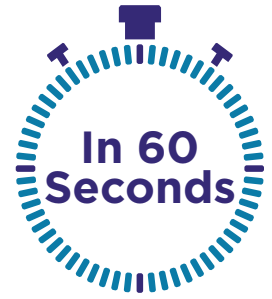


# IndependentWomen® Data Centers and the Environment



## What's at Stake

Data centers provide the energy required for the booming artificial intelligence community in the U.S. Though data center critics cite concerns about water, land use, and other environmental issues, data centers can use sustainable means to create energy.

Net-zero climate policies that push 100% renewable energy mandates contribute to energy insecurity and high prices. Increased electricity use, not only from technology but also from expansions in manufacturing and transportation (including electric vehicles), has raised fears about building new data centers because:

- Data centers require electricity for cooling and to [operate](#) IT equipment (servers, storage, and networking), which makes up about [60%](#) of a data center's electricity.
- AI data centers account for a mere [4%](#) of total current U.S. electricity consumption and will likely rise to between [6.7% and 12%](#) of total U.S. electricity consumption by 2028.
- People are concerned that more data centers will increase electricity prices and water consumption in the U.S.

## A Better Path Forward

Data centers consume water and land differently depending on their design, and data center innovators will mitigate environmental impacts by:

- Using energy sources like geothermal and nuclear, which are less energy-intensive but reliable, nearly 24/7.
- Implementing closed-loop-based cooling systems, which reduces reliance on freshwater
- Improving power usage effectiveness by dedicating more energy consumed to supporting the IT infrastructure.
- Relying on electricity supplied by natural gas ([40%](#)), wind and solar (24%), nuclear (20%), and coal (15%).
- Constructing small modular reactors (SMRs) since they “provide a source of baseload low-emissions electricity” and occupy a smaller land footprint.
- Embracing Bring Your Own Power (BYOP) efforts to lessen energy constraints from AI.
- Utilizing [consumer-regulated electricity \(CRE\)](#) to address immediate infrastructure challenges and insulate existing ratepayers from possible impacts from new, large-scale loads.

Through implementing these energy abundance policies, data center development can be done sustainably without harming the economy or environment. Furthermore, by adopting measures to grow our economy and ensure data centers receive sufficient energy, the U.S. can retain its position as the global artificial intelligence (AI) leader.

## Addressing Misperceptions

MISPERCEPTIONS	REALITY
<p><b>Data centers destroy the landscape across the U.S.</b></p>	<p>The locations of data centers are determined by grid interconnection, power demand, and transmission lines, so they are physically constrained to a few locations around the U.S.</p>
<p><b>The majority of end-use consumption comes from AI data centers.</b></p>	<p>AI accounts for only 4% of commercial electricity consumption, which makes up <b>36%</b> of total energy consumption.</p>
<p><b>All data centers consume energy and water the same way.</b></p>	<p>Hyperscale data centers, colocation data centers, and enterprise data centers differ in how much electricity, water resources, and space they use and occupy, and have different efficiency rates for each. For example, colocation centers are slightly less popular than hyperscale data centers but use only 5 to 50 MW of electricity.</p>

To learn more, read the [Policy Focus: Data Centers and the Environment](#).