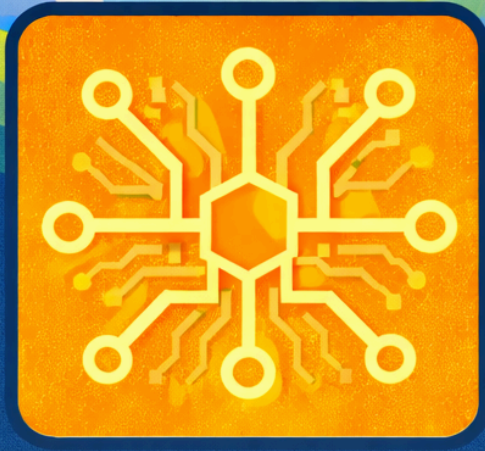# LESS THAN NET ZERO

A national electrification strategy
powered by AI demand, not taxpayer sacrifice.

Scott Jellen

LESS THAN NET ZERO

How AI Can Fund Americans' Electrification

A national electrification strategy powered by AI demand, not taxpayer sacrifice.

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Executive Summary

Here's the play:

- AI's insatiable energy demand becomes the foundation for rebuilding America's electric grid.

- In return for guaranteed access, AI companies fund electricity for American households.

- The result: clean, reliable, and free power for every home — and a grid ready for the 21st century.

Artificial Intelligence will soon become one of the largest drivers of electricity demand in U.S. history. Data centers, inference farms, and always-on compute clusters are no longer niche infrastructure—they are core utilities. At the same time, America's aging grid is overdue for a generational upgrade.

This whitepaper proposes a bold new structure: starting in 2030, AI companies will begin covering the cost of electricity for American households, up to a defined threshold. In exchange, they receive power access, regulatory alignment, and strategic control over the infrastructure they need most. This deal doesn't just solve a power bottleneck — it unlocks a new era of

economic growth, infrastructure modernization, and long-term resilience.

Table of Contents

Introduction: The Bargain on the Table

AI isn't just transforming software — it's transforming infrastructure. Every major breakthrough in artificial intelligence demands more electricity, more servers, and more cooling. The future of AI is not just about smarter models. It's about raw power.

And right now, America's power grid isn't ready.

The grid is aging. It's fragmented. It wasn't designed for a future where massive AI clusters run 24/7, consuming more electricity than entire cities. But instead of treating this as a crisis, what if we treated it as an opportunity?

What if AI paid to fix the grid — and we all benefited?

This paper proposes a radical but pragmatic idea: by 2030, AI companies begin footing the bill for most of America's residential electricity use. In exchange, they receive guaranteed power access, regulatory predictability, and the right to help design and expand the grid they depend on. It's a new kind of deal — one that links innovation with national investment.

The Core Proposal

Starting in 2030, the largest AI companies in the U.S. will be required — or incentivized through a federal framework — to cover the cost of electricity for American households, up to a defined threshold per home.

That threshold? Generous. Designed to cover an electrified American life: heating, cooling, cooking, charging, internet, lights — everything.

In return, AI firms will receive:

- Guaranteed power access at negotiated commercial rates.

- Regulatory certainty over long-term infrastructure commitments.

- Participation in grid modernization and expansion planning.

This is not a blank check. The model is based on a clear quid pro quo:

- **AI companies need electricity** — and will soon surpass entire industries in their energy demands.

- **The public needs relief** — especially as energy costs rise in a more electrified economy.

- **The grid needs investment** — and AI is one of the only growth sectors with both the capital and urgency to act.

Through this structure, AI becomes not just a consumer of power, but a funder of public benefit. The plan is built around a simple idea: align private needs with public outcomes.

Americans get clean, reliable, and free electricity.
AI gets the energy it needs to keep innovating.
The grid gets rebuilt for the 21st century.

Why This Makes Sense

This isn't charity. It's alignment.

For the first time in modern history, a single industry has both the motivation and the means to modernize America's most neglected infrastructure. AI companies aren't just consuming electricity they are redefining its role in the economy.

Unlike past surges in demand (factories, residential air conditioning, or EVs), AI operates at massive scale, 24/7, in concentrated clusters that stress the grid in ways we've never seen before.

