ZERO EMISSIONS are a pipe dream

Sub Title

The Theatre of the Absurd (1)



Believe it: There is NO CLIMATE EMERGENCY

ZERO EMISSIONS are a pipe dream The Theatre of the Absurd (2)



Next showing at a theatre near you are the best of the Renewable prima donnas—

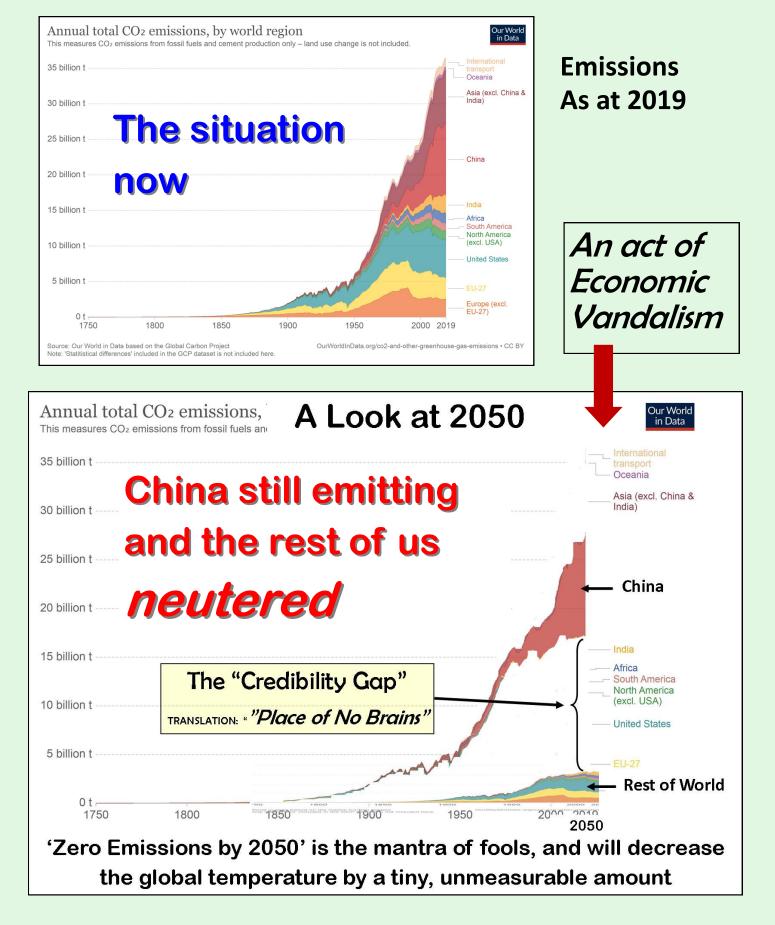
Zali Steggals and Malcolm Ex



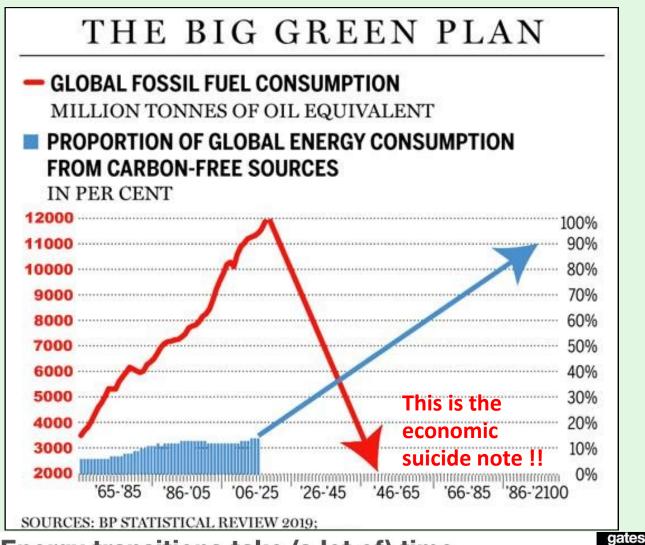


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ZERO EMISSIONS are a pipe dream

