



POWER ⚡ THE FUTURE

ROCKET FUEL FOR AMERICA'S AI MOONSHOT 2025

APRIL 2025

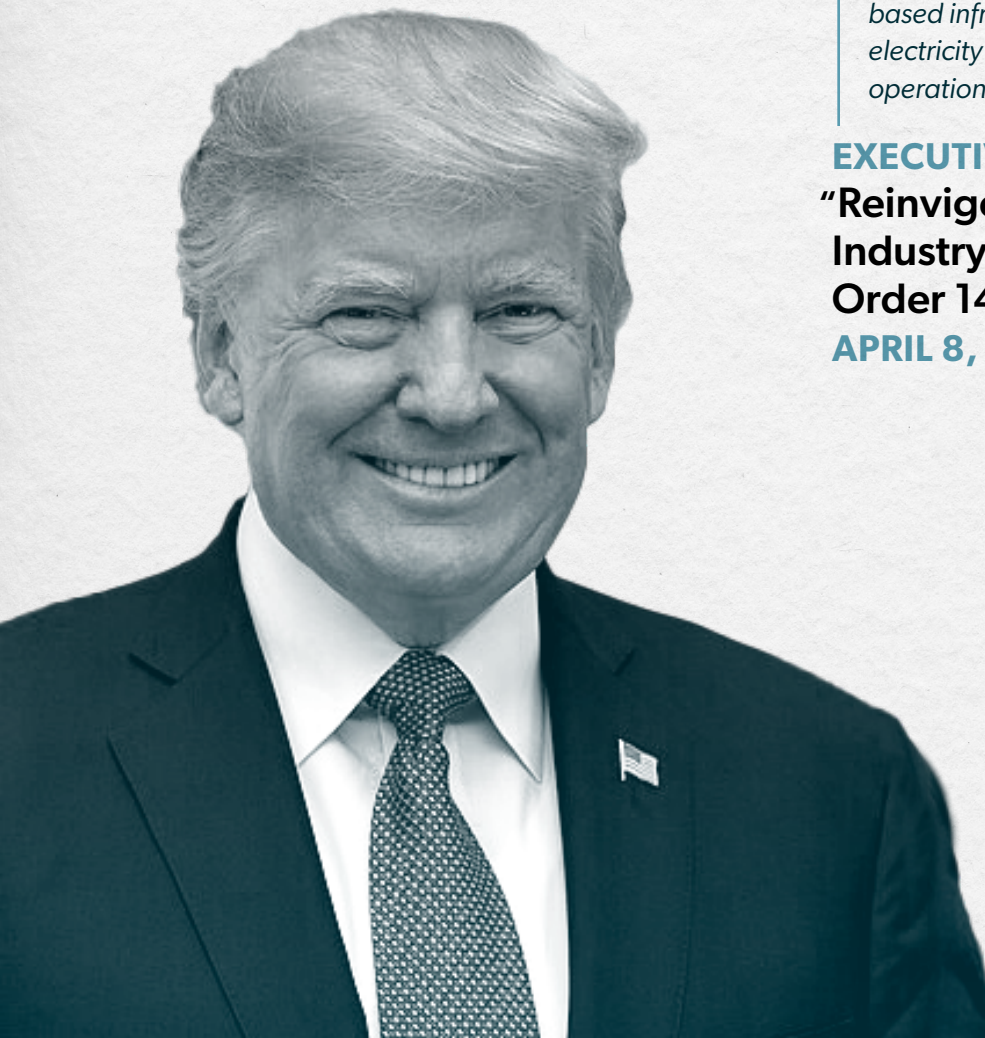
"America is blessed with an abundance of energy and natural resources that have historically powered our Nation's economic prosperity. In recent years, burdensome and ideologically motivated regulations have impeded the development of these resources, limited the generation of reliable and affordable electricity, reduced job creation, and inflicted high energy costs upon our citizens..."

...It is thus in the national interest to unleash America's affordable and reliable energy and natural resources. This will restore American prosperity — including for those men and women who have been forgotten by our economy in recent years. It will also rebuild our Nation's economic and military security, which will deliver peace through strength."

EXECUTIVE ORDER¹

"Unleashing American Energy"

JANUARY 20, 2025



"This order revokes certain existing AI policies and directives that act as barriers to American AI innovation, clearing a path for the United States to act decisively to retain global leadership in artificial intelligence..."

...It is the policy of the United States to sustain and enhance America's global AI dominance in order to promote human flourishing, economic competitiveness, and national security."

EXECUTIVE ORDER²

"Removing Barriers to American Leadership in Artificial Intelligence"

JANUARY 23, 2025

"...The Secretary of the Interior, Secretary of Commerce, and the Secretary of Energy shall identify regions where coal-powered infrastructure is available and suitable for supporting AI data centers; assess the market, legal, and technological potential for expanding coal-based infrastructure to power data centers to meet the electricity needs of AI and high-performance computing operations..."

EXECUTIVE ORDER³

"Reinvigorating America's Clean Coal Industry and Amending Executive Order 14241"

APRIL 8, 2025

¹ <https://www.whitehouse.gov/presidential-actions/2025/01/unleashing-american-energy/>

² <https://www.whitehouse.gov/presidential-actions/2025/01/removing-barriers-to-american-leadership-in-artificial-intelligence/>

³ <https://www.whitehouse.gov/presidential-actions/2025/04/reinvigorating-americas-beautiful-clean-coal-industry-and-amending-executive-order-14241/>

EXECUTIVE SUMMARY

The race to develop artificial general intelligence (AGI) will be the most significant economic and national security clash between the world's great powers over the next generation. In echoes of the Space Race, the United States has the assets — intellectual, capital, and energy — to win, but early overconfidence and the misguided reliance on “green” energy are unforced errors in the AI competition that the United States can not afford to lose.

Of the three, somewhat mutually reinforcing, pillars for a workable AGI development strategy — technological prowess, liquid capital markets to support the massive investments required, and available and affordable energy sources — only the last of these is meaningfully imperiled in America. This is not due to any resource scarcity, but because too many leaders have embraced energy sources that undercut our competitive edge in energy.

If the United States is determined to win the race to AGI — and it should be — it will require an energy policy that utilizes all of our baseload generation resources, and much more of it. In the near term, that charge will necessarily be led by natural gas-fired electric generation.

Failure to correct decades of failed energy and environmental policies — to the extent they even ever formed a coherent “energy strategy” — will mean that the United States cedes leadership in a field it created — to disastrous effect for both our economy and national security. Worse, for any environmental pearl-clutching that leads to this unilateral forfeiture will be counterproductive. Our rivals do not care for nonsensical eco-regulations and, the result will be a significant defeat at the hands of China — backed by its still expanding coal fleet — and the renewed rise in economic power by the petrostates of the Middle East and Russia to an extent not seen since the 1970s. These are countries that lack a track record or any interest in environmental stewardship, especially compared to their American counterparts that are world leaders on that score.

