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# Why The US Will Lose The AI War With China, In One Chart

BY TYLER DURDEN

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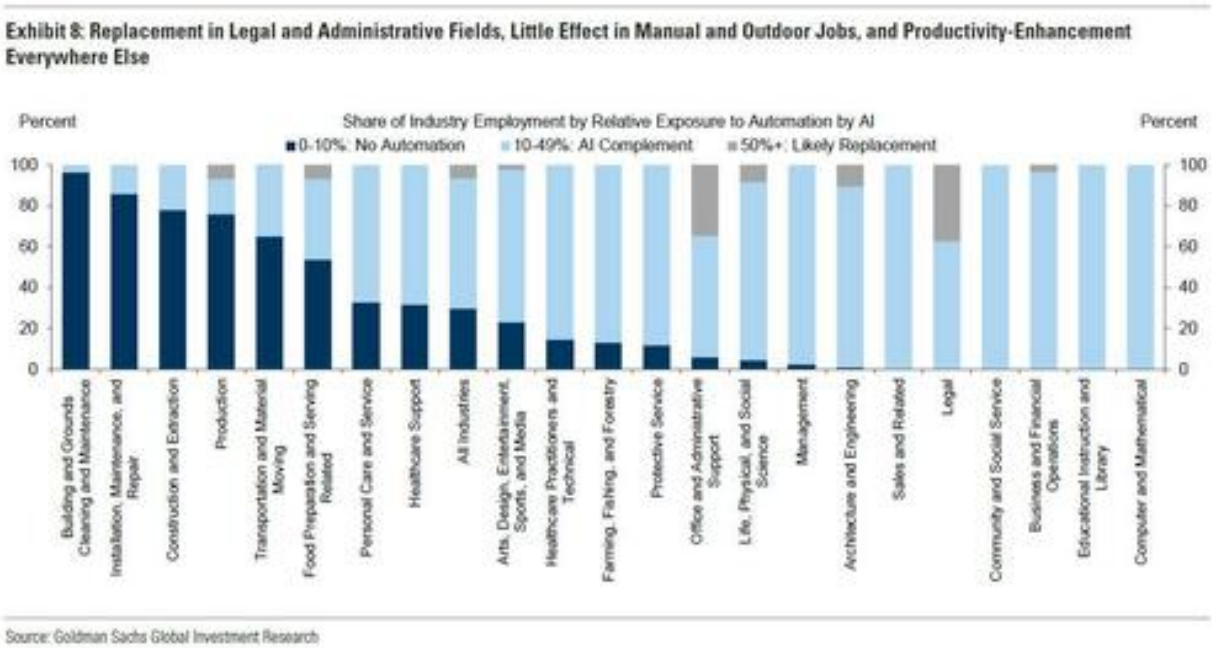
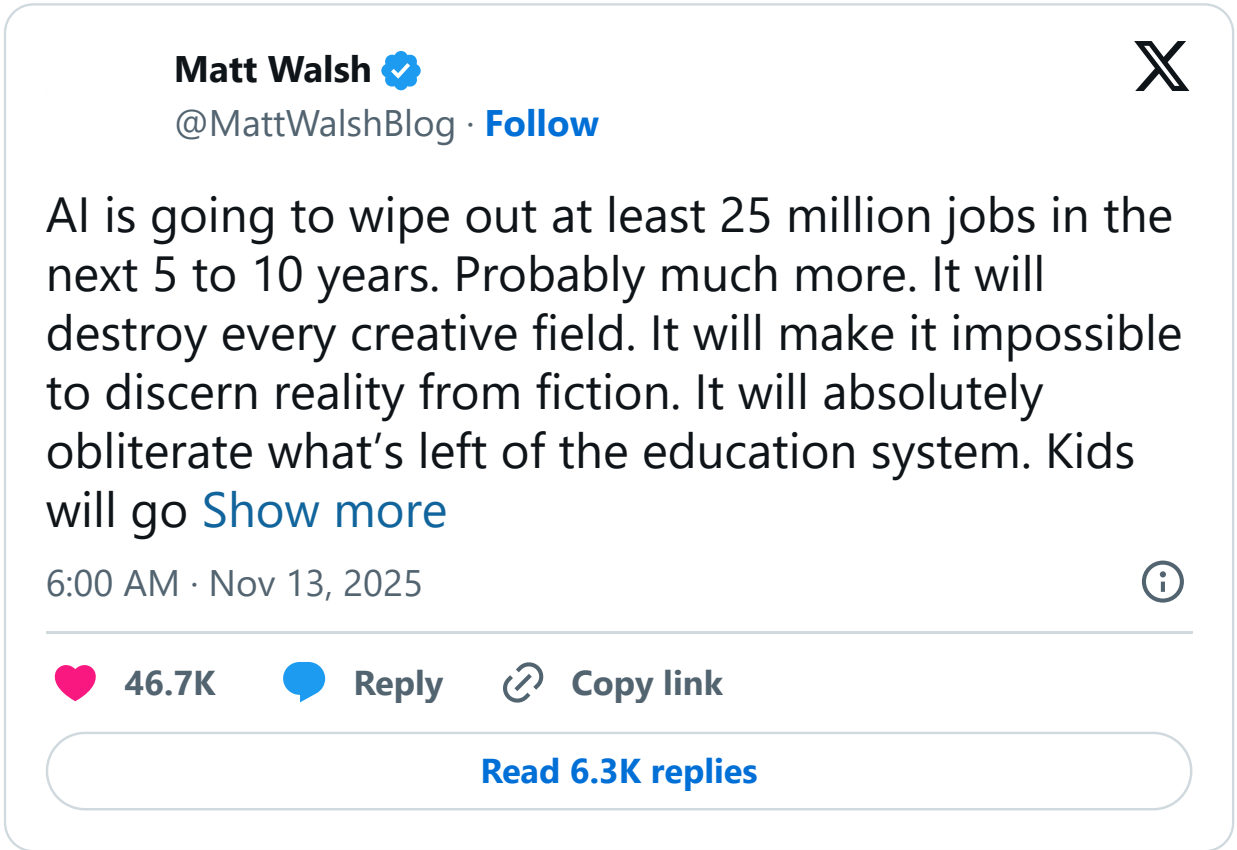
Almost three years ago, we published an analysis from Goldman Sachs, according to which "AI Will Lead To 300 Million Layoffs In The US And Europe", as up to *one-fourth of all work tasks* are gradually automated by AI in the US and Europe.




