

This January, when I was in Beijing for a workshop at Tsinghua University on offshore wind, presentation after presentation from Chinese experts revealed just how China has become an absolute juggernaut in offshore wind.

Professors from the Chinese Academy of Social Sciences and Tsinghua walked us through the governance structure — state planning, targets, industrial policy, and legal frameworks — that have allowed China to build an impressive vertical supply chain in offshore wind and deploy offshore wind at world-beating pace and scale. A representative from the Three Gorges Company, a Chinese state-owned enterprise, talked in detail about their efforts to develop projects in the “deep” and “far” seas off the coast of China. He and the other Chinese experts mostly talked about next frontiers in offshore wind, as if “near shore” wind developments were already old hat. Of the [75.2 GW](#) of global offshore wind capacity in operation at the end of 2023 around half was in China, nearly everyone pointed out.

A day before the Inauguration, I landed back in the US from my trip to China and awoke the next day to the cacophony of Trump's Day One Executive Orders (EO), including one that [halted](#) all federal approvals of offshore (and onshore) wind projects. The juxtaposition from Beijing to Washington could not be starker.

It's unclear how chilling [this executive order](#) will be toward wind projects that are still in the permitting process, but we know they'll face a tough road ahead. We also know that China is going to keep surging ahead.

I want to do a few things in this Part One of a series on offshore wind:

- First, a few words about the state of American wind energy.
- Second, a reminder of why Trump's move is wrong-headed and harmful to America, for environmental and economic reasons.
- Third, I want to take stock of Trump's arguments, which are often based on misinformation or simply incoherent.
- Finally, a word on the stark choice America is faced with now - embrace a clean energy future or double down on the fossil fuel industries of the past.

The US is Playing from Behind

In Beijing, there was an American presence, thanks to the Golden State. Our speakers from California spoke about the state's [2045 goal](#) to build 25 GW of offshore wind and the technical intricacies of permitting, workforce development, and environmental impact assessment. In my state there is serious, thoughtful work going on to push offshore wind

development forward In 2022, the federal government leased [five](#) areas off the coast of California for development (near Humboldt and Morro Bay), but these projects are still in the early planning stages. What's more, the [US](#) has less than 1% of global offshore wind capacity in service as of May 2024 ([174 MW](#)).

Lest one think that only non-democratic nations can develop such projects at scale, it is worth noting that Europe accounts for another 45% of global offshore wind capacity, including off the coasts of the UK, Germany, the Netherlands, and Denmark.

In other words, China and Europe are leading. The US is barely in the game. A natural US response to this state of affairs would be to fight like hell to catch up. This was the Biden administration's approach, which had a 30 GW by 2030 target for offshore wind. And the US was making slow, but steady, progress. Now that progress will weaken significantly.

Why We Need Climate Action

At the heart of Trump's action is denial of climate change as a problem. Climate change is not, of course, an "ideology" as the Merchants of Doubt over at the [WSJ](#) op-ed page argue. The science on climate change is overwhelming and we are seeing the harmful effects of climate change every day around the world. We in the US have a moral, economic, and legal obligation to act. I am preaching to the choir in this forum, but I think it important to repeatedly state our core goals and motivations in this Bizarro World where up is down and right is wrong.

I won't rehash all the arguments, but let's just look at the economic reasons for climate action. The real-world harms of climate change are reaching epic, apocalyptic proportions and there is no end in sight. In my city of Los Angeles, the cost of the January 2025 wildfires is estimated to exceed [\\$250 billion](#). Global climate-related damages in 2024 amounted to [\\$368 billion](#), according to insurance broker Aon.

Offshore wind is an important component of the global response. It is expected to grow to a capacity of [228-330](#) GW by 2030 and 1,800-2,465 GW by 2050 (supplying up to [13%](#) of global electricity demand, up from almost 2% today). It will be a [source](#) of economic growth, investment, and jobs. US companies are not the major global players today, but with policy and fiscal support US companies can surely compete against the Chinese and European players that dominate the field.

Trump's Arguments Against Offshore Wind

Why, you might ask, is Trump so opposed to offshore wind – a technology that is not just an essential component of a low-carbon transition but a promising source of new economic growth and a way to compete with China?

He has long railed against wind power (both onshore and offshore), and he repeated many of these claims at his post-Inauguration rally at the Capital One Center on January 20, 2025. Below is just a quick summary of what we can gather from his “weave” of often unsubstantiated or incoherent statements. Why bother? Trump's MAGA acolytes repeat many of these false or evidence-free claims, so it is important to stay on top of them. I personally experienced these talking points in one of the most unexpected places — from an Uber driver taking me to a meeting at the California Air Resources Board in Sacramento last year. I'm not doing a full fact check here, but I will cite to sources who have.

- **Personal antipathy.** Many accounts (*e.g.*, [here](#), [here](#)) say Trump's antipathy is personal and related to his own dislike of an offshore wind farm built within view of a Trump golf course project in Aberdeenshire, Scotland. Note that this was a wind project announced before Trump bought the land in 2006 for the course, which was completed in 2018. Needless to say, this is a poor (but very Trumpian) reason for setting policy that will harm a promising new industry and set back US and global climate policy.
- **Whale Deaths (no).** The National Oceanic and Atmospheric Administration (NOAA) has said there is [no evidence](#) for the Trumpian claim that offshore wind turbines harm whales. Whales face the largest risk from ship strikes or fishing gear entanglements. Offshore wind developments do increase ship traffic, but Trump is not scrutinizing other industrial activity (like offshore oil drilling) that also increases risk to whales. [Media](#) have reported that groups drawing connections between offshore wind and whale deaths are funded by the fossil fuel industry.
- **Harm to Property Values (no).** Trump claimed last month that, “if you have a house that's near a windmill, guess what? Your house is worth less than half.” In the past he has said the drop is as much as 75 percent. He also said that wind turbines will “ruin your neighborhood.” That certainly sounds like a bad thing. Who would want energy that kills property values? But guess what? Trump's claim is not based on any evidence. One Berkeley [study](#) found that wind turbine impacts on home values were minimal (about 1%), disappeared after only a brief time, and were mostly limited to early wind installations in the 1990s. As people got used to wind turbines, they did not mind the sight of them as much. This 2019 [factcheck.org](#) piece cites to several more studies that show limited to no property value impacts (and debunk a number of other Trump claims about wind power).