In order to avoid another policy-driven energy and economic crisis like that suffered that decade, the United States needs to grapple both with what is at stake and the scale of coordination between the public and private sectors that will be necessary to win. As with previous economic crises having an energy nexus, the path to victory will be carved by access to domestic oil and gas production and ending dependence on the same competitors that seek to overtake and disrupt American leadership.

Throughout this study, we will prove it is imperative to take key steps in order to place the United States as the leader in the AI race. These steps include:

Using executive orders to quickly facilitate the construction of new energy infrastructure. These orders must allow for new pipelines, powerlines and power plants and utilize expedited permitting review to avoid unnecessary legal challenges.

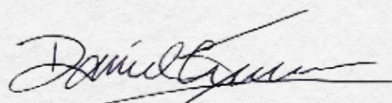
Incentivize the expansion of existing or the recommissioning of shuttered natural gas and coal plants to provide additional baseload generation.

An order from Federal Energy Regulatory Commission (FERC) providing clarity on the distinctions between behind-the-meter projects, those that interface with the grid, how to cost allocate for any transmission asset use, and other regulatory requirements for moving electrons across the grid is imperative to providing market certainty.

Quickly align America's energy production and delivery systems to meet or exceed future demand in order to lure capital investment within our border.

Energy is the backbone of modern American society and a key ingredient in our efforts to be a leader in AI, thus the urgency to implement these actions cannot be overstated. Today, the demand for energy, even absent the needs of AI is growing, and the competition for computing power will only add to this record demand. Rest assured; our advisories will not hesitate to bulldoze their way through any red tape within their borders. To lose this race means future generations of Americans will be forced to stay behind our adversaries spend many more resources to attempt to catch up.

This challenge is real and it is urgent.



DANIEL TURNER

Founder & Executive Director of Power the Future

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ECHOES FROM THE PAST REVERBERATE IN THE AGI RACE

On October 4, 1957, the Soviet Union launched Sputnik, setting off a panic in the United States and the informal Space Race that culminated with the United States catching up but surpassing Moscow for good with the first [Apollo program moon landing in 1969](#). The benefits of victory in the Space Race included the [development of technologies with civil as well as defense applications](#) that continue to make America safer and more prosperous.

On January 20, 2025, DeepSeek — a spin-off of a Chinese hedge fund called High-Flyer — released its newest artificial intelligence (AI) chatbot to wide public availability. [The announcement caught many in the US tech sector and global financial markets off guard](#). Within a week, [more than a trillion dollars in paper value had been wiped off the US stock market](#). Nvidia, the maker of the world's most advanced graphics processing units (GPUs) essential to AI model training and, for many casual market observers the face of the AI sector, [lost a staggering \\$589 billion — 17% of its market value — in a single day, an ignominious US \(and therefore global\) record](#).

OpenAI's ChatGPT — arguably the generalized name brand and leader in AI chatbots — was supplanted by DeepSeek in the Apple iOS App Store the same week. Many pundits and academics breathlessly called this the American AI sector's "Sputnik moment." ^{4,5,6,7,8}

Despite that cliché being used, reused, and ultimately abused in the news cycles — there are some precedents of the Space Race that may be of use as policymakers consider the AGI Race.

The first of these: the actual technology put into service by the Soviets with Sputnik and the Chinese with DeepSeek is not actually all that impressive.

Sputnik was a metal orb filled with batteries and a radio transmitter. The transmitter lasted as long as the batteries, going quiet within three weeks. [Within three months, Sputnik had burned up in the Earth's atmosphere](#). The Earth's first artificial satellite's utility to the Soviet Union was less about military application or intelligence gathering, but propaganda. And it was very successful at that — the detectability of Sputnik's radio pings, its flight pattern over the United States, and the ability of even amateur observers — in the right conditions — to see it with a basic pair of binoculars [incited panic and much handwringing about America's technology and defense-industrial complex falling behind](#).

The sudden, unexpected incipient threat of a foreign competitor in new economic and, more pressingly, military domains awakened policymakers to the potentialities of a new industrial sector, its risks and its benefits. [Rocket technology was then and remains dual use](#). It can have economic benefits from the deployment of satellites providing terrestrial services — something that could have been still limited to the realm of science fiction in 1957 — but also lends itself to the development and thinly veiled testing of intercontinental ballistic missiles (ICBMs).⁹ Not only were the Soviets, it was feared, eating our lunch in engineering and mathematics, the oceans would no longer be enough to protect the United States in the next great power war. Such was the panic Sputnik induced.

DeepSeek's chatbot, though generally able to keep pace with ChatGPT and other Western rivals, is ultimately derivative. [Despite initial claims that the company lacked access to high-end GPUs of the sort developed by Nvidia due to Western sanctions](#), and statements from DeepSeek's parent that the model was trained for a fraction of the price in terms of both dollars and energy used to establish its American rivals ([\\$6 million for the former and untold billions for the latter](#)), none of these assertions have proven true. DeepSeek had access to large numbers of Nvidia GPUs that were on, or just behind (deliberately, for the purposes

⁴ Just a sample: <https://www.npr.org/2025/01/28/g-s1-45061/deepseek-did-a-little-known-chinese-startup-cause-a-sputnik-moment-for-ai>

⁵ <https://www.newyorker.com/news/the-financial-page/is-deepseek-chinas-sputnik-moment>

⁶ <https://www.washingtonpost.com/opinions/2025/01/31/deepseek-sputnik-competition-trade>

⁷ <https://www.uciicc.org/interview/beyond-the-headlines-on-deepseeks-sputnik-moment-a-conversation-with-jimmy-goodrich>

⁸ <https://www.theguardian.com/technology/2025/jan/28/who-is-behind-deepseek-and-how-did-it-achieve-its-ai-sputnik-moment>

⁹ Something the North Koreans used until recently, when they ceased bothering with disguising their ICBM tests.

<https://www.armscontrol.org/act/2013-02/prelude-icbm-putting-north-koreas-unha-3-launch-context>

of sanctions compliance), [the bleeding edge of what the chip fabricator can produce](#). Any savings on money and runtime training DeepSeek's open-source large-language model (LLMs) was the result of cribbing from other LLMs, including ChatGPT's.¹⁰ Why scrape the entire internet for data or develop a new model when you can just copy the material from someone who already has?

Moreover, DeepSeek's utility is actually worse – and that is by design. It is [prone to lapses, having been trained by other computers rather than humans](#). While anodyne answers and actions can be undertaken by DeepSeek comparably to its rivals like ChatGPT, Meta's Llama ([the open source design of which is closely related to DeepSeek's software development fork fork](#)), Google's Gemini, and xAI's Grok, its servility to Chinese censorship requirements mean it is actually significantly less useful than Western competitors. [Political topics or those that have innocent phrases that could be confused \(by a computer, anyway\) for political speech trigger nonresponses or the termination of user sessions lest DeepSeek's developers run afoul of the censors and Party minders in Beijing.](#)

If the issue is not related to autocracy in China, by contrast, DeepSeek is happy to defend Nazism or advocate for genocide. DeepSeek being [unencumbered by the same safeguards to prevent such despicable behavior mean it could double as utility to make malware or conduct scams](#). The differences between DeepSeek and ChatGPT are akin to the differences between botulism and Botox — related, but one of these you do not want in your head.

