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Full Committee Hearing to Identify Challenges to Meeting Increased Electricity Demand

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Chairman Lee, Ranking Member Heinrich, and Members of the Committee:

Thank you for the opportunity to testify today. My name is Jeff Tench, and I serve as Executive Vice President for North America and Asia Pacific at Vantage Data Centers ("Vantage"), a Colorado-based global developer, owner, and operator of hyperscale data centers for leading U.S. technology companies. I have spent my career building businesses and leading teams that construct and operate the most efficient, secure, and resilient large-scale digital infrastructure in the world, and I appear before you with one message based on what I have seen from my position: the greatest challenge we collectively face to our leadership on artificial intelligence (AI) today is timely access to reliable electric power.

THE BUSINESS REALITY: DEMAND IS STRONG, BUT POWER IS NOT AVAILABLE

Demand for the AI and cloud infrastructure Vantage provides is accelerating. Over the past decade, I have seen the scale and speed of hyperscale data center development grow dramatically. Five years ago, a 30-megawatt facility was considered large. Today, 100 megawatts is the starting point, with campus developments commonly reaching 500 megawatts+—and we have multiple customers seeking one gigawatt or more for AI infrastructure, the equivalent of all electrical power used in Washington, D.C.

Vantage and our peers are ready to invest. Our customers are prepared to invest and sign long-term leases to fund needed digital infrastructure in the United States. Our goal is to move quickly and deliver world-class service, yet we routinely encounter power interconnection delays and uncertainty. In addition to land and network connectivity, data centers require timely access to reliable, stable power. In market after market across the U.S., our development teams all report the same issue: we cannot get the amount of electricity we need in the timeframe we need it to build our data centers. Moreover, the quality of that power from a deliverability perspective and price volatility perspective is an increasing risk factor. Sites with near-term grid connections are scarce, and utilities are often unable to deliver on the timelines required. Without electrical power, it is not possible to build digital infrastructure. The infrastructure that supports AI — data centers, transmission lines, generation facilities — must scale rapidly if the U.S. is to remain the global leader in AI innovation.

STRUCTURAL CHALLENGES: A SYSTEM OUT OF SYNC

Utilities are often willing to provide the electrical power we need, but they operate within planning cycles, regulatory requirements, energy markets, and business models based on decade-long horizons; moreover, many of these models and rules were developed at a time well before the Internet existed and when load growth was flat. The past has not been prologue. Now, the largest barriers to tackling the challenges we face can be traced to public policies that Congress and the Administration can improve.

Energy policy is complex. Multiple levels of government influence how and when new transmission is built and new generation is interconnected. When timelines and rules are misaligned, promising investments stall and opportunities are lost. It is on this topic that Congress can lead to find a solution that will unlock capacity and, in doing so, unleash the investment that will maintain our global leadership on AI.

Vantage and our customers are prepared to continue to invest hundreds of billions of dollars in American infrastructure. We are asking for your leadership to drive a more modernized policy framework that reflects today's growth, aligns with investment timelines, and ensures that the power system is ready when and where it is needed. If we do not act decisively, we risk ceding AI leadership to countries that are moving faster to modernize their energy infrastructure.

STRUCTURAL CHALLENGES IN POWER DELIVERY: A BUSINESS PERSPECTIVE

From Vantage's perspective the challenge is clear: we cannot access power on a timeline that aligns with customer demand. In market after market, we encounter the same three challenges:

- First, interconnection timelines are too long. This is true for both new loads—such as data centers—and new energy resources coming onto the grid. Queue studies can take several years to complete. Restudies and limited transparency add further delay. This uncertainty makes it difficult for developers to plan and for customers to commit.

- Second, transmission development lags demand. Many regions are not planning for the scale of growth driven by the digital economy. Without anticipatory planning, grid congestion worsens, and costs rise.
- Third, permitting is fragmented and sequential. Transmission and generation projects must navigate multiple federal, state, and local reviews, often with overlapping or duplicative requirements. This slows down projects that are otherwise ready to proceed.