Since then, the question whether AI would indeed lead to mass layoffs has lingered, with many ignoring the profound implications, until recently when last week the latest Challenger Gray report indicated that a key reason for the near record surge in October layoffs was AI as "*a disruptive technology is changing the landscape.*" And just like that we have moved into the panic phase, with even finance-remote accounts such as conservative podcaster

Matt Walsh sparking a firestorm with his tweet that "**AI is going to wipe out at least 25 million jobs in the next 5 to 10 years. Probably much more.** It will destroy every creative field. It will make it impossible to discern reality from fiction. It will absolutely obliterate what's left of the education system. Kids will go through 12 years of grade school and learn absolutely nothing. AI will do it all for them. We have already seen the last truly literate generation."

His conclusion: "our leaders aren't doing a single thing about any of this. None of them are taking it seriously. ***We're sleepwalking into a dystopia that any rational person can see from miles away. It drives me nuts. Are we really just going to lie down and let AI take everything from us? Is that the plan?***"

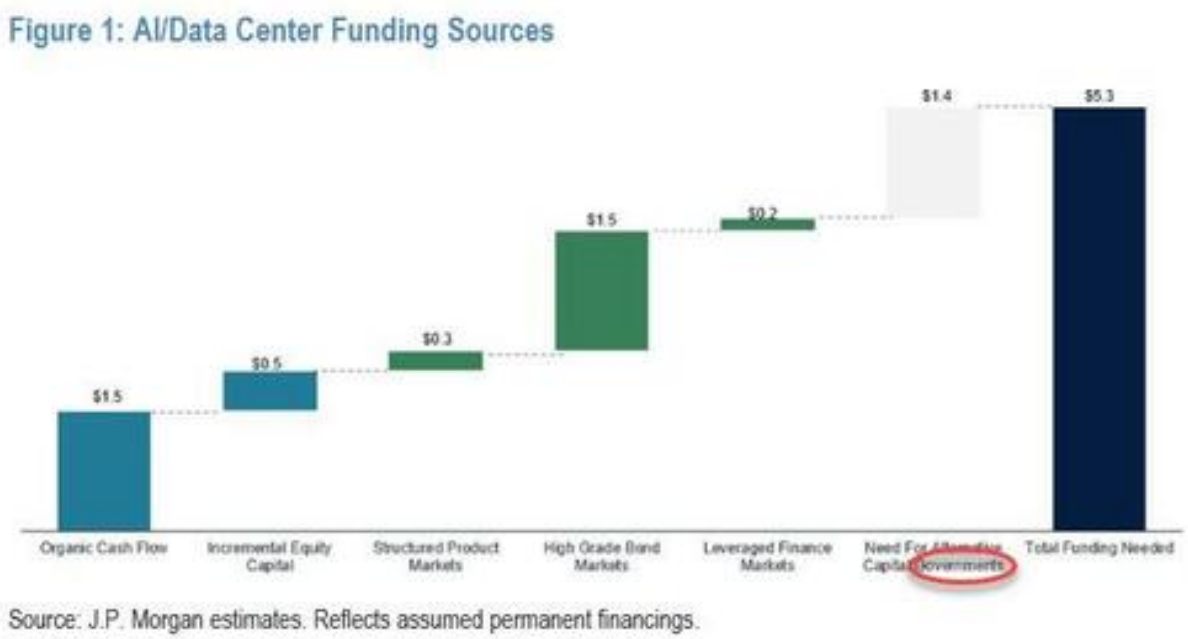



Walsh's views are certainly valid, and one doesn't have to be a neo-luddite to agree that while AI will certainly spark a technological revolution and open numerous jobs as a result, the turbulent transition period - which will take many years - until AI is a fully-established and mature technology which is job creative and not job destructive, will take many years, leading to massive layoffs in the immediate future. That there may well be an offsetting or greater number of job openings after it, will be cold comfort to all those tens (if not hundreds) of millions who will lose their job for the foreseeable future, and could easily have profound political and social implications (especially in a modern society which is already tearing itself apart at the edges).

Yet there is a very clear and present reason why despite the potential social downside, the US government simply can not hold back the technological progress, and it has to do with what we said in '[Chatbot Race Defines Path To 2030 Dominance.](#)"

Simply said, **AI is the new nuclear arms race between the world's superpowers, in this case US and China, and whoever loses it, will suffer tremendous, if not terminal, civilizational damage.** That much is clear to both Beijing and Washington, which is why as part of Trump's emerging Industrial Policy, the push for AI supremacy is rapidly emerging as this generation's Manhattan Project, one which must be won at all costs, or else suffer a humiliating loss to China, which has far fewer regulatory constraints as it sprints to overtake the US in everything from chips, to data centers, to LLM models.

