

### Introduction

While you may not have heard of AI data centers, one may be “just around the corner” for your community. The time to learn about this new type of ground-up development is now, before your community might be approached.

This Community Guide provides some background on AI data centers and questions to consider.

### What is a data center?

Traditional data centers have been around since the origin of the internet – broadly speaking, they are physical facilities which house critical operating infrastructure and data. To date, there are seven traditional data centers in Maine<sup>1</sup>. These data centers largely exist in the form of server rooms in office buildings dispersed across the state. Faster broadband connections have both pushed and been pushed by rising demand for expanded uses of the internet and necessitated the modernization of data centers<sup>23</sup>.

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<sup>1</sup> “Maine Data Centers”

<https://www.datacentermap.com/usa/maine/>

<sup>2</sup> “What is a data center?”

[https://www.ooma.com/blog/average-us-internet-speeds-over-time/?srsltid=AfmBOorku9KZvWO8N-K\\_Id0\\_W0RDhE7EpZ\\_bNtmWCQtiwRbaXgIK1d0P](https://www.ooma.com/blog/average-us-internet-speeds-over-time/?srsltid=AfmBOorku9KZvWO8N-K_Id0_W0RDhE7EpZ_bNtmWCQtiwRbaXgIK1d0P)

<sup>3</sup> “Average number of smart devices in a home 2025”

<https://www.consumeraffairs.com/homeowners/average-number-of-smart-devices-in-a-home.html>

Artificial intelligence (AI) data centers are the next iteration of that evolution – what does this mean for the data centers of the future?

### How are AI data centers different?

Traditional data centers and AI data centers are different in both form and function. Where traditional data centers exist to facilitate the flow of data from one place to another, AI data centers are built, outfitted, and maintained to process large amounts of data for AI and machine learning purposes (think: conversational AI tools like ChatGPT, image generation, etc.).

This distinction is at the core of the issue – AI and machine learning are exceptionally data-intensive and require heavy, specialized machinery, whereas traditional data centers rely on standard computing technology to get the job done<sup>4</sup>.

### Impact

The impact of these new AI data centers involves a range of unique considerations if your community is approached about a potential site. While there are currently no AI data centers in Maine, plenty are popping up around the country. Communities in Virginia, Wisconsin, Indiana,

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<sup>4</sup> “AI data center vs traditional data center – what is the difference?”

<https://www.rcrwireless.com/20250327/fundamentals/ai-data-center-difference>

Arizona, Oregon, Michigan, and Iowa, to name a few, are experiencing life with AI data centers. Here's what we know:

### Energy consumption

AI data centers rely on substantial energy consumption to perform the processing required to train their AI models relative to traditional data centers. Today, these facilities account for 1-2% of all electricity consumption globally, but research suggests that number could rise to 21% by 2030, factoring in the cost of delivering AI to consumers<sup>5</sup>.

This draw is a result of continuously powering the equipment used in AI data centers, which generates heat, and running the cooling systems that remove the heat. Cooling systems vary across facilities, but generally rely on some combination of water and electricity to evaporate ~80% of freshwater they consume<sup>6</sup>. These sites typically can use up to 300,000 gallons of freshwater a day<sup>7</sup>.

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<sup>5</sup> "AI has high data center energy costs — but there are solutions"  
<https://mitsloan.mit.edu/ideas-made-to-matter/ai-has-high-data-center-energy-costs-there-are-solutions>

<sup>6</sup> "Data Centers and Water Consumption"  
<https://www.eesi.org/articles/view/data-centers-and-water-consumption>

<sup>7</sup> "AI, data centers, and water"  
<https://www.brookings.edu/articles/ai-data-centers-and-water/>

### Environmental

The rise in energy demand has caused an abrupt increase in **energy production**, resulting in refiring some coal and gas powered power plants, undoing the collective strides made in sustainable technologies while driving the electricity bills up for everyone. Research suggests that power sector emissions could increase 30% compared to scenarios without data center growth, reaching 275 million metric tons of CO2 annually by 2030. That matches the entire annual carbon output of France.

Data centers hold a spot in the top 10 **water-consuming** industries, with the average large data center (~100,000 square feet) using the equivalent of 4200 individuals daily use - the impact of which is felt acutely at the regional and local levels.<sup>8</sup> Numerous accounts out of communities in which AI data centers are built report a lack of potable water, amongst other concerns.<sup>9</sup> As the climate changes, even states like Maine have experienced extreme drought conditions.

Agriculture as a sector of the economy is much more water-intensive; yet,

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<sup>8</sup> "AI's Challenging Waters"  
<https://cee.illinois.edu/news/AIs-Challenging-Waters>

<sup>9</sup> "I can't drink the water' - life next to a US data centre"  
<https://www.bbc.com/news/articles/cy8gy7lv448o>

agriculture serves a more fundamental need for people with this water use.

**Noise pollution** is also a concern and common complaint for those living near these facilities. The equipment necessary for the operation of data centers can generate 55-85 decibels (about the sound of a normal conversation at the lower end, and heavy traffic at the upper) continuously, impacting the health of people and wildlife nearby<sup>10</sup>.

**The challenge with assessing the implications of AI data centers on the environment is that, as of Fall 2025, there are no federal nor state regulations for AI, nor legal frameworks requiring tech companies to disclose their energy and water consumption**<sup>11</sup>. Outside of lawsuits, the public has very little way of knowing exactly how much these facilities consume<sup>12</sup>.