Yet AI also operates on long-term horizons. Model training cycles, data center buildouts, and chip production timelines already stretch years ahead. These companies don't just need power now they need power forever.

That means they have a vested interest in:

– Building transmission lines that reach stranded renewable generation.
– Siting data centers near geothermal, nuclear, or hydro resources.
– Backstopping capital improvements that utilities can't or won't finance alone.

Let's be clear about the numbers. Covering the full residential electricity bill for every U.S. household—about 128 million homes—would cost roughly $210 billion per year.[1] That's comparable to what Americans spend annually on prescription drugs.[2] If ten leading AI firms each contributed $21 billion annually, the national electric bill could be fully offset.

Now the hook:

If AI companies are footing the bill, they suddenly have every incentive to lower the cost of electricity. That means accelerated deployment of clean energy, radical grid efficiency, and pressure to decarbonize not from regulation, but from economics.

This proposal is a natural extension of that logic. AI gets to secure its energy future — but only if the rest of the country benefits too.

It's not unprecedented. We've seen similar strategic alignments before:

- Railroads funded telegraph lines.

- Oil companies built highways.

- Big Tech subsidized undersea cables.

Now, AI companies can fund a smarter, stronger, and more equitable grid — one that delivers a dividend to every American household.

Criticisms and Rebuttals

"What if AI collapses?"
Even if the AI boom slows down, the infrastructure investments will remain. The grid gets rebuilt. The public gets decades of dividends. And the government retains the power to reassign usage rights to other high-priority sectors. This is a bet on national infrastructure, not just one industry.

"Isn't this just corporate welfare?"
No. Corporate welfare means subsidies with no accountability. This is a contract. AI firms pay retail rates on behalf of consumers, while receiving long-term energy access at premium industrial rates. The public sets the terms — and reaps the rewards.

"Won't this just benefit big tech monopolies?"
Only if we let it. The plan can include structural safeguards: multiple providers, open-access infrastructure, anti-hoarding rules. AI can fund the future — but the grid must remain a public-good framework.

"Doesn't it all start with one deal?"
Yes — and that's the point. The first agreement between a utility and an AI company becomes the prototype. Once it proves viable, it can be federalized, standardized, and scaled. The future always starts small — until it doesn't.

Implementation Model

This doesn't require a moonshot. It starts with a handshake.

All it takes is:

- **One AI company** (with massive power needs)

- **One utility** (facing upgrade pressure)

- **One state or local commission** (ready to greenlight a smarter deal)

Together, they create the first **Compute-Energy Compact** — a public-private agreement that trades power access for public surplus.

Key Components

Free Baseline Electricity
Households in the utility's service region receive a fixed free tier of electricity (e.g. **1,500–2,000 kWh/month**), funded by the AI firm's infrastructure commitment.

Tiered Pricing Above Baseline
Any household usage above the free threshold reverts to standard market rates — preserving conservation incentives and operational flexibility.

Grid Capacity Investment
The AI firm funds substation upgrades, storage capacity, and line hardening proportional to its power draw. This builds resilience for the broader public grid.

Public Oversight
Compact terms are locked into utility interconnect agreements and reviewed by the state utility commission or public power board — **no new federal legislation required**.

Transparency Clause
Each Compact must publish a public dashboard showing where the energy is going and what public benefits have been delivered.

No new law. No global framework. Just a smarter deal — built now, and built to spread.

Geopolitical Advantage

This isn't just a domestic upgrade. It's a global play.

America has already asserted its energy dominance — but now it has a chance to reshape what that dominance means. Instead of relying solely on oil exports and fossil infrastructure, the U.S. can export the energy systems of the past while pushing its own citizens toward a cleaner, electrified future.

If the U.S. builds a grid that can support AI, it can sell that blueprint to the world:

- Design standards for smart substations and dynamic load balancing.

- Operating models for public-private energy offsets.

- Hardware, software, and service contracts for global grid expansion.

We've done it before. From Boeing jets to semiconductor fabs to GPS infrastructure, America has turned domestic innovation into geopolitical leverage. The electrification model proposed here can do the same — especially as other nations grapple with rising power demand from their own AI ecosystems.