These are not new problems, but they are now hitting at a time when urgency is growing. We believe they can be solved, but it will require clear policy direction, coordination, and accountability.

At Vantage, we prefer to source power from the grid. It should be the most efficient, reliable, scalable, and cost-effective solution for our customers. But when interconnection timelines stretch years beyond our project schedules, and the buildout of grid-connected generation capacity is not keeping pace with the demand growth rate for electricity, we have no choice but to explore alternatives. That includes deploying on-site generation to serve initial loads, co-locating near existing power plants, planning developments in phases, and coordinating with utilities and state partners to locate scarce near-term capacity. These efforts reflect creativity and adaptability. They do not represent a sustainable model for national infrastructure growth.

For example, in Virginia, we built and now operate a large electrical power generation facility using natural gas to meet urgent customer needs. We had no choice because it would have taken four to seven years, or longer, to wait for utility energization of the project, which is longer than it would have taken our teams to build and fit out the data center. We proved that we can do this off-grid generation when necessary, but it is not our preference. These types of investments divert capital away from shared infrastructure that could otherwise strengthen the grid for everyone. We may face a future scenario where large portions of load operate off-grid. That is a missed opportunity for national resilience, and it reflects a system out of sync with the scale of modern demand. When data centers are integrated into the grid with the right planning and policy framework, the load can be a source of stability. Large customers invest in shared infrastructure that improves grid resiliency and supports broader system needs without impacting rates on other customers.

No single business or technical workaround can substitute for a coordinated, modern, and responsive grid. The U.S. electrical grid has not kept pace with the demand placed on it to meet the needs of today or tomorrow. That is the bottleneck, and that is where federal leadership can make a difference. Upgrading the grid infrastructure to accommodate the needs of AI data centers and other large users is essential to support this expansion and to maintain U.S. leadership on AI and benefit the entire U.S. economy and all electric grid users with more clean, reliable, and affordable energy. By creating a policy environment that encourages investment in the grid and flexibility on solutions, we can enhance its capacity and resilience, ensuring it can meet the

evolving demands of AI technology and support the continued development of AI applications to strengthen our nation's leadership on this critical technology.

POLICY RECOMMENDATIONS TO SUPPORT LOAD GROWTH

Based on our many years' experience delivering digital infrastructure around the world, we believe the following actions will make the greatest difference and urge Congress to consider them:

1. Prioritize energy infrastructure that supports high-growth sectors:

Federal permitting, planning, and funding processes should recognize the national importance of data centers and their associated power infrastructure, particularly our national security and economic competitiveness. New dispatchable power generation and high-voltage transmission that supports data centers should be eligible for expedited treatment and coordinated interagency review. This approach streamlines the permitting process, reducing the time and resources required to get projects off the ground, thereby reducing timelines and making more power available, more quickly. Further, by implementing more timely permitting, planning, and funding processes, Congress can provide the timely certainty necessary for encouraging more investment.

2. Strengthen federal authority to improve grid readiness:

Congress should reinforce the Federal Energy Regulatory Commission (FERC)'s authority to site and approve critical electric transmission infrastructure. This includes directing FERC to establish enforceable standards for interregional transfer capacity, cost allocation, and state consultation. For example, by enabling the transfer of electricity between regions, Congress can optimize the use of available power resources and reduce the need for redundant infrastructure. This can result in lower operational costs for data centers and other large end users, as they can access more affordable and reliable power.

Regarding cost allocation, we support cost allocation policies that are based on essential principles of fairness to ensure that co-location and other innovative business models for the delivery of electricity is done in a deliberate, responsible, and collaborative manner.

Congress should also explore mechanisms to improve consultations and ensure that infrastructure development is coordinated and efficient. Consultations should identify and address regional disparities in grid capacity, ensuring that all areas have access to reliable and affordable electricity. This collaborative effort is essential for creating a resilient and interconnected grid that can adapt to changing energy demands and support the growth of reliable energy.

