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Benefiting from the AI boom: Options for attracting investment and reducing regulatory burdens

STATE POLICYMAKERS SHOULD:

- Enact consumer-regulated electricity legislation
- Encourage innovative power sources
- Enact "One Stop"/unified permitting
- Continue to oppose generation-portfolio mandates that push intermittent, unreliable power

The necessity for intelligence factories

Private sector giants — Google, Meta, Amazon — increasingly use Artificial Intelligence (AI). Our military depends on it for missile defense, space operations, and the "golden dome" technology that protects against threats from hostile nations. Data centers are where this process occurs. They are intelligence factories.

These will be as integral to economic strength in the 21st century as farms were in the 19th and factories were in the 20th. North Dakota is uniquely well placed to benefit if it takes the necessary steps soon. Our state can play a key role in winning the AI arms race and new cold war with communist China while improving North Dakotans' material wellbeing.

The economic potential of data centers

The construction of data centers is a booming industry, accounting for a significant share of capital expenditures in the United States. McKinsey estimates that "By 2030, companies will invest almost $7 trillion in capital expenditures on data center infrastructure globally" and that "More than 40 percent of this spending will be invested in the United States."

The construction of data centers can drive GDP growth, create thousands of high-paying jobs, and spur innovation across various sectors.

Based on a study by the Northern Virginia Technology Council, Virginia generated approximately $31 billion in supported economic output from data center construction and operations in 2023, along with supporting services, resulting in significant benefits to both state and local governments in new tax revenues. As state and local budgets come under pressure, this is a potentially vital source of new revenues, enabling the elimination of other taxes, such as property taxes.

A typical large data center (around 250,000 square feet, for example) can employ up to 1,500 workers on-site during the construction phase, many earning wages upward of $100,000 per year without requiring a college degree. For steady-state operations, more than 50 jobs can be created, and for every job inside a data center, an estimated 3.5 jobs are created in the surrounding economy.

Data centers can act as catalysts for related industries such as energy, telecom, cloud services, software, and manufacturing, spurring the development of additional elements of the data center value chain. Northern Virginia's data center boom, for instance, increased power demand, leading Dominion Energy to build new substations and transmission lines (for example, the substation project in the region's Haymarket area). Loudoun and Prince William counties, in Virginia, are now known as Data Center Alley.

Water use of data centers

One of the main concerns people have about data centers is their water use. These concerns are misplaced.

Data centers generate heat when they are being used. Unlike personal computers, which are cooled by air circulated by fans, data centers use a combination of water and air cooling, with air cooling being more viable in cooler, northern climates, such as North Dakota.

When data centers are water-cooled, they typically don't tap into the same water sources as households. Many facilities use non-potable greywater, reclaimed municipal wastewater, and water from industrial reuse. Data centers also tend to recirculate the same water in "closed-loop systems," which can cut water consumption by 50 to 70 percent.[1]

Media claims regarding water use — such as the widely-circulated claim that a data center needs up to 5 million gallons of water per day — often include "non-unique" or indirect uses, like the manufacture of the computer components used in the center and the water used by the power plants that generate the center's electricity, not just the water used for cooling the center itself.[2] **This artificially inflates estimates of water use.**

Impacts on ratepayers

Another common concern regarding data centers is the impact of their electricity use on other ratepayers in the form of higher bills. State policymakers can take steps to insulate ratepayers from this while reaping the rewards of data center construction and operation.

Electricity impacts are hard to estimate because nobody is sure how much data centers will need, and this depends on how many materialize. Data centers do consume a significant amount of electricity, but this does not mean that they bring higher rates for everyone else. When high-volume industrial customers partner with utilities on capacity expansion, **the result is often more energy at lower cost, not less**.

1 Spindler, Wesley, Luna Atamian Hahn-Petersen, and Sadaf Hosseini. "Circular Water Solutions Key to Sustainable Data Centres." World Economic Forum, November 7, 2024. https://www.weforum.org/stories/2024/11/circular-water-solutions-sustainable-data-centres/.

2 Yañez-Barnuevo, Miguel. "Data Centers and Water Consumption." Environmental and Energy Study Institute, June 25, 2025. https://www.eesi.org/articles/view/data-centers-and-water-consumption.

In addition, data centers — such as Modular Data Parks — can produce their own power, leaving other ratepayers out of the equation. To facilitate this, state governments should:

1. Legalize Consumer-Regulated Electricity (CRE): CRE allows data centers and other consumers to bring their own private utility entirely off-grid and minimizes red tape, skipping public utility regulation.[3] In New Hampshire, a one-page bill (H.B. 672) was signed into law in August to allow off-grid electricity providers.[4] Under CRE, data centers can move faster and ensure a reliable supply of electricity, while ratepayers and taxpayers are protected from rate increases for infrastructure development. State government doesn't need to pass out subsidies — it just needs to get out of the way.

2. Encourage innovative power sources: In Arizona, H.B. 2774 was proposed to allow data centers to place small modular reactors without a certificate of environmental compatibility.[5] Such reactors might be a good option for North Dakota.

Removing regulatory barriers

There are other actions state government ought to take to ensure that its residents benefit from this boom.

3. Enact "One Stop"/unified permitting: Streamline zoning and siting requirements for data centers at the state level, when possible. Keep a stable, predictable tax environment. Consider explicitly preventing retroactive moratoriums from local governments and fast-track review for land use disputes.

4. Continue to oppose generation-portfolio mandates that push intermittent, unreliable power: Build reliable, affordable natural gas generation. North Dakota only has a non-binding Renewable Portfolio Standard, with a low price for power, and it should stay that way.

The necessity and the opportunity

If the United States currently leads in high-end AI innovation, China excels at broad adoption — at integrating AI into the everyday workings of the economy and the state. China also seeks to use its cheap energy and disperse its hardware and software to other countries and control the AI supply chain, much in the way it has cut prices and dominated critical mineral supply chains in countries like Indonesia, the Democratic Republic of the Congo, and elsewhere. Because of this, China could win the competition for global market share — and the competition to use AI most effectively — even if its models never command the bleeding edge.

To win this race — and it must win it — the United States needs to advance from the cutting edge to mass application. With wise policy, that can happen in North Dakota. ★

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3 Advocates for Consumer Regulated Electricity. Accessed October 6, 2025. https://www.advocates4cre.org/.
4 "Bill Text: NH HB672 | 2025 | Regular Session | Amended | Legiscan." Legiscan. Accessed October 6, 2025. https://legiscan.com/NH/text/HB672/2025.
5 Bill Status Inquiry. Accessed October 6, 2025. https://apps.azleg.gov/BillStatus/BillOverview/83238.