Before the Office of Policy, Department of Energy Washington, D.C. 20585

In the Matter of)	
Request for Information on Artificial Intelligence Infrastructure on DOE Lands)	FR Doc. 2025–05936
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COMMENTS OF INCOMPAS

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I. <u>INTRODUCTION</u>

INCOMPAS respectfully submits these comments in response to the Department of Energy's ("Department" or "DOE") Request for Information on Artificial Intelligence Infrastructure on DOE Lands ("RFI"). INCOMPAS commends the Department for being committed to building an abundant, secure, and resilient energy future for the nation.² As recently acknowledged by the Administration, increasing our domestic energy production is critical to winning the race for artificial intelligence ("AI") dominance. Reimagining a phrase used by the Administration, DOE should be looking at every opportunity to "build baby build." Just as the U.S. focused on building energy infrastructure during the Cold War, now is the time to build out AI infrastructure, modernize our energy grid, and deploy reliable broadband networks to ensure America's continued leadership in these areas. Achieving these goals will require federal, state, and local governments to coordinate so as to systematically remove barriers to building AI networks and infrastructure, including data centers, transmission capacity, fiber networks, pipelines, and submarine cables. The inefficiencies of building this critical infrastructure under current regulatory and bureaucratic regimes has resulted in unnecessary and costly delays, uncertainty, and unpredictability, which disincentivize the capital investment needed to keep pace with China's intensive and unbridled AI infrastructure deployments.

¹ Request for Information on Artificial Intelligence Infrastructure on DOE Lands, Doc. No. 2025-05936, 90 FR 14972 (rel. April 7, 2025) ("RFF").

² Artificial Intelligence for Energy, U.S. Dep't of Energy, (last visited May 7, 2025) available at https://www.energy.gov/topics/artificial-intelligence-energy.

³ Exec. Order No. 14179, 90 FR 8741 (2025) *available at* https://www.whitehouse.gov/presidential-actions/2025/01/removing-barriers-to-american-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.")

To eliminate these barriers, INCOMPAS encourages the Department to establish an "allof-government" approach in order to fast-track permitting, which will facilitate the deployment of AI infrastructure on the DOE sites identified in the RFI. It is important that the incentives and opportunities presented in this project include the whole ecosystem around the data center, including energy generation and fiber infrastructure. In order to achieve this, INCOMPAS encourages the Department to prioritize efficiency and transparency in the construction of these sites. To promote efficiency, the Department should utilize the latest technology in environmental reviews and permitting, consistent with the Administration's policies.⁴ The Department should also establish shot clocks, or similar time-certain frameworks, for periods of study and permitting required for this construction. If multiple agency reviews are involved, the reviews should be placed on the same shot clock in order to create greater certainty for industry. Transparent permitting procedures should be utilized, meaning that all necessary information about the steps and costs required to secure the permit should be public when industry participants file an application. Finally, INCOMPAS urges the Department to remove redundant environmental reviews. An all-of-government approach would ensure that studying the same project once is sufficient to satisfy environmental concerns for any federal agency.

INCOMPAS believes promoting innovation and competition in the AI market is critical, as prosperous and sustainable AI and energy markets are key vehicles to the Administration's goal of providing economic security for generations to come. Not only is this an opportunity to reshore American manufacturing of goods needed to deploy this infrastructure, but the country can establish an all-of-the-above energy policy for traditional energy, natural gas, and

⁴ Presidential Memoranda on Updating Permitting Technology for the 21st Century (rel. April 15, 2025), *available at* https://www.whitehouse.gov/presidential-actions/2025/04/updating-permitting-technology-for-the-21st-century/.

renewables, as well as permitting and licensing policies for new SMR and nuclear technologies that will ensure energy generation that will power the growing data center market for decades to come. Once again, INCOMPAS commends the Department for taking decisive steps to build this critical infrastructure and looks forward to collaborating with DOE and other agencies to ensure America's AI dominance.

II. QUESTIONS PRESENTED

Category 1: Interest in Solicitation:

"2. What characteristics of a site make it more or less favorable for development?"