[As the market began to take stock of these asterisks to DeepSeek's breakthrough, most of the lost market value bounced back.](#) We shall return later to the fact that AI is also a dual-use technology just like rocketry, and so again America has been forcefully awakened to the military threat posed by great power adversary through a relatively innocuous "launch."

But strictly speaking in terms of economics, DeepSeek was less a breakthrough of engineering than the ability to plagiarize on a scale only imaginable in the high Information Age.

DeepSeek's greatest legacy may be the [forcing of Silicon Valley to invest more, and potentially in more open-source, AI solutions to bring costs down for general applications](#), just as Sputnik awoke the American public-private space sector to finally get its act together.

ENERGY DEMAND FOR AI WILL ONLY INCREASE

Despite the anxiety around DeepSeek's splashy release, there will still be need for advanced chips and significant investments by software developers to push the art of what is possible in AI, [including the Holy Grail of AGI: an artificial intelligence that surpasses human intelligence, can think and reason for itself creatively, is able to explain and rationalize its answers, and is not reliant upon — nor potentially undermined by — the human-generated content used to train it](#). Strangely, the side project of a hedge fund in Communist China may have forced the American private sector to focus on the democratization of a technology the latter invented and initially for which it initially dominated the market. More generally, [the DeepSeek moment is likely to prove additive, rather than reductive, for the demand for AI.](#)

In so doing, it makes clear the growing need for reliable energy to support AI and ultimately AGI development. If the arrival of DeepSeek's LLM model caused commentators to reach for their history books to heap on the Sputnik comparisons, [it also brought the concept of "Jevons Paradox" out of the realm of nerdy economists and into the slightly less nerdy zeitgeist of hack journalists and policymakers.](#)

The wisdom conferred by Jevons Paradox is that there are certain product categories where efficiency breakthroughs actually lead to greater overall use of the product, rather than less.

When steam engines became available in the 18th Century, they could do the work of many men in, say, a coal mine. Nearly a century into the Industrial Revolution, Englishman and Paradox namesake William Stanley Jevons postulated in 1865 that, rather than operate at a one-to-one replacement of manpower, the steam engine was used ever more widely — bolstering overall production and productivity. [He accurately predicted this trend to continue.](#) Though Luddites smashed powered machinery in the textile sector as one of the early reactionary battles against increasingly

¹⁰ This is somewhat ironic, since ChatGPT has also been accused of training its models on publicly available, but copyrighted works without approval from the rights holder. But that is another subject entirely. For a taste of the claims that DeepSeek cribbed from ChatGPT, see: <https://www.nytimes.com/2025/01/29/technology/openai-deepseek-data-harvest.html#:~:text=The%20San%20Francisco%20based%20start,field>

sophisticated productivity engines — and in so doing gave us the common nickname for those who fear new technology— [the result for labor from continued technological development for almost three centuries has ultimately been more and higher-paying jobs, even in the event of near-term labor disruption for certain job categories.](#)

Jevons Paradox has been seen in other sectors, and as technology has advanced seems to recur only more frequently. Take for example lighting. As whale oil gave way to kerosene, then to the incandescent light bulb, then to fluorescent light, and finally to modern light-emitting diode (LED) technology, cost and energy use have gone down while lighting efficiency has gone up. [However, today the overall energy bill for lighting is about the same.](#)

The reason is that we are using more lighting than ever before due to its abundance — each advancement made the dark places a bit brighter and democratized accessibility to lighting in developing countries where it was previously unaffordable.

One's view on the balance between energy use and climate on the one hand and improving the lives of the world's poorest on the other will inform whether they think this is a good thing or not. [Expect to see similar overwrought missives in liberal circles as the developing world gets greater access to affordable air conditioning, refrigeration, and consumer technology](#) — likely from a first-world critic writing from a laptop, drinking a cold beverage in his or her temperature-controlled city loft. [Oh wait, that is already happening.](#)

Jevons Paradox has also swept through the semiconductor industry, though somewhat invisibly to consumers until DeepSeek thrust the term into the lexicon. As chips have become cheaper — [in some categories verging on full commoditization](#) — their use has exploded. [Reduced energy demand from cheaper and more efficient chips at the individual processor level are washed out by their ever-broader application and additional need for energy-intensive manufacturing capacity.](#) Computer chips are now ubiquitous — embedded in cars, fitness trackers, even toothbrush heads and dog toys, the L.A. Gear sneakers you thought were so cool as a child,¹¹ and everything in between.¹²

¹¹ LEDs themselves are semiconductors. <https://www.complex.com/sneakers/a/gerald-flores/how-light-up-sneakers-work>

¹² For a nice synopsis of the chip industry, with a whistlestop tour of its history beginning with the invention of the transistor in the United States in 1947 see: <https://www.bbc.com/future/bspoke/made-on-earth/how-the-chip-changed-everything>

¹³ <https://www.statista.com/forecasts/1474143/global-ai-market-size>

¹⁴ <https://www.goldmansachs.com/insights/articles/ai-poised-to-drive-160-increase-in-power-demand#:~:text=A%20single%20ChatGPT%20query%20requires%202.9%20watt%2Dhours%20of%20electricity%2C%20compared%20with%200.3%20watt%2Dhours%20for%20a%20Google%20search%2C%20according%20to%20the%20International%20Energy%20Agency>

One can expect the same to be true of artificial intelligence. More efficient chips and models will yield more use.

A market worth an estimated \$184 billion in 2024 is forecast to more than quadruple to \$826 billion by the 2030.¹³

AI and AGI may permeate product categories we cannot foresee ([perhaps breaking through in autonomous vehicles, replacing your travel agent, or assisting in healthcare diagnostics and treatment](#)). DeepSeek, to the extent it can be credited for anything, is a major signal that the Jevonian feedback loop of lower prices and more use is underway in earnest in the AI space.

[Within the market ripples created by DeepSeek's splashy arrival, utilities and energy companies that were buoyed by forecasts of significant increases in domestic electricity demand driven by power-hungry AI clusters and datacenters also saw their share prices suffer.](#) As we now know, the concept that DeepSeek managed an engineering miracle and significantly reduced the significant energy inputs needed for advances in AI is at best an overstatement, at worst wholly untrue. Moreover, if AI is indeed subject to Jevons Paradox, then it does not matter. [More AI use, even if more efficient, will further commodify its most broadly useful applications.](#)

Currently, the most advanced ChatGPT features are behind a paid subscription.

According to the International Energy Agency, a single basic ChatGPT query uses 2.9 watt-hours of electricity, nearly ten times the 0.3 watt-hours needed for a Google search.¹⁴

If OpenAI achieves greater efficiencies and drives down that energy cost, subscription prices may face downward price pressure encouraging more searches on ChatGPT, resulting in net energy use that is flat or, likelier, growing.