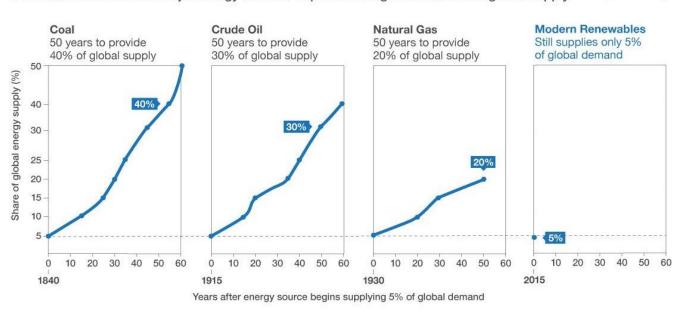


ZERO EMISSIONS - what to achieve"?



Energy transitions take (a lot of) time

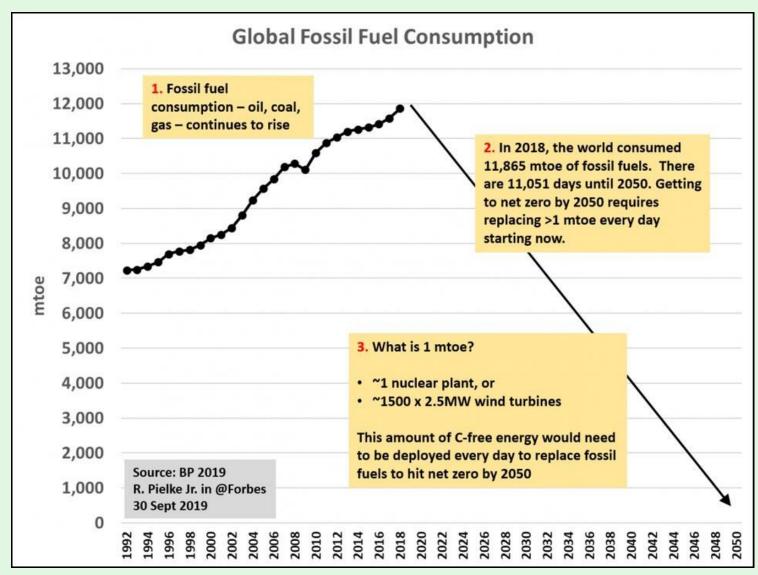
It has taken decades for major energy sources to provide a significant share of global supply



Source: Vaclav Smil. Modern renewables include: wind, solar, and modern biofuels

notes

ZERO EMISSIONS - how to achieve"?



Mtoe is an acronym that stands for million or mega tonnes of oil equivalent. The unit quantifies the amount of **energy** released when burning one mega tonne of crude oil.

Let us repeat these calculations: more will come later.

Getting to net zero needs to replace ~1 mtoe EVERY DAY from 2018 to 2050 !!! That is equivalent to building 1 nuclear plant or 1500 x 2.5Mw wind turbines

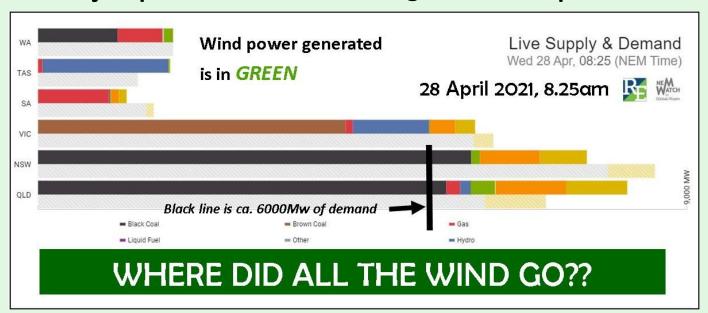
EVERY DAY FROM NOW.

