



Data Centers and Michigan Utilities

MSU Institute for Public Policy
and Social Research

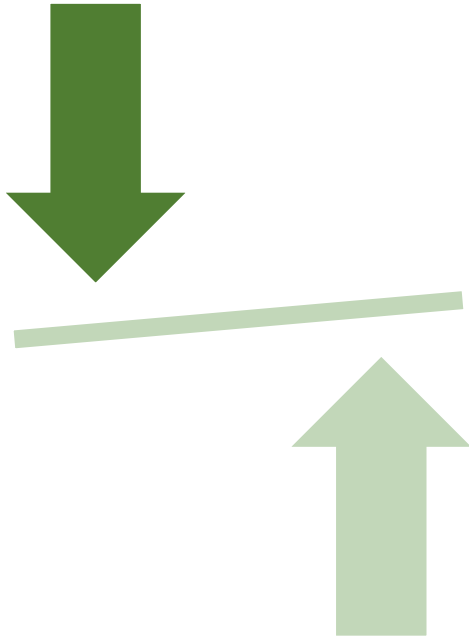
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Public Policy Forum



What effect will data centers have on Michigan utility prices?

Influencing factors



Policies and best practices

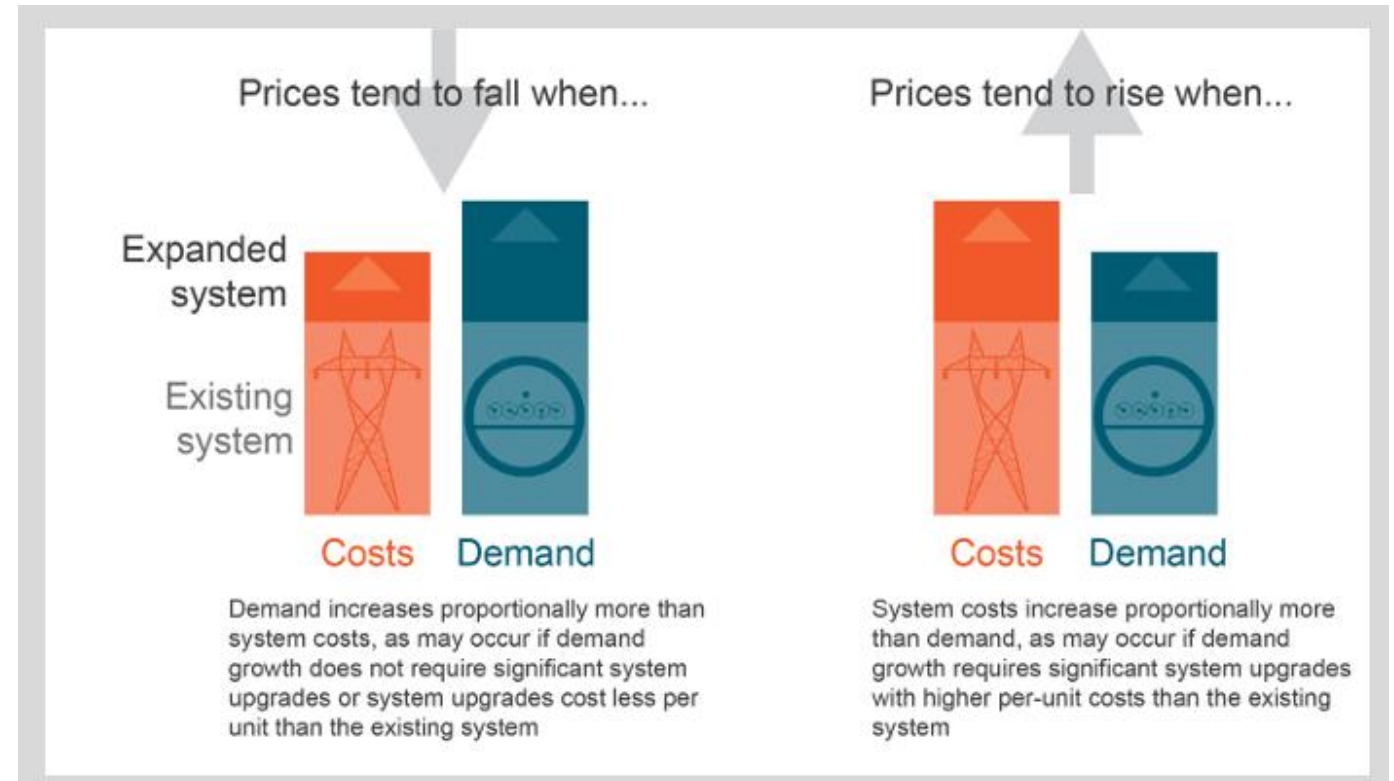


Load growth can increase OR decrease prices.

“Will data centers raise prices?”

It depends!

Direct and indirect pathways



Utility regulators use the principle of “cost causation” to assign costs to utility customers.



Customers that cause the utility to incur costs must pay for that.



