FACT SHEET

Data Centers and North Dakota's Future

Frequently Asked Questions

The development of data centers raises significant questions about economic opportunity, electricity, water, and community well-being. This frequently asked questions (FAQ) document sets out the relevant evidence and considerations for North Dakota, based on research carried out by the Challey Institute at NDSU and other sources.

What interests developers in North Dakota?

North Dakota has access to energy resources, plenty of available land, and a cold climate that reduces cooling needs. Bakken natural gas could be used to generate electricity for data centers.

However, whether these advantages make a particular location appropriate depends on the infrastructure, workforce availability, and the cost of supplying reliable power.

Source: Robert L. Mayo. "North Dakota Natural Gas Can Power the Artificial Intelligence Revolution."

Are all data centers the same?

Facilities differ in their computing activities, size, cooling systems, and electricity supply. When it comes to assessing their impact on the community, a particularly useful point of distinction is whether or not the project makes use of the shared electricity grid, has its own power generation, or a combination.

Source: Diego Rivera Rivota, Leander Weigelt, Gaspar Simon Guevara, Douglas J. Arent, and David Sandalow. "The Effects of Load Growth on Electricity Prices in the United States: A Literature Review."

Will the operation of a data center lead to a higher electric bill?

There is no single answer that applies in all cases; although a large customer can spread the electricity system's costs over more sales, extra demand may still require costly infrastructure or strain available supply.

A 2026 paper by EPRI researchers found that data center growth reduced residential electric rates by about 6% between 2019 and 2024 compared with what they would have been without this growth. This represents an estimated historical impact, not a forecast that a forthcoming project in North Dakota will lower households' bills by 6 percent. The authors do, however, caution that future supply constraints might reverse this effect.

Source: Asa Watten, John Bistline, and Geoffrey Blanford. "Have Data Centers Raised Your Electric Bill? Causal Evidence from the United States."

What approach can communities take in order to determine who will be responsible for paying for electricity infrastructure?

The main issues are who will be responsible for the new costs and financial risk. What kind of upgrades will be needed? How much will the developer have to pay? And what will take place if the facility uses less electricity than expected or if it closes?

Research shows that rate structures and contractual arrangements that allocate costs to the customers who cause them can help safeguard other electricity users, since their effectiveness depends on the specific terms and how they are implemented.

Source: U.S. Department of Energy. "Cooling Water Efficiency Opportunities for Federal Data Centers."

What quantity of water is used by data centers?

The amount of water needed varies widely by cooling system type. Older evaporative cooling systems, typically used in hot climates, use a substantial amount of water. Newer closed loop water cooling systems use far less, and air cooling uses almost none.

Communities can ask for details about the complete cooling system, expected annual water consumption, peak demand, and water source.

Source: U.S. Department of Energy. "Cooling Water Efficiency Opportunities for Federal Data Centers."

Should nearby residents worry about the noise?

Noise depends on how close a facility is to homes and how quiet the surrounding area is. Cooling fans and other equipment operate around the clock, so their sound can be especially noticeable in rural areas with little background noise.

Measurements at homes a few hundred feet from facilities in Northern Virginia have been approximately 55–60 decibels, like a central air-conditioning condenser running in your yard. Sound decreases with distance, making appropriate siting and adequate separation from homes important ways to reduce noise impacts.

Source: Robert L. Mayo. "AI Data Centers: What North Dakota Needs to Know."

What economic advantages could a community obtain?

Data centers can bring private investment, construction jobs, permanent operating positions, local infrastructure improvements, and a larger tax base.

North Dakota also has an opportunity to use Bakken natural gas to generate electricity for these facilities. As oil wells mature, they produce more gas relative to oil. When gas cannot reach a market, oil production can be constrained. Data centers could provide an additional market for that gas, helping sustain oil production and its associated jobs and tax revenue.

Source: Robert L. Mayo. "AI Data Centers: What North Dakota Needs to Know."

What can we learn from the North Dakota projects currently in existence?

The experiences of Williston and Ellendale illustrate the importance of electricity arrangements, facility location, and community involvement. These examples help form questions when assessing future proposals.

Nevertheless, they should be regarded as case studies, not as evidence that all projects with similar characteristics will yield the same result. Furthermore, any comparisons must account for the facilities' individual characteristics.

Source: Robert L. Mayo. "AI Data Centers: What North Dakota Needs to Know."

What can residents ask before a project proceeds?

Start with four considerations: the power plan, cooling and water requirements, proximity to homes, and community engagement.

Using that framework, people can ask which commitments have been recorded, how performance will be assessed, who will handle problems, and what safeguards are in place if the project changes. These questions turn general promises into information communities can assess.

Source: Robert L. Mayo. "AI Data Centers: What North Dakota Needs to Know."