## Twitter Thread by <u>Ag Competitiveness</u> ■■





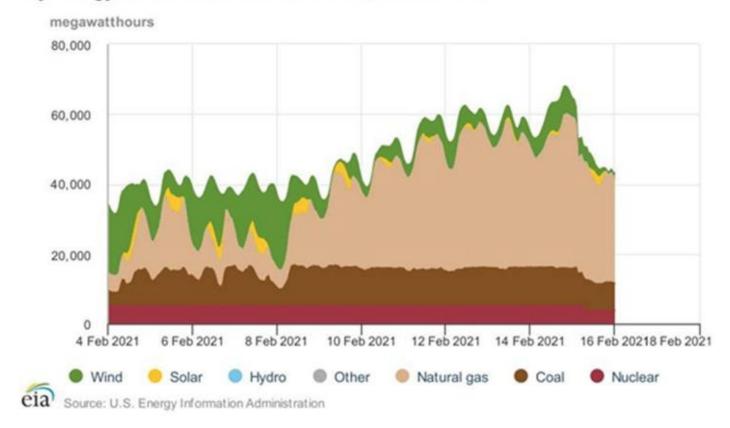
OK. I have seen a lot of attempted dunking on Texas...red state bad, bad government, etc...because of the electricity issue in this record cold. So, I am going to do a thread here. I am no engineer, but I want to point out some obvious facts.

1/n

This is a natural disaster of large proportions. At no time in recorded have this many Texas counties been below freezing for so long...ever. We are prepared for short stints, not an ice age. It snowed on Galveston island and much of the state is covered in snow and ice.

This chart shows electricity production since Feb 4. Note the large share from wind prior to the cold snap. Texas typically does not use as much electricity in winter, so gas plants are typically offline and have smaller reserves of gas.

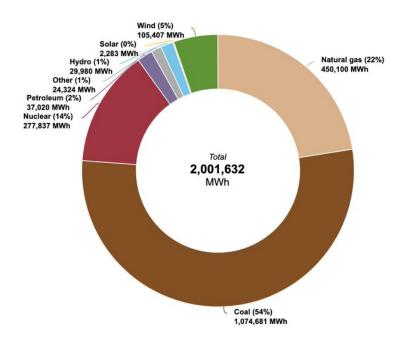
## Electric Reliability Council of Texas, Inc. (ERCO) electricity generation by energy source 2/4/2021 – 2/17/2021, Central Time



But as the cold hit, renewable production fell by as much as 93%. Gas plants fired up and easily met the ERCOT stress test levels initially, but electricity quantity demanded was rising, so was gas for heating. Eventually, there were shortages of gas that led to a drop in prod.

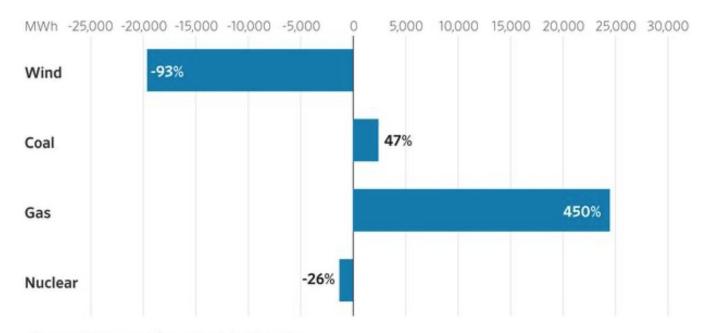
Why shortages? Because gas producers were contractually obligated to export gas all the while residential heating demand was rising as well...hence Gov Abbot's order. It provides more cover for force majeure contract breakage.

But here is another view. I pulled the Midwest PP data from EIA for 2/7 and the same for ERCOT. See a difference? The same northerners who are dunking on TX rely HEAVILY on coal and gas for base generation. So if there is a govt failure here, it is OVER-reliance on renewables.



This is not to say that wind caused this issue. It did not. It is a complex problem of energy balancing. But to pretend that somehow wind wasn't part of the issue here is crazy. This graph shows the deficit created by wind that had to be covered by gas before meeting inc demand.

## Change in Power Output February 8-16, 12 A.M.



Source: U.S. Energy Information Administration

Far too early for a complete post mortem (in fact we are still in the middle of it). But it should be CLEAR that solar and wind cannot be relied upon for base generation. Can it be a vital part of the mix? Absolutely.

Texas politics have a lot of issues. This isn't really one of them. Like any other natural disaster, we need to learn from this but we cannot do it if everyone is just interested in scoring snark points. /end