Data center owners must pay for the costs they cause the utility.

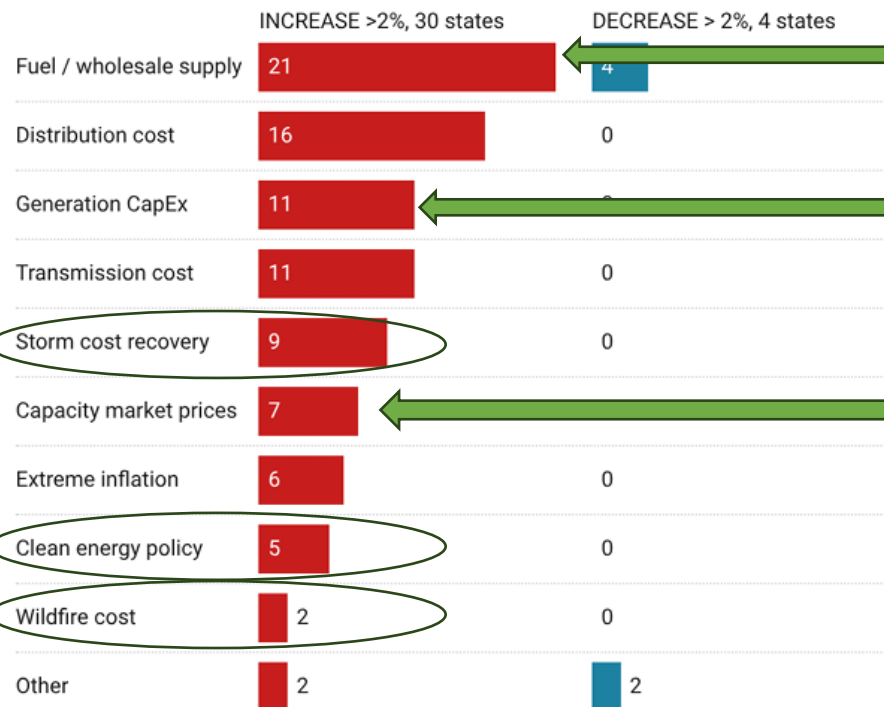
Direct cost – manageable by utility and regulator

Data center buildout may affect rates indirectly.

More demand → higher prices

Primary Drivers of Price Changes: 2024 to 2025

Stated reasons for price changes from 2024 to 2025 for those states with price increases or decreases of greater than 2%, after adjusting for inflation



Natural gas up 36%

Load growth
Supply chain constraints
Tariffs

High capacity prices (esp. PJM)

Climate change

Source: LBNL • Created with Datawrapper

The optimistic take: data centers could drive utility upgrades.



