U.S. House Committee on Science, Space, and Technology
Subcommittee On Investigations and Oversight

Written Testimony
Marsden Hanna
Head of Energy and Sustainability Policy, Government Affairs and Public Policy
Google

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Chairman McCormick, Ranking Member Sykes and Members of the Subcommittee.

Thank you for the opportunity to speak to you today. My name is Marsden Hanna and I develop Google's approach to energy policies. I appreciate the opportunity to discuss the intersection of artificial intelligence and energy with the Subcommittee. As the United States races to lead the world in AI, permitting and transmission reform has become a critical lever for maintaining our country's competitive edge.

The potential for AI to accelerate U.S. economic growth is staggering. Research estimates that generative AI could result in global economic uplift of more than $4 trillion annually. Realizing these gains – while accelerating breakthroughs in science and fortifying our national security – depends entirely on America's ability to build and power the electrical infrastructure that makes them possible.

Today, we are facing a critical challenge to achieving these goals: fragmented and congested electricity grids across the country are increasingly tapped out and many can no longer support electrical load growth. After decades of flat electricity consumption, recent load growth has resulted in an all-time high demand for power. However, transmission lines, many built more than 50 years ago, are now running out of capacity to power this growth and must be expanded and modernized. The U.S. electric grid needs investment and reinvigoration to simply keep running, let alone grow.

We believe energy supply is a national security imperative. Winning the AI race requires winning the energy race. Currently, the United States is ahead of global competitors on AI development,

remaining dominant in developing AI models and designing advanced semiconductors. However, the gap is closing. The speed with which China can plan, permit and deploy energy infrastructure is a major comparative advantage. China is leveraging this advantage to deploy massive investment into meeting its demand growth, emerging as the largest investor in the global power sector. According to a 2020 report, China has completed over 80 times more high-voltage interregional transmission than the United States in recent years. To maintain our lead in the AI race, we must reverse that trend and at least keep pace with, if not overtake, the rest of the world in development of energy infrastructure.

Today's energy infrastructure permitting system in the United States is a patchwork of local, state, and federal regulations marked by bureaucracy at all levels of government. This leads to crippling timelines, paralyzing litigation, uncertainty and an overall ineffective federal permitting scheme. Critical transmission projects can take up to 10 to 15 years to permit and build. The system is riddled with single points of failure, where litigation over procedural issues can delay or kill projects that are essential for economic growth and reliability – particularly for ambitious energy infrastructure projects that can do the most to advance economic and national security interests. Since passage of the Energy Policy Act of 2005, reliance on its novel federal authorities has resulted in not a single transmission line being built.

U.S. electricity policies and statutory frameworks need urgent reform. We have endorsed the bipartisan SPEED Act (H.R.4776) passed by the U.S. House of Representatives last year. We encourage urgent action to support regional and inter-regional transmission modernization and expansion, including the advancement of robust permitting reform measures this Congress.

Three Pillars of Reform to Spur Innovation

Efforts to build transmission lines in the United States face a full stack of permitting barriers. At the federal level, this includes National Environmental Policy Act (NEPA) processes, which bundle the substantive environmental permitting laws that may trigger reviews across several federal agencies. Further, litigation risks emerge at every touch point and can result in decade-long timeline extensions for routine build outs and upgrades.

Congress can help address these problems and spur American innovation by focusing on three core pillars:

- First, **cut energy infrastructure permitting bureaucracy across the board.** Reducing permitting timelines to accelerate project schedules can help to reduce project costs and these savings can be passed on to electric ratepayers nationwide.
- Second, **establish an effective federal transmission permitting framework.** Congress can speed construction of national interest transmission lines that provide

economic and reliability benefits to power growth by reforming federal backstop authority at the Federal Energy Regulatory Commission (FERC).

- Third, Congress should establish clear procedures that **provide permitting certainty** for new energy projects. Accelerating investment in energy infrastructure requires a consistent and durable permitting framework on which investors, asset owners and purchasers of power can rely to get projects built.

1. Cut Infrastructure Permitting Bureaucracy

America must move faster by cutting infrastructure permitting bureaucracy and eliminating red tape for all electricity infrastructure, including transmission. Congress can begin by legislating a streamlined federal infrastructure permitting process for all upgrades associated with existing infrastructure within existing rights of way, including deployment of advanced transmission technologies.