- **High Cost (no).** Trump said last week that wind energy is “the most expensive form of energy,” but this is simply not true. This is certainly the case for onshore wind, which is cheaper (on a levelized cost basis) than coal, gas, and nuclear power. Offshore wind is more expensive than onshore wind, but its cost is declining rapidly and it is not more expensive than gas peaking plants, nuclear, or coal on a levelized basis. The [data](#) I examined also does not include any consideration of the environmental costs and benefits of the respective technologies. Wind power would do well in such a comparison with fossil fuel energy.
- **Intermittency (no).** Trump has claimed that if his supporters wanted to watch TV (more specifically Trump's own debate performance) on a night where wind was not blowing they would not be able to if the pro-renewable energy forces had their way. Let's just say that this is not how the grid works. But Trump is referring to the genuine technical challenge presented by the intermittency of solar and wind power; *e.g.*, the sun does not shine at night and wind sometimes does not blow. Grid operators deal with this through a diverse energy mix, energy storage, and other techniques. Offshore wind actually helps to reduce this problem because ocean winds tend to blow more continuously. In other words, this is an issue of concern, but in typical Trumpian fashion the facts are wrong and the assertion seems to be a pretense for something else (personal antipathy, fossil fuel interests, vibes).
- **Cancer from Turbine Noise (no).** [No](#)
- **Birds, marine life (some).** As for other potential impacts of offshore wind on marine ecosystems and species, this Congressional Research Service [memo](#) provides a balanced assessment. There are impacts that should be mitigated, just as there are some benefits (*e.g.*, installations act as artificial reefs that support marine life). Turbines can harm migratory birds, but they cause only a fraction of the damage caused by house cats or tall buildings. What's more, ocean and marine life will be heavily impacted by long-term climate change that offshore wind helps to mitigate. One [commentator](#) called the environmental language in the EO Orwellian doublespeak, noting that Trump's orders to accelerate oil and gas production show no such concern for the ecological environment. There are also many other interests to consider within the impact assessment process, such as [Tribal](#) interests. These need to be part of the development process, but are not a reason to kill the industry, which seems to be the Trumpian goal.
- **Aesthetics.** Trump also seems to hate the way turbines look. Last week he called wind turbines “big ugly windmills.” Among his supporters there are many who seem to dislike the way windmills look. If that is how they feel, I can't say that they are “wrong” *per se*, even if I disagree. Beauty is after all in the eye of the beholder. The ability of environmental litigants to gain standing on aesthetic grounds was an

important legal change in the late 1960s and early 70s (*see, e.g.,* the [fight](#) over the pumped storage facility in the Hudson Valley in the Scenic Hudson case). I'd say consider the aesthetics, but within the context of the critical decarbonization, clean energy, and green development goals embedded in offshore wind policy.

- **China.** Trump also noted that the turbines are "all made in China." This is of course not technically true. Major European and US companies are involved in offshore wind development. But as I said at the outset, China is dominant in the offshore wind supply chain in many respects and US companies will need assistance to gain a better foothold. One must ask again whether China is serving as a mere pretext for these other reasons Trump has to kill offshore wind.
- **Energy emergency.** Trump is once again pushing hard on fossil energy as the only path forward. "We have more oil and gas than any country in the world and we're going to use it. We're not going to do the wind thing," Trump said last month. If we are in an energy emergency, why would Trumpian policy seek to shut down some forms of energy development? China, for example, has an "all of the above" energy strategy that emphasizes fossil fuels AND renewable energy. Environmentalists (myself included) have criticized the Chinese strategy and argue China could meet energy security goals with renewable energy while ramping down fossil fuels more aggressively. Trump's policy shows no such policy coherence and on its face seems designed to favor fossil fuel interests and not to maximize energy production. Again, policy seems to be a pretense for other more personal or parochial objectives.

A Stark Choice

At my January workshop in Beijing, it was troubling to face the reality of how far behind the US was on offshore wind. In contrast, China presented as a well-oiled machine pushing into new frontiers on renewable energy at breakneck pace and scale. Based on what I am hearing from Chinese insiders, the reality of Chinese offshore wind is not as smooth as many would like to suggest – for example, environmental and social impact assessment is not nearly as robust as it needs to be and grid connection remains a problem. But China is moving in the right direction at least and the speed and scale of its renewable energy growth is undeniable.

The Trump 2.0 vision for energy acts either as though climate change does not exist, or the US does not have any responsibility to take climate action. If the US were a corporation with Trump as CEO, it would be the once successful company unable to change with the times, grasping tightly to outdated strategies that worked in the past. Trump 2.0 as Blockbuster Video, expanding store locations despite the rise of online streaming and shifting consumer preferences.

California and other US states want to move forward on offshore wind projects, but they can't do it without cooperation from the federal government. Let's hope Trumpian Week One bluster gives way to more sensible approaches in the coming months and years.