**Data centers need
consistent electricity**



**Willing to pay for infrastructure
improvements**

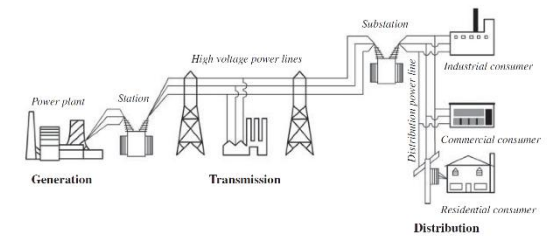


Figure 1-1 System overview.

**Spillover benefits to all
customers**

Michigan has policies that promote and constrain data centers' energy choices.



Incentives



**Clean and Renewable
Energy Standards**

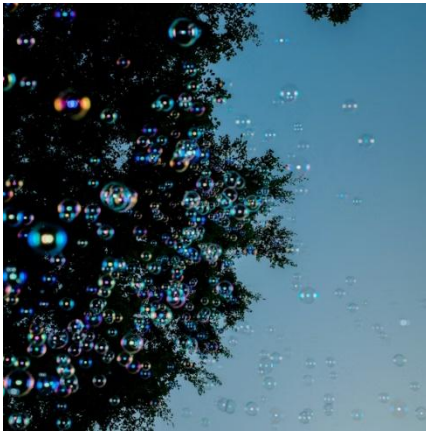


<https://www.whitehouse.gov/articles/2026/03/ratepayer-protection-pledge/>

MPSC and utilities are taking steps to protect consumers.

Should other customer classes subsidize AI infrastructure?

What happens if the AI bubble bursts?



Consumers Energy

- 100 MW or larger
- Minimum 15-year contract
- Billed for at least 80% of peak demand

DTE

- Case by case basis
- Contracts specify that infrastructure costs will be paid by data centers

Google's Project Cannoli and DTE signed a "clean capacity acceleration agreement."