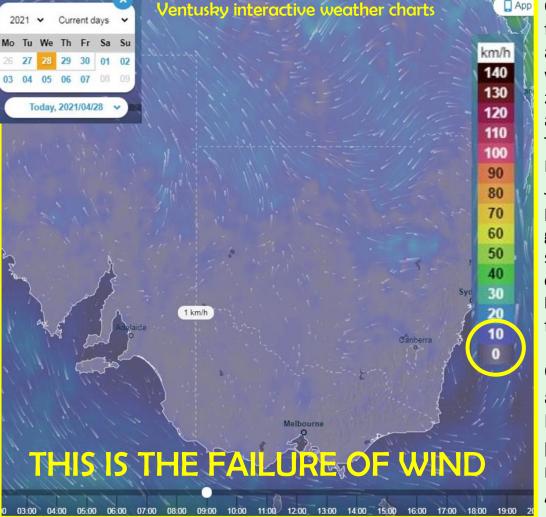
YOU NOW KNOW YOU ARE DEALING

WITH NET ZERO MORONS

The CREDIBILITY GAP Revisited

The CREDIBILITY GAP for **WIND** refers to the fact that for many days per year the wind does not blow. The country experiences a wind drought and NO power.



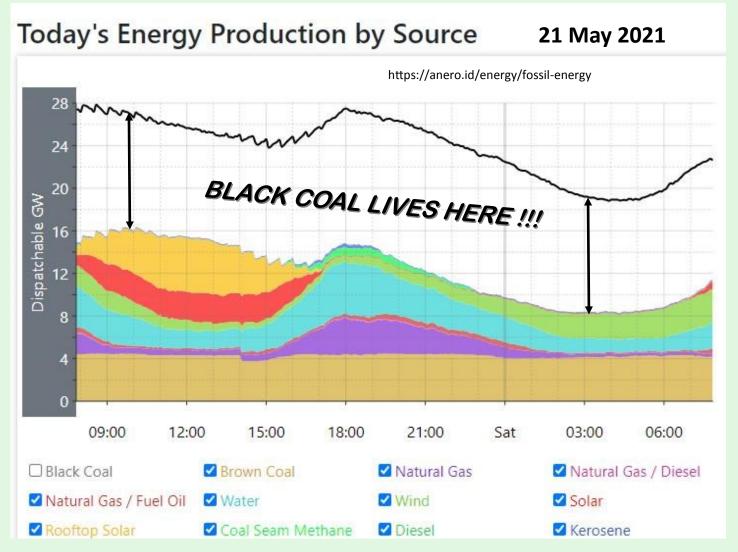


On 28 April 2021, and for 1 or 2 days before and after, wind speeds were recorded from zero to 10kph over vast areas of SE Australia. This was a WIND DROUGHT!!. Just about ZERO wind power was being generated in ANY state!! The entire country was run by FOSSIL FUELS except for hydro in Tasmania.

OLD KING COAL and GOOD BROWN COAL plus a little GAS rescued SE Australia.

The CREDIBILITY GAP Revisited

The CREDIBILITY GAP for *SOLAR* refers to the fact that every 12 hours or so the world is plunged into darkness.



On this May day solar contributes about 3-6 GW of power from 9am to 5pm. Then NOTHING for 12 hours. Old KING COAL provides 12GW of despatchable power to keep the country alive, all the night—hospitals, freezers, traffic lights and factories., 24/7

THIS IS THE FAILURE OF SOLAR

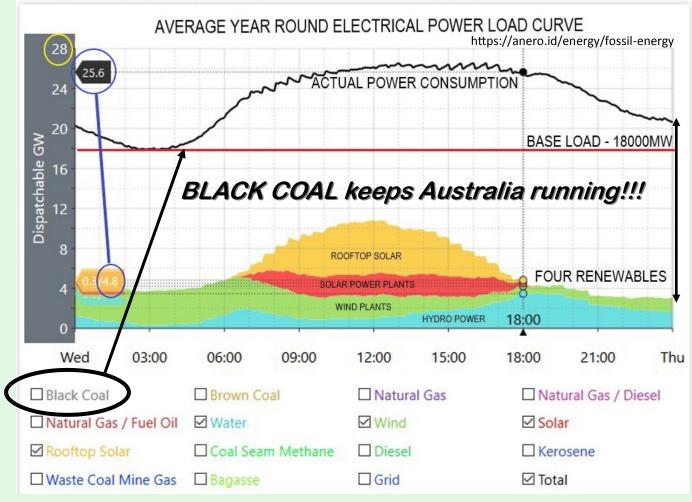
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The CREDIBILITY GAP Revisited