Of course, winning the AI race will be extremely expensive; in fact it will be the most expensive undertaking in history. As JPMorgan calculated recently, just the next five years in the AI cycle, [will cost over $5 trillion](#), funded with everything from operating cash, to debt, loans, private credit and more. More importantly, **the US government itself will have to plug a hole that could potentially be bigger than $1 trillion.**




Of course, one can counter that "*it's only money",* and when push(*ing CTRL-P*) comes to shove, the Fed will simply be tasked with printing the shortfall to fund the biggest infrastructure project in US history, one in which Trump will certainly not allow failure (inflation and other side effects be damned - there is

an arms race to win). After all the Fed has already printed tens of trillions, what's another $5.

This is a point we have been screaming for some time now, namely that the *"money is not the problem"* since AI is the new civilizational arms race, and **"capex will eventually be funded by government directly"** (a point JPMorgan has since confirmed). It's also the reason for the tremendous surge in gold in recent months as the coming debasement is as much to fund AI as it is to fund budget deficits... As for our punchline, well "**you can't print energy**"...

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The money is not the problem: AI is the new global arms race, and capex will eventually be funded by governments (US and China). If you want to know why gold/silver/bitcoin is soaring, it's the "debasement" to fund the AI arms race.

But you can't print energy

> **zerohedge** @zerohedge
> has anybody done the math how many hundreds of new nuclear power plants the US will need by 2028 for all these AI daily circle jerk deals to be powered?

11:03 AM · Oct 14, 2025

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... something even Elon Musk agreed with.


Well, if ***energy*** and not ***money*** is the true gating factor for AI expansion, then the Trump admin (and the US in general) has a huge problem on its hands. That's because while the US can print the world's reserve currency, and is still the world's leader in energy output, China - which has zero regard for such trivialities as the environment and is going full blast with its record number of coal plants to supplement its "clean" energy - is now growing its energy output at an exponential pace.