Favorable Regulatory Environments. When choosing where to build AI infrastructure, many factors are taken into consideration. First, when deciding whether to build a data center or to purchase data center space, the amount of capital required determines whether renting or building is the best option. If an organization decides to build, the regulatory environment at the state level is a key consideration on whether it is economically and operationally efficient to build data centers in certain locations. Sales tax exemptions and property tax incentives offered by more than 25 states on data center equipment are critical to the U.S. competing globally on cost. INCOMPAS urges the Department to take steps to support those exemptions and incentives, especially in states selected for these sites. When state legislatures opposed to building data centers discourage investment by either revoking development programs or not creating new tax incentives, it creates a chilling effect on new investment, which the U.S. cannot afford if it intends to compete on a global level in the AI marketplace. DOE can help improve the state and local regulatory environment by: (1) encouraging states to attract data center investment through

⁵ AI Growth Creates Unprecedented Demand For Global Data Centers, FIERCE NETWORK (rel. Jan. 31, 2024, 11:36 AM), available at https://www.fierce-network.com/newswire/ai-growth-creates-unprecedented-demand-global-data-centers.

tax incentives and grants, (2) publicly countering negative rhetoric towards data centers, and (3) encouraging states with open-ended or unclear laws on new AI data centers to reconsider their position.

Lease Agreements That Encourage Investment. In this initiative, DOE can take several steps to make the sixteen selected sites more favorable for development. Lease agreements should be at least 50 years, if a fee simple purchase of the property is not possible. Also, in any lease agreements, DOE should provide assurances that lessees shall be released from future eminent domain claims. Our members indicate that, absent these assurances, industry would be reluctant to build billions of dollars of infrastructure or property that the government could reclaim through eminent domain.⁷ Additionally, in order to facilitate building data center cable landing stations, DOE should help secure streamlined access for beach manholes and ocean ground beds located in state and federal parks. Thresholds for maximum easement and right-ofway access costs should be set based upon reasonable and actual government costs, rather than average costs on privately owned property. Finally, to achieve the goals of this initiative, DOE should quickly prioritize outfall (or ocean bore) pipes with streamlined permits from the National Oceanic and Atmospheric Administration ("NOAA"), the U.S. Army Corps of Engineers ("USACE"), and other environmental agencies. Environmental permitting approval could take years without the right level of engagement at federal, state, and local governments. DOE will

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⁶ *RFI* at 14972 ("DOE may enter into a realty agreement to lease land to an entity or enter into an agreement for an easement over the land").

⁷ An INCOMPAS member recently encountered several issues while working with the Federal Aviation Administration to approve a property sale. The agency's agreement included a clause that enabled it to invoke eminent domain. The member argued that no lender would provide capital for a project that could ultimately be taken back through eminent domain. After extensive negotiations, this clause was released. INCOMPAS anticipates that any agreement that reserved DOE's right to invoke eminent domain in this instance would raise similar investment concerns.

likely have to facilitate communications to appropriate government entities in order to achieve its goals of beginning construction by the end of 2025.8

Other key characteristics that make a site more or less favorable to industry development include: (1) proximity to major markets and customers, (2) amount of local and state economic development incentives, labor costs and availability, (3) environmental conditions, (4) availability and cost of real estate options, (5) availability of telecommunications infrastructure and cost of utilities, (6) ability to develop redundant fiber paths and right-of-way access for further development, if needed, (7) access to natural gas pipelines for reliability (8) access to renewable and carbon-free energy to continue progress towards sustainability goals, (9) proximity to technical and engineering workforce talent as well as local universities, (10) clear and efficient local and state approval processes necessary for development, construction, and operations, (11) business friendly climates and strong partnerships, and (12) robust international connectivity via submarine fiber optic cables.

<u>Category 2: Site Information and Considerations for Data Center Design and Technology:</u>
"6. What kinds of zoning, land use planning objectives, or permitting jurisdictions are favorable for site consideration?"

<u>Permitting Reform Will Encourage Energy Sector Modernization.</u> The need for increased connectivity has led to significant investment by INCOMPAS member companies in

¹⁰ See The Economic Benefits of Natural Gas Pipeline Development on the Manufacturing

⁸ See RFI at 14972.

⁹ See What is a Data Center? Tiers, Types, and More, NLTYE SOFTWARE, available at https://www.nlyte.com/faqs/what-is-a-data-center/.