Indeed, [we saw a subsequent recovery in share prices of the energy companies linked to the "AI play" similar to that of the tech companies and AI startups themselves in the weeks following the DeepSeek "flash crash."](#) At the same time, bespoke or national security applications of AI will continue to draw investment and prioritization, needing ever more energy inputs due to the lack of open-

source models on which to piggyback, as DeepSeek did with Meta's Llama and other LLMs. [As Dan Ives of Wedbush Securities colorfully describes it: "This is an AI arms race, and the Temu of AI — DeepSeek — is not changing that..."](#)

[As an example of these trends playing out in the real world, Northern Virginia has some of the largest datacenters in the world, serving private customers and the federal government.](#) It is estimated that 25% of the Commonwealth's electricity is already consumed by datacenters.

By 2030 under a higher growth scenario, 46% of Virginia's electricity will be serving datacenters, primarily due to AI modeling growth and the need for storage to feed it. Even a low-growth scenario sees datacenter's share of electricity demand grow to nearly 30% by the end of the decade.¹⁵

[This growth is already derailing Virginia's unrealistic 2045 for 100% "clean electricity" production.](#) The Commonwealth previously had no new fossil power plant projects planned, but reality has now set in. [Coal plants serving its market are pushing back retirement dates](#) and [Dominion Energy has proposed a new gigawatt natural gas-fired power plant to feed growing demand, and is now facing the familiar fight from environmental groups.](#) projects to provide more electricity generation. If these projects fail to move forward and in a timely fashion, the demand growth will be unsustainable. The sooner energy supplies align with this forecasted demand, the more certainty there will be for the huge capital investments to demonstrate AGI.

Morgan Stanley estimates that energy demand for AI will grow by 70% annually, equaling the power demand of Spain by just 2027.¹⁶

The trillions of dollars in datacenter investment this represents will flow to where the energy can be tapped. [For energy supplies leading to datacenter development, it is a "build it and they will come" strategy.](#)

Just as with the news of ChatGPT's supposed demise, DeepSeek's supposed killing of future domestic energy demand growth is greatly exaggerated. However, that does not mean that the market has adequately assessed the right energy mix to meet the moment.



Jumping back in time: with Sputnik as the starting gun, the Space Race was on. As backyard rocket hobbyists and readers of *Rocket Boys* (re-released under the anagrammed title *October Sky* to coincide with the release of the [movie of the same name](#)) know, [the biggest challenges with devising successful rocket designs are generally fuel and thrust management and — relatedly — maintaining stability of the vehicle.](#) The trials of escaping Earth's gravity, unsurprisingly, are as applicable today as in the late 1950s and — while reliability has improved, we still not always get it right. There is a reason that "rocket science" is synonymous with "brain surgery" in the lexicon of difficult tasks requiring great intelligence. [As became a popular saying early on among American engineers in the field: space is hard.](#)

Setting aside aerodynamics and the endless riddles of turbulence from this discussion, fuel management issues are pretty straightforward, conceptually speaking.

Rocket designers needed fuels that burn only when they are supposed to; that burned at a consistent rate ("lumpy" deliveries of thrust could undermine vehicle stability or cause a "rapid unscheduled disassembly," engineering jargon meaning "rocket go boom"¹⁷); ***and were easy to handle.***

¹⁵ See page 13 of EPRI Report available here: <https://www.epri.com/research/products/000000003002028905>

¹⁶ <https://www.morganstanley.com/ideas/ai-energy-demand-infrastructure>

¹⁷ For the debate on the history of this euphemism, see: <https://space.stackexchange.com/questions/10022/who-coined-the-phrase-rapid-unscheduled-disassembly>

The chemical features of the fuels themselves, often paired with oxidizers to facilitate complete combustion, combined with the physical designs of the rocket itself (e.g., nozzles and thruster designs channeling fuel, exhaust, and the resultant thrust for good) ideally put out a linear amount of force, and therefore a predictable rate and direction of acceleration behind the vehicle.

In 1958, the Juno rocket — one of many designed by the team at the National Advisory Committee for Aeronautics¹⁸ carried aloft Explorer 1, the American satellite response to Sputnik, using hydyne — a rocket fuel derived from natural gas that was invented by “[America’s First Lady of Rocketry](#)” [Mary Sherman Morgan](#).

[On April 12, 1961, the Soviets put cosmonaut Yuri Gagarin into space](#). The first manned space mission was another “Sputnik moment” for the United States. America’s response, the [Mercury missions, used a hodgepodge of modified military missiles to serve as launch vehicles, generally fueled by kerosene \(RP-1\) and liquid oxygen \(the so-called kerolox fuel mixture\)](#).

Less than a month after Gagarin’s mission, the United States made Alan Shepherd the first astronaut aboard Freedom 7, the first-manned Mercury mission. Freedom 7 was sent to the heavens upon a Mercury-Redstone Launch Vehicle powered by ethyl alcohol and liquid oxygen.

The Saturn V workhorse of the Apollo missions — up until recently the largest rocket in history, though SpaceX’s Starship is now claiming that crown — and von Braun’s masterpiece, delivered Apollo 11 to the Moon, winning the space race for America. The Saturn V’s first stage was powered by the now-familiar RP-1 kerolox mixture, with the second and third stage fueled by liquid hydrogen and oxygen. [The latter, more exotic mixture, has the benefit of having a higher energy capacity per unit of weight, or “specific energy.”](#)

As rockets and their payloads get ever larger, they require more fuel. The weight of the fuel requires more thrust to carry aloft. [That requires more fuel, on and on — in a manner superficially resembling Jevons Paradox](#).

In the 1970s, with the Space Race won, [public attention waning, and stagflation yielding budget pressures, Congress cut NASA’s appropriations and America’s development of new rocket designs largely stagnated until the 21st Century](#). The arrival of SpaceX, Blue Origin, United Launch Alliance, and other private sector spaceflight companies has injected new competition in rocket designs. SpaceX in particular has driven down costs by maximizing

reliability and reusability of its rocket stages ([dramatically recaptured on autonomous floating platforms or via “chopsticks” on the launchpad](#)). This approach requires exceptional reliability and consistency in power delivery; if there is a rapid unscheduled disassembly, needless to say there is no rocket stage to reuse.

For this purpose, SpaceX relies upon the fossil-based fuels of NASA’s early days.

The Falcon 9, the workhorse of SpaceX’s fleet, has had 464 launches as of this writing, with only three failures and one partial failure.¹⁹ [Each launch can raise several to as many as 20 satellites for both the private sector and the US government and its allies, including military and intelligence assets](#). Its reliability, [once again, is owed to its fuel source: the same kerolox mixture that put Alan Shepherd into orbit back in 1961](#).

Why have these liquid fuels had such a firm grip on rocketry for nearly 70 years? Liquid fuels — the simpler the better — have the benefits of being easy to handle, less toxic and corrosive than other more complicated chemistries or hydrogen, and are not prone to spontaneous combustion at room temperature. They can be stored until immediately preceding a mission, and do not require sophisticated fueling infrastructure associated with more volatile fuels ([though management of liquid fuels in the project through nozzles and pipes is more complex than compared to solid fuel alternatives](#)).

These fossil fuel-based products simply work best for the task at hand, and especially in the immediate challenges of the Space Race moment.