The CREDIBILITY GAP for <u>SOLAR</u> and <u>WIND</u> is that they are intermittent sources of power; and of course have no guts for providing 24/7 power.

JUST IN CASE YOU MISSED THE PREVIOUS PAGE...

Energy Production by Source During 18 March 2020

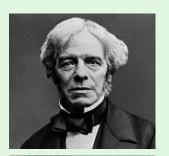


On this March day, solar & wind contribute almost NOTHING at 6pm at night. Base Load in Australia is 18,000 Mw or 18 Gw. It is Old KING COAL that provides those 18Gw of despatchable power to keep the country running all the time, 24/7.

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The CREDIBILITY GAP and PHYSICS

One of the problems with RENEWABLES is that they always run up AGAINST the laws of PHYSICS

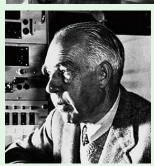


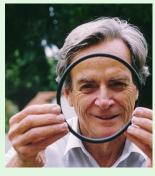
We show five of the best physicists the world has known—from the top: *Galileo, Michael Faraday, Marie Curie, Niels Bohr, and Richard Feynman.*

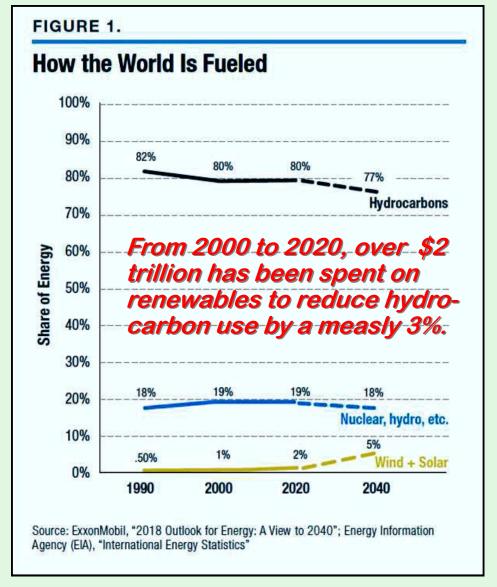
Reference for this discussion: Mark P Mills, March 2019: The "New Energy Economy" - an exercise in Magical Thinking. Manhattan Institute











As we have seen in earlier pages, expert projections to 2040 and beyond show NO significant reduction in the global use of fossil fuels for energy and electricity, as shown in his Figure 1.

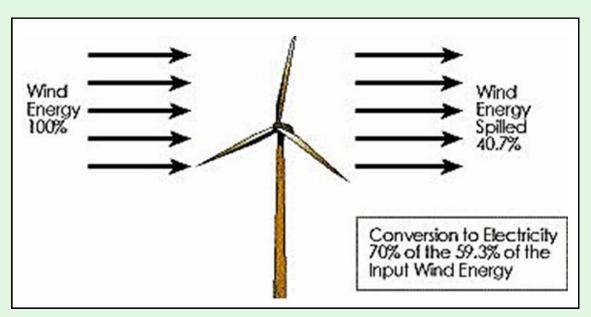
Wind power & the Laws of PHYSICS

Mills notes:

"No fundamentally new energy technology has been discovered or invented in nearly a century—certainly, nothing analogous to the invention of the transistor or the Internet".

"In the world of people, cars, planes, and factories, increases in consumption, speed, or carrying capacity cause hardware to expand, not shrink. The energy needed to move a ton of people, heat a ton of steel or silicon, or grow a ton of food is determined by properties of nature whose boundaries are set by laws of gravity, inertia, friction, mass, and thermodynamics—not clever software".