3. Identify and support High Demand Digital Infrastructure Zones:

The federal government should identify regions of the U.S. experiencing concentrated load growth

from digital infrastructure to be declared "High Demand Digital Infrastructure Zones." These Zones would guide proactive transmission planning, interconnection coordination, and permitting alignment across agencies. This approach would help focus public and private investment toward grid upgrades in areas of strategic national importance. For example, we have been encouraged by the Administration's efforts to identify actions and resources that support the development of dispatchable power infrastructure and AI data centers. Vantage has been an active participant in these, including by responding to the White House Office of Science and Technology Policy AI Action Plan and the U.S. Department of Energy's RFI for AI Infrastructure to identify actions and resources (i.e. powered land) that could be used to develop AI data centers and supporting power infrastructure. We suggest that a similar approach could be used here to identify and catalog locations for potential zones for such high-demand infrastructure.

4. Ensure full implementation of interconnection reforms:

Recent federal efforts by FERC to streamline interconnection are promising, but they must be enforced. Enforcing these efforts is essential for modernizing generator interconnection procedures and ensuring that the electrical grid can meet the growing demands of the digital economy. FERC Order 2023 introduced critical reforms to the interconnection queue, prioritizing viable projects and ensuring they are served first. Recent actions by FERC also modernize procedures for co-located, hybrid, and flexible resources, which are crucial for addressing the dynamic and evolving energy landscape. Data centers are increasingly adopting on-site generation and hybrid solutions to enhance their energy security and reduce their reliance on the grid. This combination of load and localized generation not only supports their operational resilience but also contributes to broader grid resiliency and reduces stress on the transmission system. By streamlining the queue process particularly around studies and clustering, enforcement of FERC's actions reduces delays and accelerates the development of essential infrastructure. Federal leadership is also needed to ensure consistent implementation across regions, with transparent progress tracking and clear agency accountability.

5. Align returns with high-impact transmission projects:

Congress should direct FERC to update its transmission return-on-equity framework to prioritize projects that deliver measurable public value. This includes high-voltage lines that improve reliability, serve rapidly growing electric loads, and expand interregional transfer capacity. Current utility business models often disincentivize proactive investment in generation and transmission, creating significant barriers for data center development. Utilities nowadays frequently require unreasonably large upfront financial assurances from data center developers, which can tie up capital and deter investment. This approach not only hampers the growth of data centers but also stifles innovation and economic development. Ensuring fair and predictable returns for these high-

impact projects based on performance and system need will help accelerate private investment in the grid.

Finally, Congress should also explore federal-level financial tools to help utilities manage risk and encourage investment in generation and transmission. Loan guarantees, credit insurance, and revolving funds are effective mechanisms that can provide the necessary financial support to utilities, reducing the burden on data center customers.

CLOSING

The United States is at a pivotal moment. The AI era is not coming, it is here. This country has the capital, the customers, and the talent. But we will not lead on AI if we cannot power it. Global demand for digital infrastructure is expanding. Investment is ready. But power availability is limiting economic growth. If we want the next wave of digital infrastructure to locate in the United States, we must ensure that developers have access to reliable, timely, and scalable grid power here. With the right policies, data centers can strengthen the grid.

By prioritizing infrastructure to support high-growth sectors, strengthening federal leadership, enforcing interconnection reforms, and incentivizing high-impact transmission, we can unlock the power system needed to support America's digital future.

Vantage is prepared to invest and deliver. We bring development and operational expertise, capital, and long-term commitments to the communities where we build. Let us work together to build an energy delivery system that is ready to meet the scale and importance of this moment.

Thank you for the opportunity to share our experience. I look forward to your questions and to working together on solutions that keep the United States at the forefront of digital infrastructure, innovation, and investment.