More unusual methods of reaching the heavens have been proposed, including using nuclear fission to power vehicles ([heavy, dirty, high risk, and, for now, solely the purview of the saber-rattling Vladimir Putin](#)), harnessing the solar wind ([only possible once already in space](#)), and even space elevators ([which face myriad physical and materials science barriers, relegating them to the domain of science fiction](#)). New technologies may hold long-term promise, but they were [not ready for the heights of the Space Race and remain beyond the technology horizon today, even for ambitious goals like visiting Mars](#).

¹⁸ The National Aeronautics and Space Administration (NASA) would be created later in 1958, formally replacing NACA as part of an agency reorganization to better focus resources and policy authorities for the emerging Space Race.

¹⁹ As of March 18, 2025. For an up-to-date list, trust the keyboard jockeys powering Wikipedia to scramble in a race to keep the numbers current: https://en.wikipedia.org/wiki/List_of_Falcon_9_and_Falcon_Heavy_launches

Put simply, for now and the foreseeable future, fuels derived from oil and gas will continue to dominate rocketry due to their convenience, reliability, and energy density.

ROCKET FUEL FOR ARTIFICIAL INTELLIGENCE



If the Space Race — kicked off by its Sputnik moment — was the great power competition of the 20th Century, the AI race is shaping up to be its corollary for the 21st.

As with rocketry, the various milestones along the way to AGI — whether history-making like the Saturn V or everyday miracles of science like “routine” Falcon 9 launches — will depend on abundant, fit-for-purpose energy that can power datacenters as reliably and cost-effectively as possible — [outages and downtime can be catastrophic](#).

Imagine if, during the Space Race, the United States government had declared a policy of not using fossil fuels in its space program. The effect would be to cede the entire competition to countries willing to use stable and reliable rocket fuels.

Yet, that is the policy debate currently happening around the AGI Race.¹⁹

We should be using regulatory authorities and financial incentives to support the development of baseload power generation and capacity. To the maximum extent possible, these assets should be capable of providing power to consumers, so as to avoid pitting ratepayers

seeing their rates rise — principally driven by state regulatory requirements and climate goals — while affordable natural gas and coal power fuels datacenters. Windmills in front of the meter and gas behind it will not win the hearts and minds of local communities.

The Biden Administration and tech companies made various pledges around achieving carbon-neutrality in their operations, even as the [AGI Race has created unanticipated and unprecedented demand for the type of 24/7 electricity generation for which intermittent renewables](#) are singularly unsuited.

[Some of these same tech companies are then building up fossil fuel infrastructure anyway](#), despite their climate pledges. For example, [Microsoft is supporting the largest natural gas plant in the country while also targeting carbon negativity \(not just neutrality\) in 2030](#).

Environmental activists, playing with other people’s money, openly advocate overbuilding renewables and storage assets — which not only fails to address the reliability problem but at least trebles costs and redundant infrastructure.²⁰

Even according to left-leaning economic analyses, this would cost Americans an inflation-adjusted \$5.72 trillion, or about \$2,540 per American household, every year, for 20 years.²¹

And, according to the environmentalists, 20 years is too late anyway. Moreover, renewable technologies are also overwhelmingly made abroad, particularly in China; mandates on renewables therefore [putting America into a position of dependence upon its chief AGI competitor](#).

Other countries are not so self-encumbering. [China continues to open coal plants — 2024 was its fastest pace of coal deployment since 2015, despite new climate pledges](#) — and is [racing ahead in conventional nuclear generation to support the electrification of its economy and deliver for DeepSeek-style shots across the bow of the United States and the West](#).

¹⁹ <https://www.npr.org/2024/07/12/g-si-9545/ai-brings-soaring-emissions-for-google-and-microsoft-a-major-contributor-to-climate-change>

²⁰ For an example, see the eternally divorced from reality Evergreen Action: <https://www.evergreenaction.com/blog/four-ways-states-can-meet-ai-energy-demand-with-clean-energy-1>

²¹ https://www.woodmac.com/news/feature/deep-decarbonisation-the-multi-trillion-dollar-question/?utm_source=gtmarticle&utm_medium=web&utm_campaign=wmp_r_griddecarb

Middle Eastern petrostates are announcing themselves open for business: come and build your datacenters, powered by abundant natural gas assets (and other sources should they become available), and [help diversify Saudi Arabia and the other Gulf states' economies](#) into tech. [It is working, attracting billions in foreign investment.](#)

The United States is unique in having every type of energy source in abundance within its borders. China is trying to [break its reliance on energy imports, climate promises be damned, a trend that may be accelerated due to recent trade disputes with the United States.](#) The Arab petrostates have oil and gas, but are [trying to diversify to nuclear and other sources.](#) Russia, while a meaningful energy producer, has an economy crippled by sanctions and decades of centrally planned economy follies — [in economic terms it is a gas station that sells weapons and caviar out of a backroom.](#) Only America has all of the pieces of the AGI puzzle in one place, if it can figure out how to put them together. This will require robust de-regulatory actions and efforts to address the lack of financial support for baseload generation capacity.

Therefore, any failure to meet the moment in the AGI Race will boil down to policy failures.²² As with modern famines and blackouts, the causes are not the result of Malthusian scarcity but the follies of central planning. The world, and America especially, has the food and energy it needs, but policies – whether economic, military, or otherwise – mean these inputs do not always go where they are needed. Contrary to doomsayers, [demand has always driven the identification of additional reserves to exploit or alternative technologies to fill the void.](#)

Resource scarcity is manmade, a road to hell paved by policymakers with best of intentions yielding unintended consequences, are only interested in rent seeking for favored constituencies, or a confluence of the two.

These days, scarcity is generally imposed in Western societies by radical environmentalist policy agendas.

American voters know this intuitively and made their displeasure known at the ballot box in 2024. Policy goals around climate and elitist cultural priorities that do not contribute to, or worse actively impede, their wellbeing, health, and sense of security had to go.

***Despite a majority of voters saying climate policies mattered to them when voting, when forced to rank among the myriad other policies impacting their lives — climate ranked at 19 of 28 issues.*²³**

[Republicans](#) and [many private sector stakeholders](#) are awakening to this reality. The Democrats are going through tortured soul-searching to find their way out of the wilderness in hopes of cogently meeting the American people where they actually are, and not where liberal activists wish they were.^{24,25} [On climate mandates that impinge upon people's lives, they have yet to arrive.](#)

Explicitly, consumers, facing inflation, are prioritizing economic security above distant and ill-defined climate risks.²⁶ Amid this realigning of our body politic, Washington policymakers in Congress and the Trump Administration are responding while also being briefed — and generating their first directives — on the economic and military applications of AGI.^{27,28,29,30} If legislators and executive branch officials are to craft policies to win the AGI Race, they will have to do so within the context of this political moment.