For Wind turbines, the Betz Law states that a blade can capture up to 60 per cent of kinetic energy in air. Modern wind turbines reached 45 per cent.



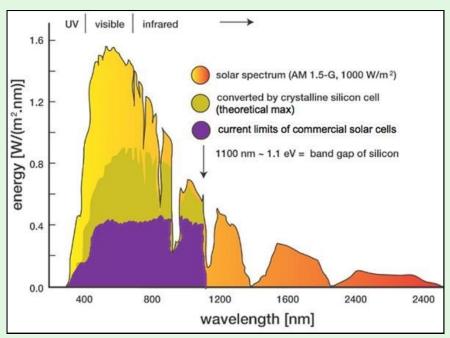
Because of the laws of the physics of energy, there is no possibility that the world is undergoing— or can undergo—a near-term transition to a "new energy economy."

The big problem from Betz Law is that wind turbines have a capacity factor of about 30% or less

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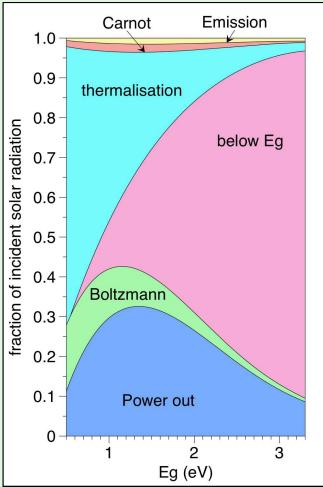
Solar power & the Laws of PHYSICS

Solar power output is determined by the Schockley-Queisser Law, which states that a maximum of 33 per cent of incoming photons can be converted into electrons in silicon photovoltaic (PV), with modern PV reaching 26 %



This diagram above shows the spectrum of incoming solar energy, incident on a solar panel. The purple area shows the power captured by the panel, being about 0.3 to 0.4 units of energy

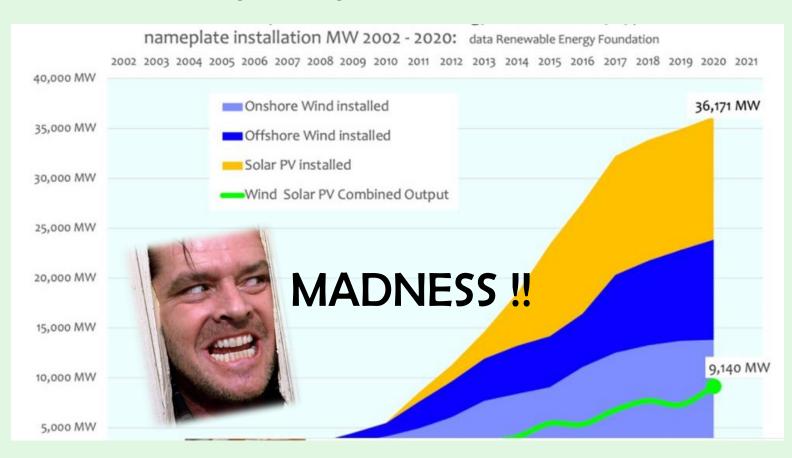
(on a good day)



This diagram above shows that the power out (in blue) is about 0.3 units, or 30%. Most panels in real life can achieve 25% or so

The primitive PHYSICS of renewables

The growth of 'weather-dependent' renewable energy installations in the UK 2002 to 2020 is shown here; in 2020, 36,171 MW installed gave an output of 9,140 Mw, a Capacity Factor of 25%c Conventional power plants have CFs of 80 to 95%



These inefficiencies are a waste of taxpayer's money, and contribute to the rising cost of power in many countries dedicated to installing windmills and solar panel. And it has only cost the taxpayers of the UK a measly \$45 billion since 2010 (\$45,000 million)

LURCH goes to the Vatican



Kerry says: "More than 50% of future emissions reductions will come from technology we know nothing about". (Kerry knows 50% of nothing)

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