So skewed is the imbalance in future energy growth that overnight, Goldman published a report titled "*Power Bottlenecks Could Slow the US in the AI Race With China*" (available to pro subscribers) in which the bank calculates a stunning conclusion: **by 2030, China will have effective power spare capacity equivalent to over three times the world's expected data center power demand (~400 GW vs. ~120 GW), positioning it to fuel rapid data center expansion. Meanwhile, the US will be virtually unchanged from where it is now!**

Here is the snapshot summary of the must-read note, which lays out the problem as follows:

- The global AI race is heating up, with fierce competition centered on chips, rare earths access, energy supply, talent, and AI adoption. As AI demands massive power, **reliable and ample power supply is likely to**

**be a key factor shaping this race, especially because power infrastructure bottlenecks can be slow to solve.**

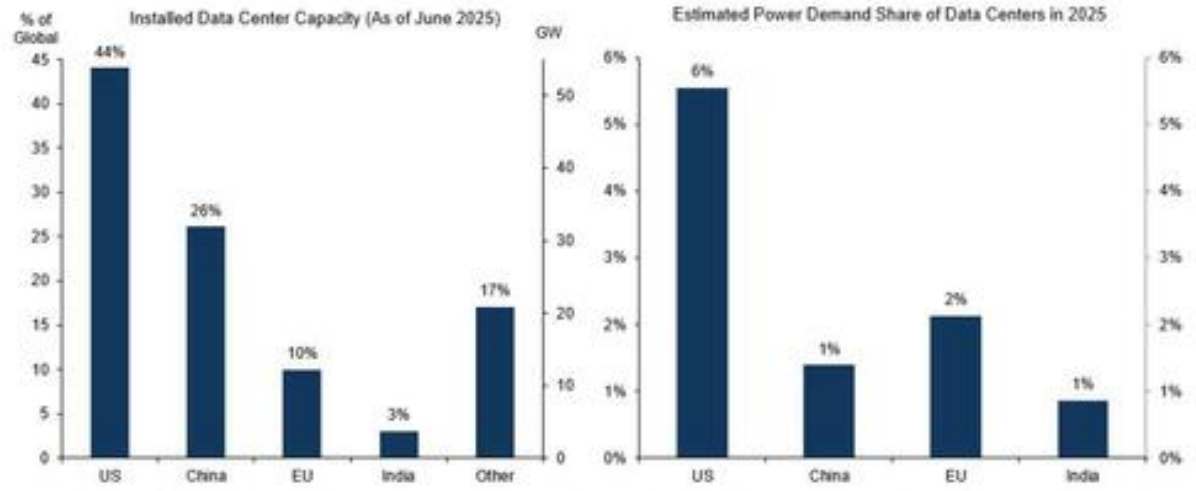
- While the US is now the frontrunner (hosting 44% of global data center capacity), power bottlenecks are likely to at least temporarily slow its progress by 2030, especially in its regional power markets with the lowest spare capacity. **Eight out of the 13 US regional power markets are already at or below critical spare capacity levels.** In contrast, China—the world's second-largest data center hub—already has major power spare capacity **and is planning to boost power supply, across renewable, coal, natural gas, and nuclear sources.**

Needless to say, unless the math changes - fast - the outcome for the US would be catastrophic, and unless Trump immediately announces one or more massive "Manhattan Projects" meant to kickstart a new golden age for US energy, throttled by years of "green" lunacy, and unleashes trillions in government-funded energy projects, the AI war is all but lost.

Below we excerpt from the full note which we hope everyone in the Trump admin, and especially those in the Dept of Energy, read as doing nothing is not an option.

First, the facts: the US is leading in the global AI race, demanding more power supply. The US currently has 44% of global data center capacity or over 50 GW (LHS, Exhibit 1), in line with the combined capacity of the next four largest data center hosts: mainland China, the EU, Japan and Korea, and India. Goldman estimates that data centers already drive 6% of US power demand (RHS, Exhibit 1), and the bank's equity analysts expect this share to rise to 11% in 2030E.