We also encourage Congress to consider reforms to NEPA and other procedural statutes to speed up the process for critical transmission lines under federal review. Federal legislative reforms can also provide reasonable boundaries on the scope of reviews conducted pursuant to the relevant statute, such as by placing limits on what activities can be considered "major federal actions." In order to provide legal certainty, Congress should also establish: (1) limits on statutes of limitations; (2) clear statutory timelines in which courts must act on permitting litigation and appeals; and (3) reforms that narrow standing to litigate agency actions. We believe that litigation should be limited to stakeholders that have participated in a public comment process and stand to be negatively impacted.

2. Establish an Effective Federal Transmission Permitting Framework

The United States currently has a complex and bureaucratic dual-agency process for Federal transmission permitting, which is layered on top of a permitting gauntlet that runs across some 3,000 utilities, markets, and state, federal and tribal jurisdictions. Federal backstop permitting authority for transmission has been entirely ineffective to date: the process requires the Department of Energy (DOE) to designate a National Interest Electric Transmission Corridor (NIETC), which is a multi-year bureaucratic process combined with a NEPA review. A developer may then apply for permits within a NIETC from states, and if denied the developer can subsequently apply to FERC for a permit. At this stage, FERC conducts a lengthy review process that includes a duplicative NEPA review. Litigation over procedural issues at any stage can halt the process, at which point applicants must start over from the beginning. The current convoluted process simply is not working: over the last 20 years, the NIETC process has led to the construction of zero new transmission lines due to this combination of overly bureaucratic processes and legal uncertainty. Congress can improve and expand the process by which lines

become eligible for a federal permit by eliminating the requirements for a DOE NIETC designation and establishing a more effective process to issue permits at FERC for national interest transmission.

We urge Congress to build off of the bipartisan Energy Permitting Reform Act (EPRA) of 2024 by granting FERC permitting authority for backbone interstate transmission lines that mirrors the "certificate of public convenience and necessity" process used for interstate natural gas pipelines. The robust and direct statutory authority that Congress provided FERC to issue permits for interstate natural gas pipelines has been a key factor that has enabled timely gas infrastructure build out. This includes enabling network expansion to accommodate innovative technology advancements such as the advent of unconventional drilling techniques. The U.S. is in another era of innovation-driven growth, but lacks linear infrastructure permitting parity for the transmission grid. This is emerging as an inhibitor – rather than an enabler – of future growth.

Congress should also clarify and expand the scope of eligible transmission lines by providing clear thresholds and criteria for the exercise of federal permitting authority in order to increase the speed at which federal permits can be issued. Eligibility should include transmission lines that are critical for reliability, reducing congestion, reducing costs, increasing carrying capacity, or supporting economic growth. In Google's view, additional circumstances that should trigger FERC permitting authority include:

- Defined and modest expansions of existing transmission rights of way to enable significant voltage upgrades and allow more transmission capacity over the same or similar land;
- To enable longitudinal permitting of transmission alongside existing transportation corridors;
- If a state or local authority denies a permit for a regional transmission project that a region has approved; or
- For lines that are primarily sited within Section 368 corridors designated by the U.S. Bureau of Land Management.

3. Provide Permitting Certainty

Even with an improved, streamlined federal permitting system, large energy projects are still years-long endeavors that require long-term policy and procedural certainty. In order to win the AI race, Congress should establish a durable permitting framework and procedures to modernize America's energy infrastructure on a rapid timeframe. This framework should provide assurance to developers that projects which have satisfied the necessary permitting requirements will be completed without the revocation of authorization.

Expanding our grid is the key to unlocking vast, low-cost energy resources and driving down prices. By strategically building updated, higher voltage backbone transmission lines, the United States can benefit from massive economies of scale. Studies have shown that for every $1 invested in transmission lines, American consumers receive approximately $4 back in benefits. These improvements will reduce system-wide costs, increase reliability and power the next era of economic growth through concentrated energy buildout.

At Google, we believe in the promise of AI and we are investing heavily in the infrastructure behind it across the U.S. – many of you have seen that in your states. In just the last six months of 2025, we announced investments of $40 billion in Texas, $9 billion each in South Carolina, Oklahoma, and Virginia, $7 billion in Iowa and $4 billion in Arkansas, with more investments to come. Realizing the potential of artificial intelligence will require robust energy infrastructure, more efficient energy use and new, innovative technology solutions. I look forward to today's discussion and to working with many more of you on these investments. They are a reflection of the opportunity we see in America.