1,600 MW of new solar capacity



400 MW battery storage



300 MW of other clean energy, demand response

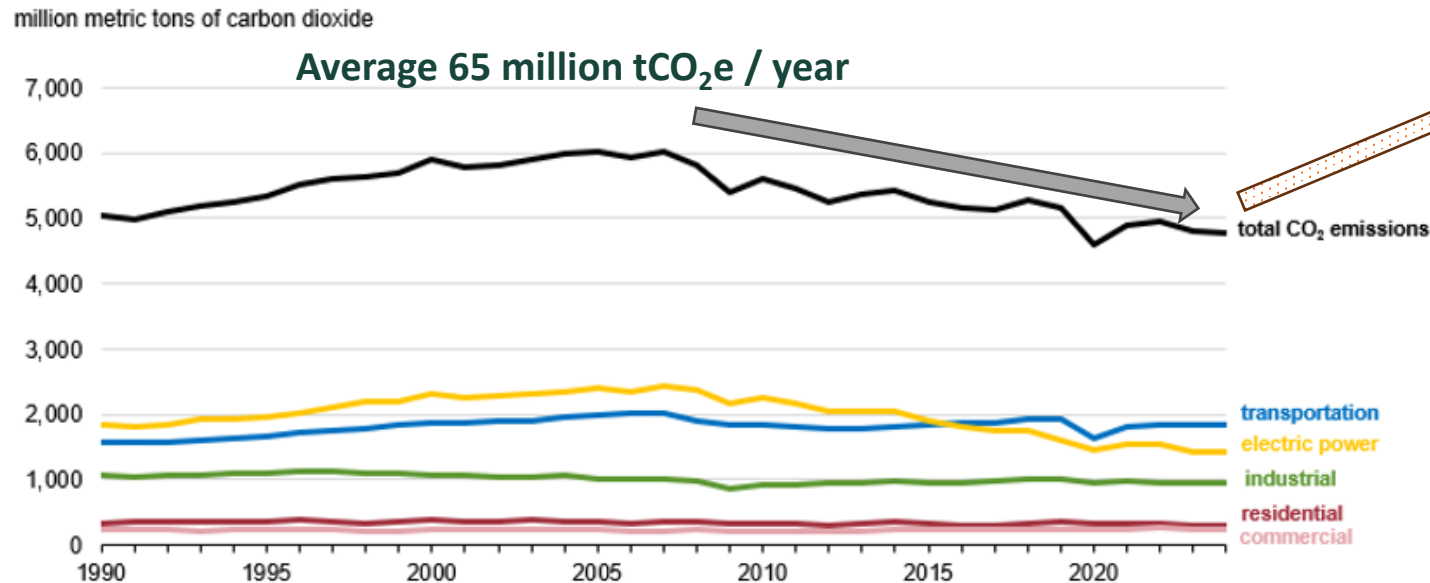


\$10 million for community benefits

<https://www.latitudemedia.com/news/in-michigan-google-is-funding-2-gw-of-clean-power-and-demand-response>

Emissions from data centers could reverse the decline in CO₂ emissions.

Figure 1. U.S. energy-related carbon dioxide emissions by sector, 1990–2024



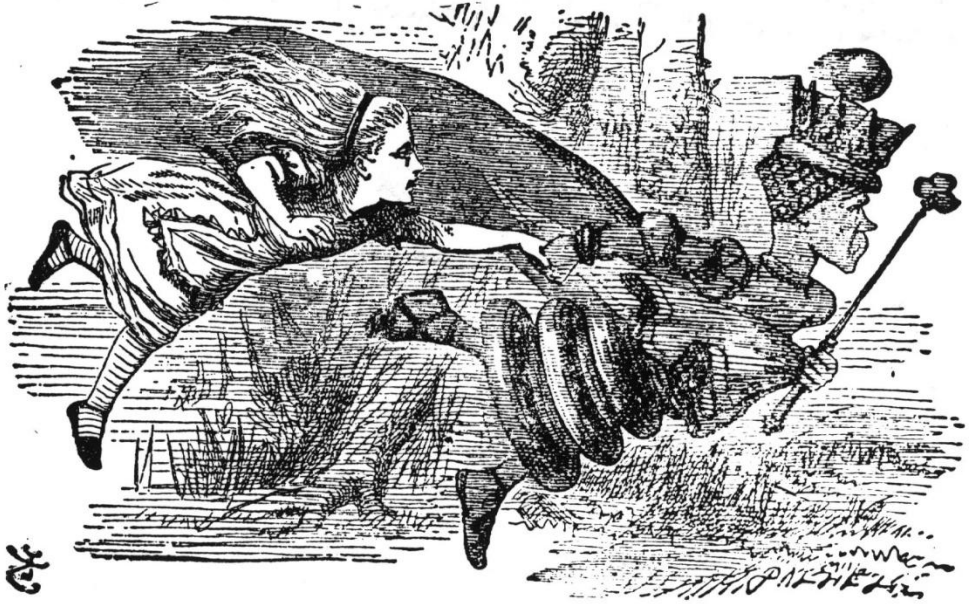
Data source: U.S. Energy Information Administration, *Monthly Energy Review*, March 2025, Tables 11.1–11.6

If the 430 TWh run on 90% natural gas...

Emissions from data centers
~ 129 million tCO₂e / year

Equivalent to adding 30 million cars

We have a “Red Queen” problem.



“Well, in *our* country,” said Alice, still panting a little, “you’d generally get to somewhere else—if you ran very fast for a long time, as we’ve been doing.”

“A slow sort of country!” said the Queen. “Now, *here*, you see, it takes all the running *you* can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!”

-Lewis Carroll, *Through the Looking Glass*

Data centers may affect utility rates in a number of ways, directly and indirectly.