**Exhibit 1: The US hosts 44% of global data center capacity**

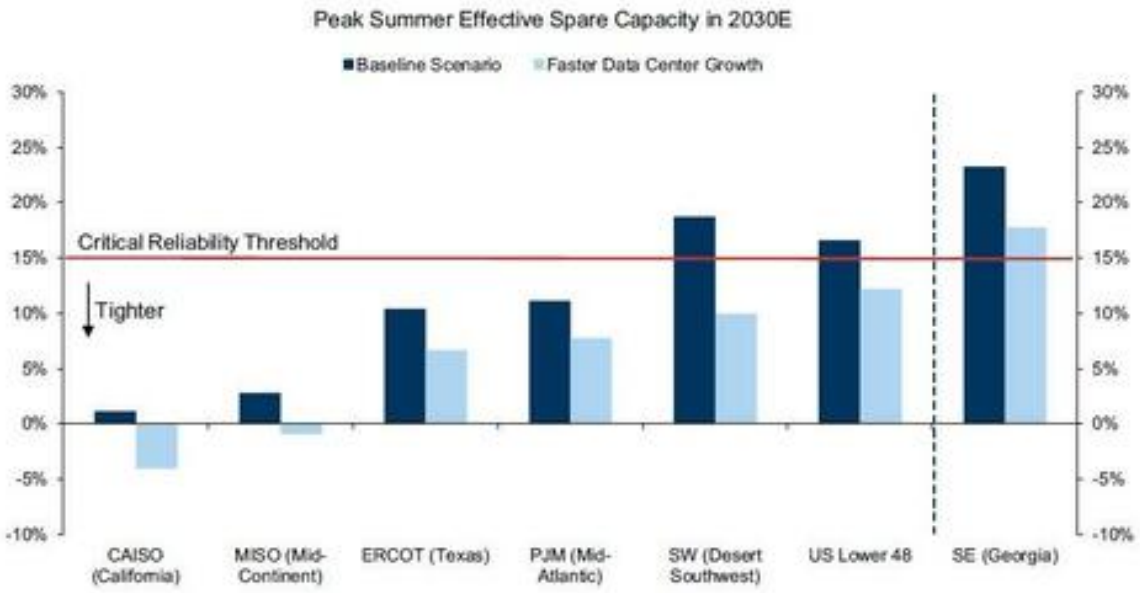



LHS: the IEA data center capacity across economies; RHS: We use the IEA data center power capacity with ~50% utilization assumed by the IEA and 2025 total power demand in each economy estimated on ytd yoy power demand growth to calculate the power demand shares.

Source: EIA, IEA, Wind, Haver, Goldman Sachs Global Investment Research

However, as we have frequently discussed this year and as shown in the chart below, **US power markets are already tightening.** Specifically, US peak summer effective spare power generation capacity, the bank's summary measure of power availability and reliability, **has decreased significantly from 26% five years ago to 19%, approaching the 15% critical threshold in the power industry.**

**Exhibit 2: The national and almost all regional power markets in the US are likely to become critically tight by 2030, especially in a scenario with faster data center growth**




Demand assumptions in the baseline scenario: peak summer demand is based on 2022-2025 average growth rates for the US and regional power markets growth. Demand assumptions in faster demand center growth scenarios: we allocate our expected US total data center power demand growth across regional power markets based on their competitiveness with power availability as the key driver of data center growth. Supply assumptions: future power generation capacity is based on the EIA power generation capacity schedules.

Source: Goldman Sachs Global Investment Research

Following decreases in spare capacity, **eight out of the 13 US regional power markets are already at or below critical spare capacity levels**. This US power market tightness has already triggered significant spikes in both real-time power prices last summer and power generation capacity prices in the PJM market, which includes Virginia, which is the world's data center capital

In contrast, China already carries significant spare capacity in its power grid, which will only expand further.


Please refer to Footnote 1 for the definition of peak summer effective spare power generation capacity. For the US, future power generation capacity is based on the EIA power generation capacity schedules and peak demand growth is based on 2022-2025 average growth rates. For China, we forecast future power generation capacity based on China's energy transition targets and the 15th Five-Year Plan, and forecast peak demand growth based on the relationship between total power generation growth and GDP growth in 2021-2025 and our economists' GDP growth forecasts, adjusted for higher data center power demand growth that the IEA forecasts to exceed the current trend.

Source: IEA, Wind, EIA, Goldman Sachs Global Investment Research

**What explains this divergence between power market tightening in the US but easing in China?**

In the US, there are three contributing factors to the tightening trend

- **Solid power demand growth,** which is mainly driven by data center growth (although Goldman expects much larger increases in China power demand, which is ~140% larger than the US market, given faster China GDP growth).
- **Capacity under-building,** resulting in insufficient renewable and natural gas power build-up to offset scheduled coal retirements.
- **Power storage and other newer technologies remaining too limited to fill the gap.**