The benefits of being early movers in the AGI race therefore cannot be overstated. As AI models get smarter, the logical thing to do will be to task them with developing better AI models.³¹ This will require ever more computing power, and therefore more energy, until an AGI is developed of sufficient sophistication and reasoning capacity to unlock productivity and security breakthroughs. Dollar investments in energy needs will scale exponentially, starting with billions of dollars and gigawatts, escalating to trillion-dollar clusters and terawatts of energy.³² As with rocketry, adding more payload (in this case compute power) requires more fuel (in this case electricity). Since the AGI space is operating under Jevons Paradox, that additional fuel empowers more demand for compute power, and so on, regardless of improvements to efficiency at the micro level.

²² As Amartya Sen noted, this is why they are not seen in true democracies with market economies. <https://archive.org/details/povertyfamineses0000sena>

²³ <https://www.idea.int/blog/2024-election-year-review-climate-ballots#:~:text=One%20pre%20election%20survey%20showed%20that%2062%25%20of%20the%20electorate%20preferred%20a%20candidate%20who%20supports%20climate%20action.%20At%20the%20same%20time%20C%20climate%20change%20ranked%20only%2019th%20among%2028%20issues%20polled%20for%20importance>

²⁴ For representative election aftermath, see: <https://www.politico.com/news/2024/11/10/democratic-party-crisis-mode-00188547>

²⁵ For ongoing internal identity crisis, see: <https://apnews.com/article/democrats-congress-chuck-schumer-government-funding-shutdown-43d1acea20c34ad28d848edc08ad6375>

²⁶ Climate also ranks below immigration and other foreign policy issues: https://apnrc.org/wp-content/uploads/2025/01/2025-Priorities-Brief_FINAL.pdf

²⁷ <https://science.house.gov/2024/12/house-bipartisan-task-force-on-artificial-intelligence-delivers-report>

²⁸ <https://www.naco.org/news/congress-makes-incremental-progress-ai-policy>

²⁹ <https://natlawreview.com/article/congress-passes-defense-bill-ai-provisions-ai-washington-report>

³⁰ <https://defensescoop.com/2025/01/14/trump-pete-hegseth-defense-secretary-nominee-pledges-prioritize-ai-investments>

³¹ For more on this see p. 46 of the excellent AGI primer "Situational Awareness, the Decade Ahead" by Leopold Aschenbrenner, available here: <https://situational-awareness.ai/wp-content/uploads/2024/06/situationalawareness.pdf>

³² Ibid., beginning on p.75

The estimated costs of building out the clusters needed to produce an initial AGI, according to OpenAI CEO Sam Altman, could run as high as \$7 trillion dollars.³³

The AGI moonshot, like the real Apollo moonshot, therefore requires fuel inputs with the right characteristics. It is obvious that renewables are not fit for purpose. [Their intermittency and the lack of sufficient, long-term grid-level energy storage preclude their application for systems dependent upon near-100% uptime and availability.](#) The immense land use required for fields of windmills and solar panels raise “not in my backyard” (NIMBY) issues with local communities.^{34,35,36} This opposition — both from voters and their elected utility regulators — is likely to be even more intense if that power is to be directed towards datacenters and not dedicated to driving down proximate ratepayers’ electricity bills or maintaining the grid.³⁷ The land-use needs also require access to long-haul transmission lines to connect renewables to datacenters, often clustered in urban areas (e.g., Silicon Valley and Northern Virginia), [which are extremely difficult to permit in the face of local opposition.](#)

Yet our policies currently incentivize this economically destructive renewable deployment.

The renewable production and investment tax credits distort the electric markets and undercut coal, natural gas, and nuclear resources — the only 24/7 assets that can support AI development.

[At extremes, they enable renewable operators to place negative bids in electric markets and even incent the intentional wasting of excess energy from energy storage projects.](#) These policies should be repealed. If Congress wishes to use tax expenditures to support the grid, financial support based on capacity factors of the generation resources themselves (not to be distorted by battery storage systems that are, again, dependent upon Chinese inputs) would make more sense.

Hydropower and geothermal generation capacity is regionally concentrated due to topology and geology, again necessitating difficult-to-permit long-haul transmission assets.^{38,39} Hydropower is also not “green” in the eyes of many environmental activists, and [there are political fights about hydroelectric dams’ impact on water access and species like salmon.](#)

[Nuclear energy has become the hot trade in the AI energy space,](#) and it will be a viable competitor for meeting their energy demands due to steady current and high uptime rates — but no sooner than the next decade at best.

[The Nuclear Regulatory Commission \(NRC\) is a model of bureaucratic inefficiency.](#) Despite requiring licensees and certification applicants to pay fees — even on a per-meeting basis — the approval process for new nuclear designs is glacial. The stagnation of the traditional, light-water reactor domestic nuclear industry leaves an atrophied supply chain for the advanced materials and metallurgies needed for reactor construction, never mind the issues of sourcing traditional or new exotic fuels and their assemblies. The US no longer produces uranium in sufficient quantities, recently sourcing its nuclear energy raw material from allies like Canada (with whom we are now at trade war over other issues) and [hostile nations like Russia \(from which imports are now banned\).](#)

New designs of small, modular nuclear reactors are extremely promising and, because of their uniquely universal deployability (you can build some designs anywhere due to new, safer, self-cooling designs that do not necessitate access to large volumes of fresh water), reliable uptime, scalability, long operational windows between refueling, and lack of emissions, [check several boxes for policymakers of different political stripes as well as the tech sector.](#)

The rejuvenated interest in new reactor designs and deployment in the United States is a positive development, with both federal policies and tie-ups between big tech and new nuclear companies stoking its potential. [However, the reality remains that nuclear energy is not likely to be a real player in this space until the 2030s.](#)

³³ <https://www.wsj.com/tech/ai/sam-altman-seeks-trillions-of-dollars-to-reshape-business-of-chips-and-ai-89ab3db0>

³⁴ <https://www.instituteforenergyresearch.org/renewable/nimby-may-hurt-bidens-green-transition>

³⁵ <https://www.datacenterdynamics.com/en/analysis/nimby-lessons-for-data-centers-from-renewable-developers>

³⁶ <https://www.utilitydive.com/news/local-opposition-renewable-energy-projects-growing-sabin-report/718817>

³⁷ That friction is already playing out at FERC among utilities and behind-the-meter projects, see: <https://www.whitecase.com/insight-alert/ferc-orders-review-co-located-generation-data-centers-pjm>

³⁸ <https://www.eia.gov/todayinenergy/detail.php?id=61883>

³⁹ <https://www.eia.gov/energyexplained/geothermal/where-geothermal-energy-is-found.php>

THE ANSWER FOR REACHING THE STARS IS BENEATH OUR FEET

With all of these challenges for other fuels laid bare, the energy solution for winning the AGI race is the same as that for the space race — depending on our immense domestic supplies and production capacity for fossil fuels, particularly natural gas.

Natural gas power production already facilitates the plurality of American electricity generation at more than 40%. This is because natural gas turbines and power plants are a mature technology, can be readily scaled as needed for demand, and make use of a reliable and affordable domestic fuel source. Since the hydraulic fracturing revolution took off around 2005, natural gas prices have remained largely level and near inflation-adjusted lows even as demand has increased significantly from domestic and export utilization.