Increasing influence

Costs rise faster than demand

Indirect effects

Abandoned infrastructure



Neutral influence

Data center owners pay
direct costs, assume risks



Decreasing influence

Costs rise slower than demand

Spread out fixed costs over more
kWhs

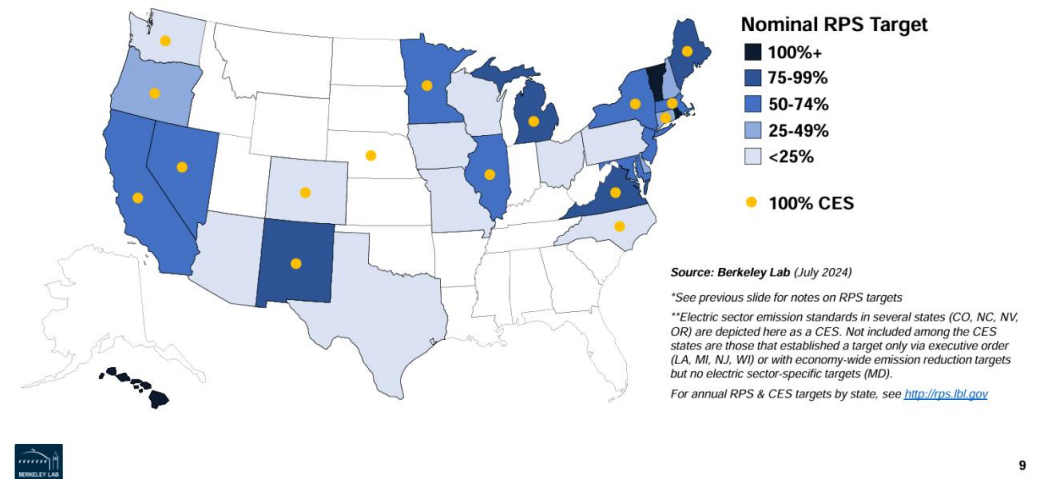
Spillover benefits of upgrades

Where is all that electricity coming from?



FERC Chair Laura Swett:
“90% of power for data centers
will come from natural gas.”

16 States Have Established a Broader 100% CES **
Typically in combination with an RPS



Data center owners have their own
commitments for RE



The Saline, Michigan hyperscale data center would cause as much carbon pollution as 1.58 million cars.



1,400 MW from local utility

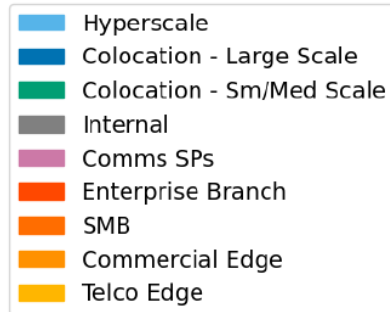


4.6 million - 6.7 million tCO₂e

Social Cost of Carbon (2026) = \$240/tCO₂e

Value of total climate damages = \$ 1.6 *billion* / year

The data center boom presents challenges and opportunities for Michigan communities and utilities.



Overview of data centers

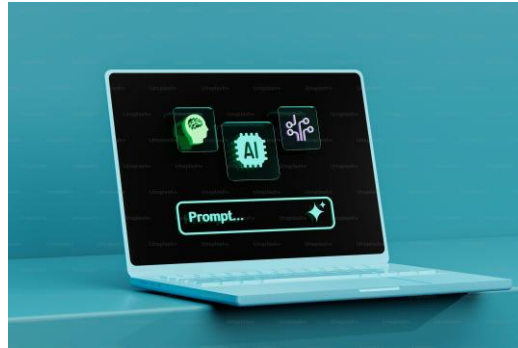
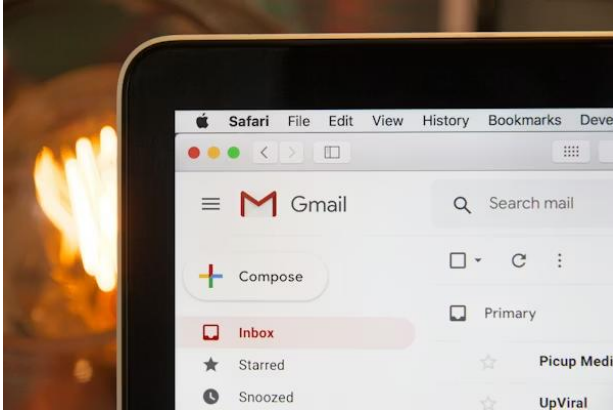


Energy and water use



Utilities and policies

Data centers house infrastructure for running computer programs that store and transmit digital information.

