Twitter Thread by Alex Epstein

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There is a lot of conflicting "information" about the TX blackouts. Here's the bottom line: the root cause of the TX blackouts is a national and state policy that has prioritized the adoption of unreliable wind/solar energy over reliable energy.

THREAD

For the last decade+ policy in TX and in the US has been focused on mandating or subsidizing as much wind and solar as possible. TX has bragged about being the biggest wind generator in the US.

The TX focus on wind has come above all at the expense of coal, which has the resiliency advantage (along with nuclear) of being able to store large quantities of fuel onsite; gas mostly requires "just in time" delivery from pipelines.

“In 2009, coal-fired plants generated nearly 37 percent of the state’s electricity while wind provided about 6 percent. Since then, three Texas coal-fired plants have closed...In the same period, our energy consumption rose by 20 percent.”

https://t.co/GRRpwgrTPZ

Because intermittent wind and solar can always go near zero--as we saw recently in TX--they don't replace the cost of reliable power plants, they add to the cost of reliable power plants. This is why the more wind and solar grids use, the higher their electricity prices.

To lessen the price increases from "unreliables" governments try to get away with as few reliable power plants online as they can get away with. TX is no exception. The Public Utilities Commission of TX has called their grid's margin for error ("reserve margin") “very scary.”

Additionally, the expense and distraction of accommodating "unreliables" takes away money and focus from resiliency. In CA this meant not maintaining power lines. In TX it may have meant not focusing enough on making the reliable power plants resilient enough to winter weather.

While we don't know yet what exactly caused certain gas and coal plants to go down--lack of resilience for those plants, grid mismanagement, or fuel infrastructure--we know with 100% certainty that gas and coal plants can easily run in far more

adverse conditions than TX has now.

We know with 100% certainty that gas, coal, and nuclear plants can easily run in far more adverse conditions than TX has now. And we know with 100% certainty that even if no wind turbines had frozen they would have been nearly useless during large portions of recent weather.

If you are looking at the facts in TX, the obvious lesson here is: stop subsidizing and mandating unreliables--which are often useless when you need them most--and do a better job at managing reliables.

Instead of acknowledging the reality that unreliables can't keep us warm or powered in the winter--and that the "100% renewable" direction is disastrous--advocates of unreliables are instead implying that no source of electricity can be relied upon, so no need to single out wind.

Dr. Emily Grubert of GA Tech writes: "Let us be absolutely clear: if there are grid failures today, it shows the existing (largely fossil-based) system cannot handle these conditions either." Really? Ever heard of the Midwest or Canada? https://t.co/36B6swOtO9

We know how to produce enough low-cost, reliable electricity for every situation. You just build a whole bunch of reliable power plants, including those with on-site fuel storage--such as coal and nuclear. You place a premium on reliability and resilience. That's it.

TX is having an electricity crisis during bad winter weather because it did not focus enough on building reliable power plants and infrastructure--because it was obsessed with getting as much unreliable wind/solar electricity as possible. Let's all learn from this mistake.

Right now TX's plans include
* 0 new nuclear plants
* 0 new coal plants
* 9.4 GW wind (the existing 32 GW went to 1 GW during crucial times this week)
* 11.9 GW solar (solar was useless much of the week)
* 5.0 GW gas (to handle the unreliables)

These plans should change.

As bad as TX's plans to "rely on unreliables" are, they are nothing compared to the Biden Plan, which calls for nearly 100% solar and wind electricity by 2035! Everyone should be asking him how the hell his plan would have fared in TX this week.

https://t.co/hIX72sWfT3

TX and America need to totally change direction in energy policy toward one of energy freedom, including freedom for the wonderful but demonized and criminalized ultra-reliable, non-carbon electricity source known as nuclear.

https://t.co/2TO5pYgUEp

For more truths about energy, environmental, and climate issues, go to https://t.co/NrUWETh9Vn.