Electricity prices, a key source of consumer-facing inflation, have been driven up not by natural gas prices (with some policy exceptions in those states declining to use, or permit their neighbors, to use the fuel) but due to other environmental requirements on power plants and subsidies for renewable sources and other policy wishlist items imposing unnecessary costs on ratepayers. There are several, globally significant natural gas plays spread around the country, from the Permian and Eagle Ford shales in Texas, to the Marcellus and Utica under Appalachia, the Bakken in North Dakota, Alaska's North Slope, offshore resources, and untapped future nearshore resources in methane hydrates. If demand is not located near one of these plays, America's robust natural gas pipeline network can generally move it to where it needs to be.

Natural gas, can be sourced continuously via pipeline, stored onsite for black start needs and backup generation, and made cleaner over time through future improvements in turbine designs and utilization of waste heat, combustion and emissions improvements, and the deployment of carbon capture, utilization, and storage (CCUS) technologies. Methane can be converted to liquid forms, used to produce hydrogen, or converted to ammonia to ship energy to places where pipeline access is unavailable or impracticable, including to allies across the sea. Once seen as a bridge fuel, its many, low-emissions applications make natural gas to the jack-of-all-trades for our energy system, even backing renewable energy with peaker plants — a reality acknowledged by none other than the Biden Administration and the California Air Resources Board (CARB).

Biden's EPA actually forecast natural gas demand to grow in California by more than five gigawatts by 2040 as the result of Inflation Reduction Act blowout subsidies for renewable energy, such is the need for a reliability backstop in an intermittent world.⁴⁰

However, none of this can happen with the current regulatory and litigation risk for linear infrastructure projects.⁴¹

Natural gas to AI symbiosis can take many forms, just as natural gas has found applications in everything from power generation to plastics manufacturing to — yes — rocket fuel. Utilizing small and modular natural gas plant designs, tech companies can contract with utilities, natural gas producers, or even operate power plants themselves where needed.^{42,43} Purpose-built, “behind the meter” power plants that do not interact with the grid can avoid lengthy interconnection processes at the Federal Energy Regulator Commission (FERC) and the regional transmission organizations (RTOs) as they will not need any assets from the transmission grid, borne by electric ratepayers. Even old stripper wells and feeder lines could fuel these resources, limiting methane emissions to the atmosphere and putting what was once a liability to good use driving advancements in AI. AI in turn can even make these assets more productive.

⁴⁰ See slide 10: https://www.epw.senate.gov/public/_cache/files/4/7/477c4884-f7ba-4e8d-b0d4-72eca681849f/5A0B2B36F541C4E90A7B8585A915F438.ira-2023-02-13.pdf

⁴¹ See the brewing catastrophe in New England: <https://manhattan.institute/article/out-of-gas-new-yorks-blocked-pipelines-will-hurt-northeast-consumers>

⁴² <https://www.nytimes.com/2025/01/28/business/energy-environment/chevron-power-plant-ai.html>

⁴³ <https://www.washingtonpost.com/business/2025/02/23/ai-gas-trump-climate-fossil/>

[Alternatively, more conventional natural gas power plant deployment can be dual use, adding electrons to the grid while also feeding new datacenter demand.](#)

America has the resources — we are the number one producer and have the fifth largest reserves of natural gas, more of which will likely be unlocked as technology continues to advance (as a reminder, hydraulic fracturing and horizontal drilling are what made the US the dominant oil and gas producer, proving enviro-Malthusian concerns about “peak” energy production laughably false).^{44,45}

[Regional scarcity, such as in New England through New York’s abuse of the Clean Water Act Section 401 regulatory approval process and the endless litigation over NEPA reviews are the result of policy decisions, not actual resource scarcity.](#)

These political, trial bar-enriching, and activist fundraising-driven obstacles to natural gas projects must be overcome through reforms to our broken federal, state, and local permitting processes. [NEPA reform and the broader use of categorical exclusions for projects related to AI will facilitate deployment — something even late-stage Biden wonks acknowledged.](#) Limits on judicial review of permitting approvals should be limited to those with actual potential harms, not eNGOs from across the country. Claimants can have a day in court — not unlimited days in court.

[Activists’ claims that natural gas use for AI will drive up energy costs can be rebutted by data.](#)

Without disrupting today’s production, 40 rigs drilling three wells a month in the Marcellus and Utica shales could generate enough production to a power a 100 gigawatt cluster, and that aligns with the trendlines of advancing production in Appalachian natural gas.⁴⁶

⁴⁴ <https://investingnews.com/top-natural-gas-producers>

⁴⁵ [https://www.visualcapitalist.com/cp/visualizing-natural-gas-reserves-by-country/#:~:text=Despite%20being%20the,natural%20gas%20\(LNG\)](https://www.visualcapitalist.com/cp/visualizing-natural-gas-reserves-by-country/#:~:text=Despite%20being%20the,natural%20gas%20(LNG))

⁴⁶ Aschenbrenner, p. 84.

⁴⁷ <https://blogs.nvidia.com/blog/energy-efficient-ai-industries/#:~:text=Accelerated%20computing%20E2%80%94the,and%20operational%20costs>

Price demand signals will drive additional exploration and production, upping the rig counts in Appalachia and beyond on the path to trillions of dollars in capex into the datacenters requisite to demonstrate AGI, and this investments will be happening in some of the poorest communities in America, in dire need of the job benefits of energy and data production. Proximity to major datacenter clusters in Virginia and Ohio reduce the challenges of running pipelines and transmission lines to where the power is needed. The alternative? To cede leadership to the Middle East and China. That outcome should be unpalatable even to the most dedicated activist opponents to innovation and progress, especially considering those countries’ environmental records.

[As Jevons Paradox continues its mathematical determinism, perhaps in concert with Moore’s Law even as the shrinking of transistors approaches the limits of what is physically possible,](#) the costs and energy demand of each additional compute unit will go down.

For each molecule of methane, we will be conducting ever more operations.⁴⁷

AGI could at some point become sophisticated enough to conduct the atmospheric analyses, devise the technological advancements, and advise on the necessary policies to actually address climate change in a meaningful way, [as noted by former Google CEO Eric Schmidt](#). This would have far greater benefits than the greenwashing and renewable cheerleading that currently does nothing to remove heat-trapping molecules from an atmosphere, [the temperature trends of which are already barreling past threshold greenhouse gas concentrations tied to the 1.5° and even 2.5° targets of international climate poohbahs flying from one global climate junket to the next.](#) For a marginal allowance from the [so-called “climate budget,”](#) America can win the AGI race with little meaningful increase in climate emissions (especially when competitors will be plowing resources into the sector even if the US unilaterally withdraws), while availing the ability to more than offset the requisite emissions them thanks to future innovations empowered by AGI itself.

The alternatives are dire. As mentioned earlier, China is building power plants with little regard for emissions or safety, whether we are discussing coal or nuclear generation. Middle Eastern autocracies are openly

inviting foreign powers to come to their deserts to access abundant natural gas in exchange for data sharing, intellectual property transfers, and providing needed dollars and legitimacy to these states to paper over concerns with their other economic and foreign policies, governance structures, treatment of women and minorities, and human rights issues.