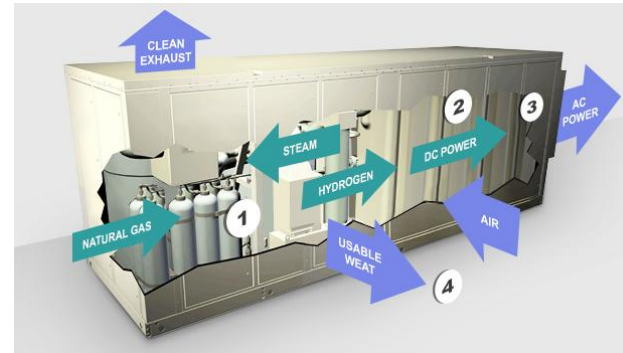


“Speed to power” is driving many energy decisions.

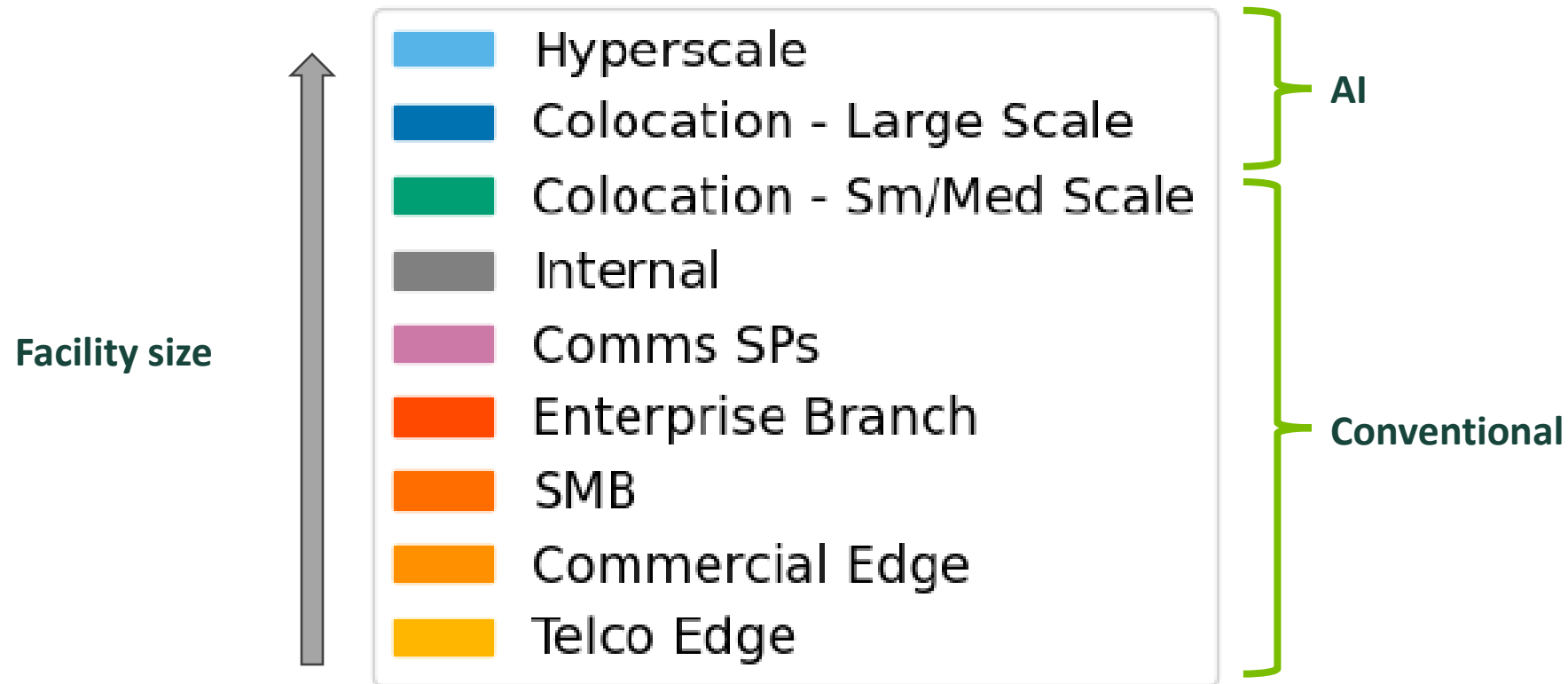
Connecting new generation sources to the grid can take years.