Sector, National Association of Manufacturers, 4 (May 2016), available at https://nam.org/natural-gas-study/#:~:text=In%20a%20recent%20IHS%20manufacturing,natural%20gas%20liquids%20(NGLs). See also Trade Group Urges Congress to Expedite Gas Pipeline Buildout, PERMIAN BASIN OIL AND GAS MAGAZINE (April 2025) available at https://pboilandgasmagazine.com/trade-group-urges-congress-to-expedite-pipeline-buildout/.

infrastructure such as fiber optics, middle mile, transmission, and cloud services. These investments enhance overall network quality and reliability. Permitting jurisdictions have a significant impact on how quickly this vital infrastructure can be deployed. Unless the Administration takes immediate and government-wide action, the present timeline to build out energy infrastructure will not align with the pace of growing demand. INCOMPAS' members consistently face delays in permitting and gaining access to public rights-of-way when deploying broadband and AI infrastructure, which can run as long as 40-70 months. Current regulatory barriers create unnecessary burdens, and are counter to the goals of the Administration and this initiative.

AI is estimated to increase data center power demand by 160% by 2030.¹² The International Energy Agency estimates that globally, electricity consumption from data centers, AI development, and the cryptocurrency sector could double by 2026.¹³ U.S. electricity demand is expected to rise at a 2.4% compound annual growth rate between 2022 and 2030, with data centers accounting for about 90% of that growth.¹⁴ Existing electrical infrastructure in some

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¹¹ See., e.g., Letter from Thomas Jones, Counsel for Zayo Group, LLC, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 17-79 & WC Docket No. 17-84 (fil. Oct. 31, 2019) ("[M]any local and state governments condition [its] access to public rights of way for the purpose of deploying wireline facilities on the payment of above-cost and discriminatory access fees as well as on compliance with ambiguous in-kind contribution requirements.").

¹² AI is Poised to Drive 160% Increase in Data Center Power Demand, GOLDMAN SACHS (May 14, 2024), available at https://www.goldmansachs.com/insights/articles/AI-poised-to-drive-160-increase-in-power-demand.

¹³ Electricity 2024: Analysis and Forecast to 2026, International Energy Agency (Jan. 2024), available at https://www.iea.org/reports/electricity-2024.

¹⁴ *Gen AI: Too Much Spend, Too Little Benefit*, GOLDMAN SACHS (rel. June 25, 2024, 5:10 PM), *available at* https://www.goldmansachs.com/images/migrated/insights/pages/gs-research/gen-ai--too-much-spend,-too-little-benefit-/TOM_AI%202.0_ForRedaction.pdf.

areas can handle this amount of demand, but many cannot and will need to be modernized. Local and state permitting procedures should encourage these modernizations, not hinder them.

To ensure data center development continues to occur in the U.S., the electrical grid must be modernized to support this economic growth and ensure: (1) timely access to reliable energy for large customers, (2) utilities and grid operators can move fast to build new carbon-free generation, new transmission capacity, and modernize existing transmissions through gridenhancing technologies, and (3) utilities have the programs available for large customers to support their operations with new renewables and carbon-free electricity. To facilitate this modernization, INCOMPAS supports DOE increasing access to public rights-of-way, accelerating the approval of permits, and asking state and local governments, utilities, and railroads to charge fees that are based only on their actual, objectively reasonable costs. These improvements would help streamline improvements of all necessary infrastructure.

At the federal permitting level, the need for an all-of-government approach is vital, as many agencies play a role in inadvertently deterring timely and efficient deployments. It is extremely important that not only DOE, but that all federal agencies, including the Federal Energy Regulatory Commission, the Environmental Protection Agency ("EPA"), the Federal Communications Commission, and state and local regulatory authorities understand and create policies and rules to remove bureaucratic hurdles, promote fast-track permitting, and secure financing from both private and public sources.

For example, the Team Telecom Review Process (at the Departments of Justice, Homeland Security, Defense, and State, and the Federal Communications Commission) for submarine cable landings in the U.S. (which are critical to support domestic data center development) has become complex, subject to delays, and has a lack of transparency for

applicants about why decisions are made and what risks the government is trying to avoid. The process, as it stands today, discourages submarine cable investments in the U.S. at a time where *more* investment is needed to ensure sufficient network resilience and capacity. Likewise, competing uses of maritime space is making it increasingly difficult to create diverse and resilient landings for submarine cables in the United States. Providing relief to NOAA's permitting requirements for subsea cables entering marine sanctuaries could open new landing sites.

Another example is the protracted permitting process for potential data center sites in air quality nonattainment areas. Industrial technological advancements and the rapid need for AI infrastructure require a review of the EPA's air regulatory interpretations, as many of these interpretations are overly conservative and outdated (e.g. source aggregation, at-risk allowable construction activities prior to the receipt of an air permit, fossil fuel-fired steam electric plant applicability with waste heat recovery system that does not generate steam, or cross-state air pollution applicability to power generation sites not capable of selling to the public utility grid). Ensuring the EPA and states only need to address comments directly related to the Clean Air Act and federal, state, or local air regulations would create a more streamlined application process and permit review.