If the United States does not get serious about developing the energy resources needed to win the breakout AGI Race, it will see itself marginalized both in terms of economic and natural security. In a cruel irony, it may find itself dependent upon the economies of China — with which it is currently locked in hegemonic economic and geopolitical competition while trying to decouple from a trade perspective — and the Middle East — upon which we were dependent for imported oil in the 1970s before renewed investment made America's robust natural resources the envy (and largest source of production) of the world. The American public, if faced with the choice of more domestic fossil fuel generation or finding itself subservient to an unholy alliance of China and the Middle East for economic inputs and security guarantees, will certainly favor the former. [On that point, Vice President JD Vance has framed the policies and the politics astutely, before an audience of the world's leaders.](#) America must play to win.

CONCLUSION & RECOMMENDATIONS

Unlike the Space Race, the AGI Race does not necessitate a whole-of-government approach. America's economy is more diverse, technologically advanced, decentralized, and dynamic than that of the 1950s and 1960s.^{48,49,50} The AI advances being made today are the result of unleashed private sector animal spirits, not central government planning.⁵¹ Therefore, the government need only get out of the way and allow the American private sector and liquid capital markets — peerless in the world — to do the hard work.

Removing the impediments to sufficient energy resources — the rocket fuel of this modern space race — are the most obvious policy changes needed for America to win.

Priorities we have previously identified that the Trump Administration and the 119th Congress can undertake to win the next decade's make-or-break sprint to demonstrate AGI include:

Eliminate investment and production tax credits for renewable energy. Not only are they no longer necessary — renewables outpace coal in generation now — they distort electricity markets in ways that harm consumers and undermine reliability that is essential for AI development.

Use future Executive Orders (EOs) on artificial intelligence or to build upon the Trump Administration's day one [declaration of National Energy Emergency](#) to facilitate natural gas pipeline and electric transmission buildout through expedited permitting review not subject to legal challenge.

Legislatively reform or, using emergency powers, administratively override the beggar-thy-neighbor abuses of NEPA and Clean Water Act Section 401 permitting processes by some states at the expense of others.⁵² Moving Appalachian natural gas into New England to power AI research at the like of Harvard and the Massachusetts Institute of Technology (MIT) should not be subject to the whims of the current occupant of the governor's mansion in Albany.

California should not be able to impose its will on sectors of the national economy or disrupt electric markets in the West through its convoluted carbon incentive and cap-and-trade schemes.⁵³

[The Executive Order declaring an energy emergency is a positive start in unlocking these authorities](#), but agencies such as the US Army Corps of Engineers and the EPA need to move quickly to advance individual project approvals. Congress must legislate to put limits on frivolous environmental lawsuits at every stage of the regulatory process.

⁴⁸ <https://www.slowboring.com/p/nostalgia-economics-is-totally-wrong>

⁴⁹ <https://fred.stlouisfed.org/series/A939RX0Q048SBEA>

⁵⁰ Ironically, a vessel of our former imperial overlords, Encyclopedia Britannica, has a great synopsis: <https://www.britannica.com/place/United-States/Strengths-and-weaknesses>

⁵¹ Microsoft may not be the most objective source on this, though they provide a tidy description of private sector investments and needs here: <https://blogs.microsoft.com/on-the-issues/2025/01/03/the-golden-opportunity-for-american-ai>

⁵² <https://transportation.house.gov/news/documentsingle.aspx?DocumentID=406861>

⁵³ <https://www.politico.com/newsletters/california-climate/2024/11/20/californias-lcf-hangover-00190804>

A broad EO on energy and innovation strategy on the AGI Race, outlining the near-, medium-, and long-term policy goals of the United States. With regards to energy, the near-term goals should accelerate access to natural gas resources with directions to departments and independent regulatory commissions to accelerate approvals. As we explained earlier, winning the initial sprint is imperative – early AGI development will lead to iterative and exponential improvements in AI, giving early movers huge advantages. This does not mean the US government cannot simultaneously foster a nuclear power and fuel processing renaissance in the 2030s and beyond or explore the potential of fusion. The market is clearly examining those generation sources as complementary to natural gas for serving the immensity of forecasted electricity generation. But the AGI race will be won in the next 10 years or so. In the near term, the only realistic solution remains natural gas and existing coal units.

Protecting coal units from early closure due to market distortions caused by subsidies for renewables or an imbalanced regulatory environment.

The Trump Administration has offered waivers for EPA regulations like Mercury and Air Toxics Standards (MATS) and authorized the use of Federal Power Act Section 202(c) to prevent the shuttering of existing fossil plants prematurely.^{54,55} Congress should provide regulatory and market certainty by putting these types of reforms into statute. In one of his coal-related Executive Orders, [President Trump even specifically called out AI development as a reason for his action](https://www.whitehouse.gov/presidential-actions/2025/04/strengthening-the-reliability-and-security-of-the-united-states-electric-grid).

An order from FERC providing clarity on the distinctions between behind-the-meter projects, those that interface with the grid, how to cost allocate for any transmission asset use, and other regulatory requirements for moving electrons across the grid is imperative to providing market certainty. The early days of applications from power generators in concert with datacenter operators have moved slowly, uncertainly, and on a case-by-case basis. That is insufficient to the task at hand.

Incentivize the expansion of existing or the recommissioning of shuttered natural gas and coal plants to provide additional baseload generation. AI datacenters can be placed anywhere and need minimal manpower to operate and maintain (operating the power plants will provide more good-paying jobs than the datacenters themselves), making placement near the natural gas resources not only feasible, but ideal. Colocation or short runs of transmission lines will be easier to site and permit, particularly in rural areas. The investment and resulting wage and tax revenue will be a boon to these communities, especially those in Appalachia that have borne the brunt of the economic fallout from the War on Coal of prior administrations.

The pundits have made much of the DeepSeek “Sputnik moment” in the race for AI. We hope we have demonstrated that this initial, inch-deep metaphorical comparison misses the deeper and more interesting comparisons between the Space Race and the AGI Race. Winning the Space Race supported America’s national pride advanced its military sophistication, and facilitated innumerable benefits to consumers in everything from water filtration to GPS.

Winning the AGI Race is of similar importance. In ways we cannot predict today, AGI will shape the economies, the home fronts, and — yes — the battlefields of tomorrow. President John F. Kennedy announced his promise that the United States would put the first man on the Moon in 1961 by the end of the decade — a feat America achieved in 1969 on a ride aboard a kerosene-powered Saturn V rocket. We need a similar declaration of clear intent and purpose again today. And just as the rockets of yesteryear through to today use reliable, predictable sources of fossil energy to achieve their mission, so too must we deploy our natural gas resources to propel us into a new age of AGI discovery.

⁵⁴ <https://www.whitehouse.gov/fact-sheets/2025/04/fact-sheet-president-donald-j-trump-lifts-burdensome-epa-restrictions-on-coal-plants>

⁵⁵ <https://www.whitehouse.gov/presidential-actions/2025/04/strengthening-the-reliability-and-security-of-the-united-states-electric-grid>