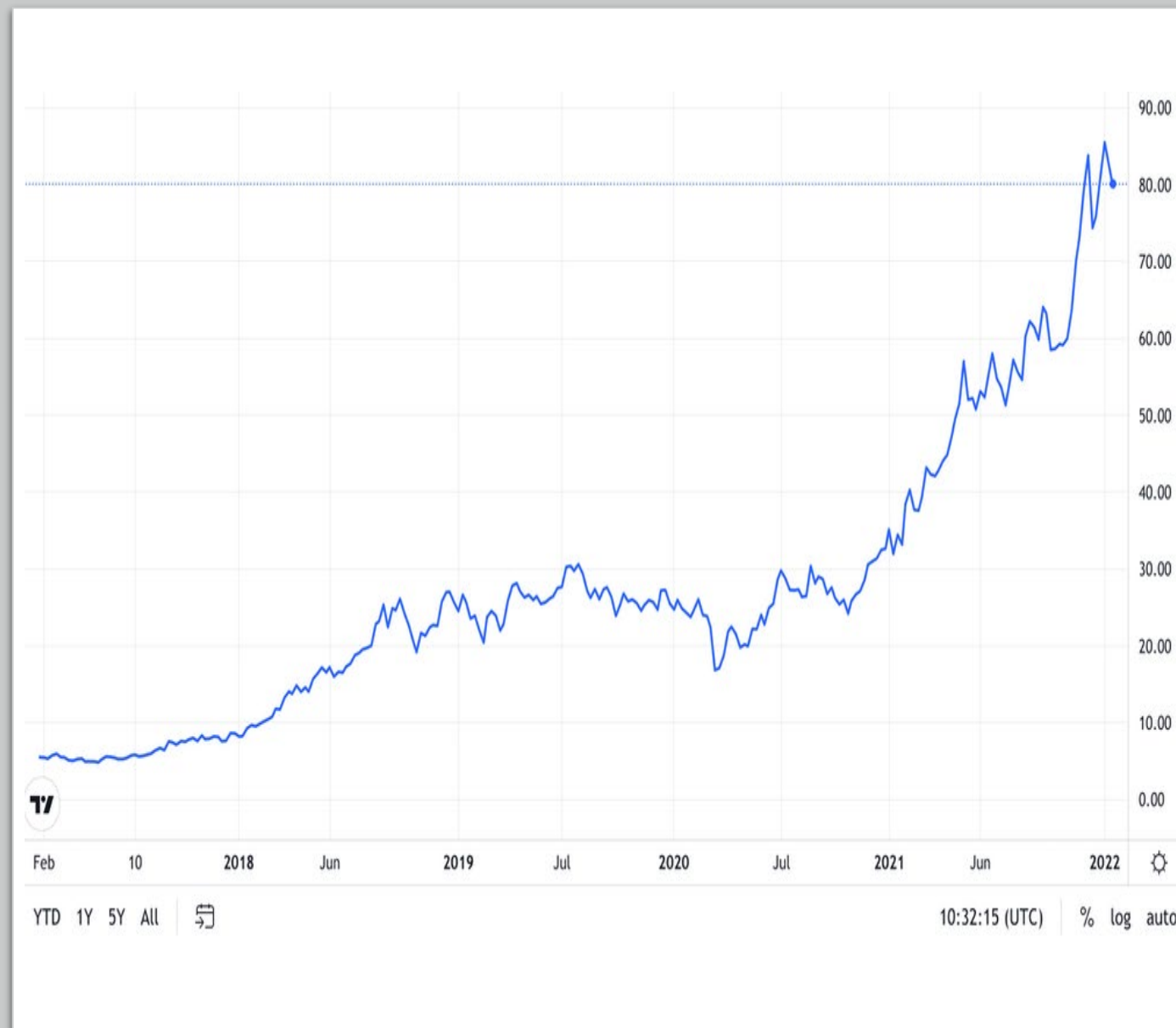
Samfélagsávinningur

- Rekstrarsparnaður

Glænýr markaður

- Ósýnilegt loft orðið að verðmæti
- Bylting ef markaður þroskast enn frekar samhliða lausnum

CO₂



Mótvægisaðgerðir