Category 6: Benefits and Collaboration Opportunities:

"8- Would industry be open to partnering with National Laboratory personnel to use existing grid testbed infrastructure for research (e.g. operational impacts, security, interconnection equipment, load flexibility, protection schemes and ride-through behavior, etc.)?"

The Value of Public-Private Research Partnerships. Industry and government collaboration to improve AI can help drive energy efficient grid management and offer ample benefits to modern infrastructure. INCOMPAS commends the Department for developing this partnership, and INCOMPAS members welcome the opportunity to contribute to research that

could lead to faster and more efficient infrastructure build outs. DOE has announced an AI testbed to bring together researchers, national labs, and the private sector to research energy-efficient and/or energy-flexible AI training and inference. ¹⁵ It is also already developing AI tools to improve the way such projects are sited and permitted at the federal, state, and local levels as part of its recently launched voltAIc Initiative. ¹⁶ More broadly, the DOE's Frontiers in Artificial Intelligence for Science, Security and Technology ("FASST") program is a multi-purpose initiative leveraging the DOE's infrastructure to address issues including energy, national security, and workforce. ¹⁷ INCOMPAS commends these initiatives and implores Congress to increase funding to help DOE continue investments in AI and collaborate with industry to conduct research vital to winning the AI race.

Category 7: Economic Opportunities and Considerations:

"2 – Are there specific local tax structures that impact site selection?"

New Opportunities to Promote and Secure AI Resources. As discussed above, tax incentives significantly impact site selection. The Department can help attract industry to certain locations by advancing positive rhetoric about the benefits AI infrastructure will have on local communities. AI infrastructure will have a significant positive impact on local communities by bringing jobs, investment, tax revenue, and philanthropy. The employment opportunities for local

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¹⁵ Recommendations on Powering Artificial Intelligence and Data Center Infrastructure, U.S. Dep't of Energy, Sec. of Energy Board, Presented to the Sec. of Energy on July 30, 2024, https://www.energy.gov/sites/default/files/2024-08/Powering%20AI%20and%20Data%20Center%20Infrastructure%20Recommendations%20July%202024.pdf.

¹⁶ How AI Can Help Clean Energy Meet Growing Electricity Demand, U.S. Dep't of Energy, Office of Policy (August 2024) available at https://www.energy.gov/policy/articles/how-ai-can-help-clean-energy-meet-growing-electricity-demand.

¹⁷ FASST Factsheet, U.S. Dep't of Energy (July 2024) available at https://www.energy.gov/sites/default/files/2024-07/FASST%20Handout%20%281%29 0.pdf.

communities and their residents are significant and include diverse positions—from construction jobs, skilled trades, and operational jobs. Many of these jobs do not require a four-year degree and many data centers offer on-the-job training. Examples of employment positions include technicians, heating and cooling specialists, engineers, project managers, and site managers. Also, the investment in data centers and other infrastructure brings significant tax revenue to the community, funding important public services including local public schools and infrastructure projects. Lastly, data centers require robust local infrastructure, such as the expansion and modernization of local roads, power infrastructure, network speeds, and water systems. These upgrades benefit local residents and drive even more economic development for communities.

Finally, the RFI presents DOE with an opportunity to utilize AI to streamline permitting to mitigate increased cybersecurity threats to energy infrastructure. INCOMPAS supports many of the efforts DOE has launched, including the establishment of the Energy Threat Analysis Center (ETAC), to build partnerships between the public and private sectors to mitigate cyber threats to energy infrastructure, like DOE's recent award of \$4.2 million to Georgia Tech to develop an AI security solution. 18 The risk of cyberattacks remains high and these efforts should continue to be funded to ensure these solutions are scaled and distributed across the U.S., and that AI is utilized in the most efficient way possible.

III. **CONCLUSION**

For the reasons stated herein, INCOMPAS urges the Department of Energy to consider the above comments as it seeks to enable the construction of AI infrastructure.

¹⁸ Zac Amos, Protecting the Grid: Does AI Hold the Key to Cybersecurity?, EEPower (April 02, 2024), available at https://eepower.com/tech-insights/protecting-the-grid-does-ai-hold-the-kevto-cybersecurity/#.

Respectfully submitted,

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