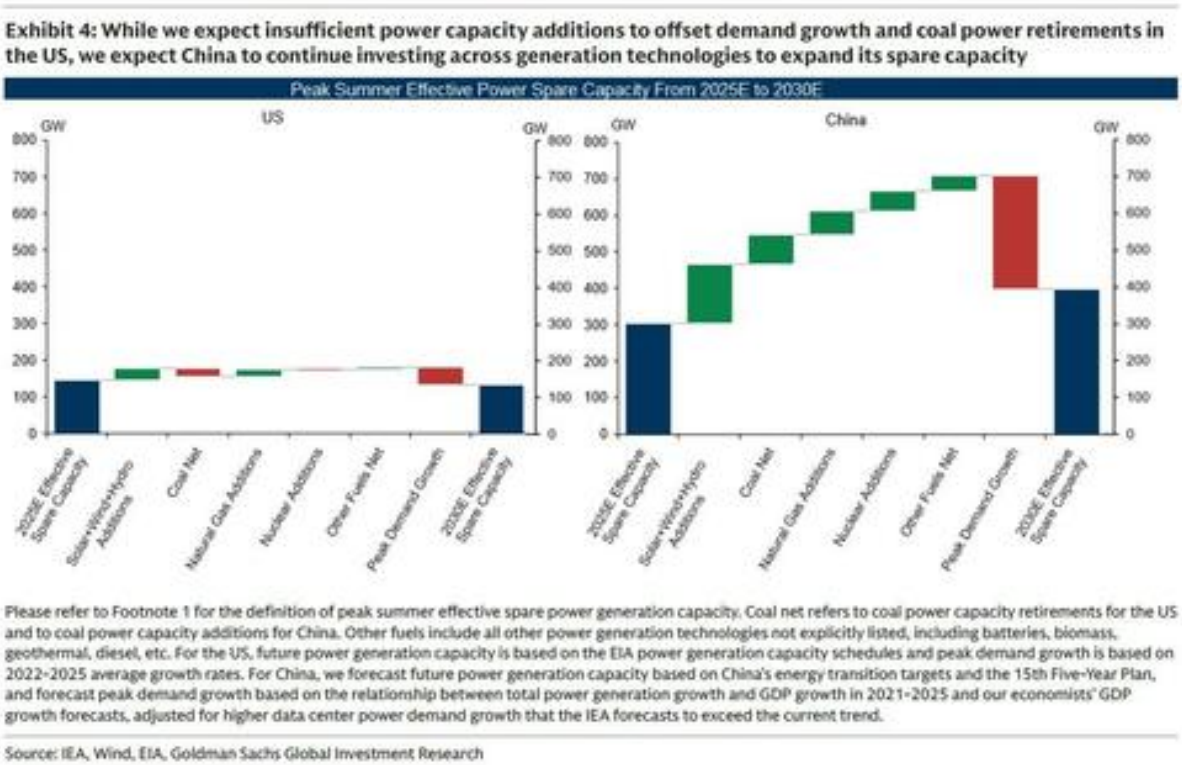
The problem, in a nutshell, is that while the US has much more total capacity, its far more limited effective spare power capacity **will act as a bottleneck for further data center developments in the US,** especially considering the multi-year timeline across generation technologies needed to bring power capacity into operation that **has been prolonged by the current long queue for natural gas power turbines.**

While US policy efforts could help, Goldman thinks that **they are unlikely to reverse the tightening trend in the next few years.** The bank's future power generation capacity is based on the EIA power generation capacity schedules, which are subject to changes, especially after 2027. And while Goldman

expects no incremental gas or nuclear capacity beyond current plans by 2030 given the construction timeline and supply-chain constraints, **policy efforts could incentivize more renewable capacity additions and/or delay retirements of coal power up to technical limits.**

China, in contrast, has been **increasing spare power capacity following its power crunch in 2021 by substantially ramping up all power supply sources,** especially renewables and coal, but also natural gas and nuclear power, to ensure energy security.

And here, in one (split) chart, is why the US is already losing the AI war with China.




Consistent with China's new 15th Five-Year Plan and long-term carbon targets, Goldman expects **China's effective power spare capacity to rise further to 25% of peak summer demand in 2030E,** which is sufficient but not excessive for energy security (Exhibit 3). With a power market twice the size of that of the US, **a higher effective spare capacity ratio in China means even higher absolute levels of effective spare capacity of around 400 GW in 2030E, equivalent to more than three times expected global total data center power demand.**

Therefore, China's spare capacity is expected to remain sufficient to accommodate China's potential data center power demand growth while the

US will struggle significantly to energize the dozens of data centers coming on line, unless there is a revolutionary overhaul in the entire US power system.

*Much more in the full note available to pro subs.*