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<sup>10</sup>“Understanding the impact of data center noise pollution”

<https://www.techtarget.com/searchdatacenter/tip/Understanding-the-impact-of-data-center-noise-pollution>

<sup>11</sup> “Why the true water footprint of AI is so elusive”

<https://www.npr.org/2025/05/07/1249592906/energy-water-ai-climate-tech>

<sup>12</sup> “We now know how much water Google’s Oregon data centers use, after city drops lawsuit against journalists”

<https://www.datacenterdynamics.com/en/news/we-now-know-how-much-water-googles-oregon-data-centers-use-after-city-drops-lawsuit-against-journalists/>

### Economic Development

It’s tempting to see AI data centers as an economic development boon, but the complete picture is murkier. While the construction of these facilities can produce upwards of 1,000 jobs, once built, data centers generate relatively few long-term roles (100-200) when compared to similarly sized manufacturing facilities.

There can be significant economic advantages to a data center, as they can boost local tax revenue and increase demand for services like restaurants, hotels, and transportation; and, local suppliers and vendors may gain new business<sup>13</sup>.

These centers often represent some of the highest valuation in real estate in a municipality, generating substantial property tax revenue. While tax incentives and TIFs can be used to entice AI data center construction, judicious application of these incentives should be considered. [Good Jobs First](#) found that 15 data center sales and use exemption programs across the country “drained a small number of communities of almost \$1.5 billion” in revenue in 2023<sup>14</sup>.

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<sup>13</sup> “Do Data Centers Create Jobs”

<https://cc-techgroup.com/do-data-centers-create-jobs/>

<sup>14</sup> “Wasteful Film Subsidies and Data Center Giveaways are Draining Communities of Revenue”

<https://goodjobsfirst.org/wasteful-film-subsidies-and-data-center-giveaways-are-draining-communities-of-revenue/>

When it comes to economic impact, it is important to weigh employment considerations, local economy opportunities, and potential tax revenues against long-term fiscal stability<sup>15</sup>.

### Land Use

The sites in Maine that will be targets for AI data center development are most likely industrial/mill properties that have onsite, behind-the-meter power generation and access to freshwater sources. As investments in high-speed broadband networks come to fruition in even the most rural areas in Maine, the feasibility of retrofitting and revitalizing these sites with AI data centers is brought into reality.

According to recent news reports, two towns in Maine have been approached by developers with these projects in mind – Millinocket in 2021 and Wiscasset in 2025<sup>16,17</sup>. Both of these proposals have targeted sites with close proximity to freshwater sources and preexisting infrastructure to support onsite power generation.

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<sup>15</sup> “Zoning and Land Use Considerations for Data Centers”  
<https://www.lightboxre.com/insight/zoning-and-land-use-considerations-for-data-centers/>

<sup>16</sup> “Nautilus cancels flagship Maine data center”  
<https://www.datacenterdynamics.com/en/news/nautilus-cancels-flagship-maine-data-center/>

<sup>17</sup> “Large data center could come to Wiscasset”  
<https://www.pressherald.com/2025/09/23/large-data-center-could-come-to-wiscasset/>

While the extent of the risk to farmland is unknown in Maine, elsewhere in the country, data centers are consuming hundreds, if not thousands, of farmable acres. Amazon is creating data centers in states like Louisiana on 2,250 acres<sup>18</sup>. Meta has proposed a facility in Michigan that would convert 1,000 acres of farmland<sup>19</sup>. Beyond taking farmland out of production, these projects raise the price of surrounding farmland and impact continued farm use, especially for non-legacy farmers.

### Key questions to keep in mind

Local voices, perspectives, and priorities play a critical role in shaping important decisions about AI data centers. If your community is faced with a decision about an AI data center, these are some important questions to consider:

1. Where are the resources (electricity, water, etc.) used to power and cool AI data centers coming from?
  - a. How does this impact local utilities,

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<sup>18</sup> “At Amazon’s Biggest Data Center, Everything is Supersized for AI”  
<https://www.nytimes.com/2025/06/24/technology/amazon-ai-data-centers.html>

<sup>19</sup> “Massive Meta-backed data center proposal sparks debate in Livingston County over farmland, resources”  
<https://www.clickondetroit.com/news/local/2025/09/23/massive-meta-backed-data-center-proposal-sparks-debate-in-livingston-county-over-farmland-and-resources/>

## Information and Tools for Citizen Planners

- infrastructure, and access to arable land and clean water?
    - b. How will this increased demand affect my monthly electric bill?
  - 2. Could your community pursue a Community Benefits Agreement to mitigate negative impacts on
    - a. Public health
    - b. Cost of land for higher / other uses
    - c. And the issues raised above.
  - 3. Do the economic benefits offset the infrastructure and environmental costs associated with the construction and maintenance of data centers?

While AI data centers provide important infrastructure for today's modern world, it is important to assess and weigh the potential impacts and benefits to your community. Remember that it's in your region, community, or neighborhood that will bear the impact as these facilities are built.

Community wellbeing relative to these projects is dependent on a robust and transparent public process that persistently contextualizes what's at stake for the community as a whole.



"Data Center Alley" in Ashburn, Virginia - home to 133 AI data centers

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Attached is a community guide regarding AI Data Centers which is a companion piece to my oral testimony.