The U.S. becomes the leader not just in AI software, but in AI-era infrastructure.

And in a world defined by energy competition, that's a position worth owning.

The Threshold Principle

No one in America should worry about the price of electricity ever again.

This is not a poverty allowance. It's a prosperity floor.

AI companies, in return for massive energy access and grid influence, will cover 100% of residential electricity costs for every household — up to a generous threshold that accommodates daily life, seasonal swings, and the full electrification of heat, cooking, mobility, and work-from-home infrastructure.

That threshold is not about scarcity. It's about defining the line between human needs and industrial-scale compute.

Above the cap? You're probably mining crypto or running a server farm — and you'll pay accordingly.

But below that? No bills. No hoops. No shame. Just clean, constant electricity as a public good.

Why this matters:

- **No means testing**: Everyone benefits. No bureaucracy.

- **No surveillance**: Usage, not identity, defines participation.

- **No energy anxiety**: A future where comfort isn't contingent.

The threshold principle doesn't divide the poor from the privileged.
It draws the line between people and machines — and makes sure the people win.

The Closing Message

America doesn't need another austerity plan.
It needs a big swing — one that makes life better, not just more efficient.

AI is going to consume a staggering amount of electricity. That's a fact. The only question is whether we let that demand overrun the grid… or use it to rebuild the grid we've always needed.

This proposal doesn't ask for sacrifice. It asks for vision.

Let the AI companies pay. Not as punishment — but as participation.
In return, every American gets what they deserve:

A grid that holds up.
A home that runs clean.
And an electric bill that never shows up.

Everything in America gets better when electricity is free.

Source

[1] **Residential Electricity Baseline.**
 Based on U.S. Energy Information Administration (EIA) 2023 data indicating approximately **1,507 billion kWh** of residential electricity sold annually in the United States at an average retail price of approximately **$0.14 per kWh**, implying total residential electricity expenditures of roughly **$211 billion per year**. Estimated household count (~**128 million households**) based on U.S. Census Bureau (2023) data.

[2] **Prescription Drug Spending Comparison.**
Prescription drug spending figures based on **Centers for Medicare & Medicaid Services (CMS) National Health Expenditure Accounts**, which report total U.S. prescription drug spending of approximately **$467 billion in 2024**, and **Kaiser Family Foundation (KFF)** analysis used for contextual interpretation. Figures are cited for order-of-magnitude comparison.

Author's Note

This paper is not a policy prescription it's a strategic prototype.

It sketches a model that could exist, not one that must. The goal is to reframe how we think about energy, AI, and infrastructure not to dictate legislation or forecast a single outcome. Like the other whitepapers in this canon, it's a provocation: a test of alignment, incentives, and institutional design.

If anything in here feels too ambitious, good. That means it's doing its job.

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Abstract

See Executive Summary (p. 4).

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Versioning Note

This document was originally released publicly in July 2025 through the author's portfolio as an exploratory research paper examining the relationship between artificial intelligence–driven electricity demand and large-scale national electrification. That release constituted the first public availability of the *Less Than Net Zero* thesis but was not registered with a DOI.

Version 1.0 represents the first DOI-registered edition of this work. This version preserves the full analytical structure and conceptual content of the original July 2025 release. Updates in Version 1.0 are limited strictly to editorial and presentational refinements, including an updated cover, standardized typography and spacing, clarified section hierarchy, improved internal consistency, normalized and verified references, and the addition of formal publication metadata.

No conceptual, analytical, or structural changes have been introduced in this version. The core thesis—that rising AI-driven electricity demand can serve as a structural funding engine for national electrification without taxpayer sacrifice—remains unchanged.

A potential future **Version 1.1 ("Lab Edition")**, to be released under the same DOI, may apply standardized Lab formatting, introduce light visual elements (e.g., diagrams or tables) to improve readability, and add explicit cross-references to adjacent work within the broader corpus. Any such updates would be limited to presentation, integration, and archival cohesion.

This versioning approach ensures that the evolution of the work remains traceable, citation-safe, and consistent with the author's broader research and publication standards.