Some data centers may bring their own power.



Data centers come in a variety of types and facility sizes.



Data centers have shifted from conventional to hyperscale / AI facilities.

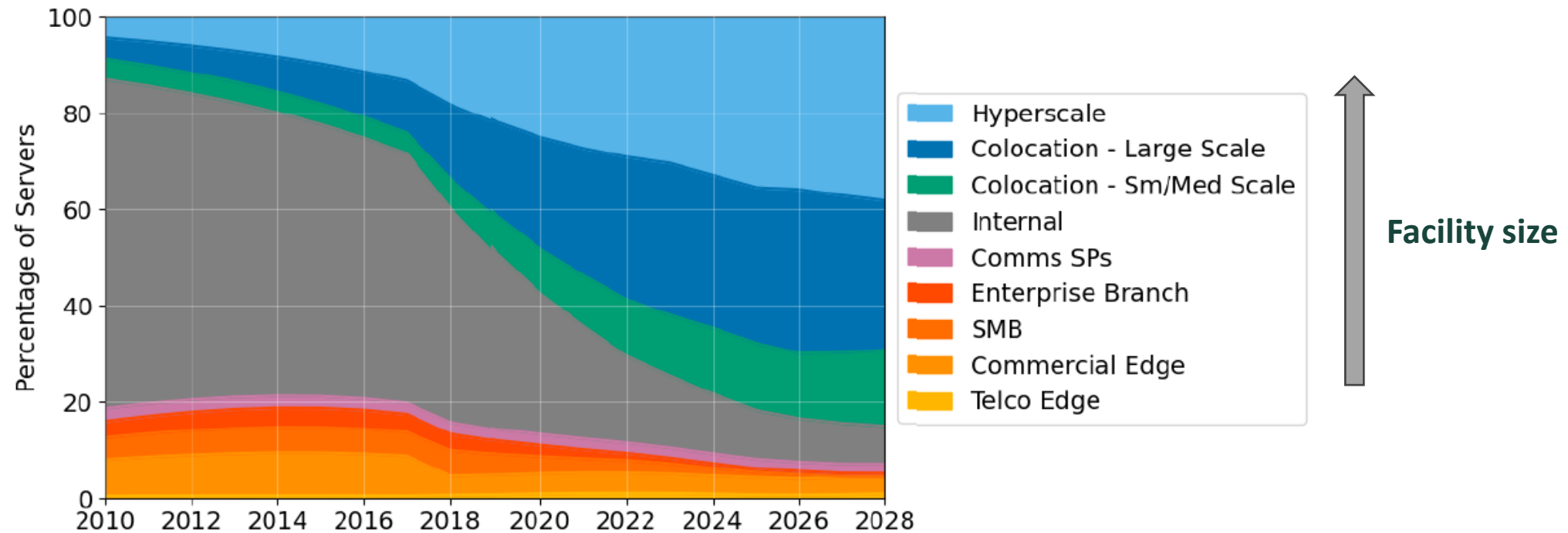
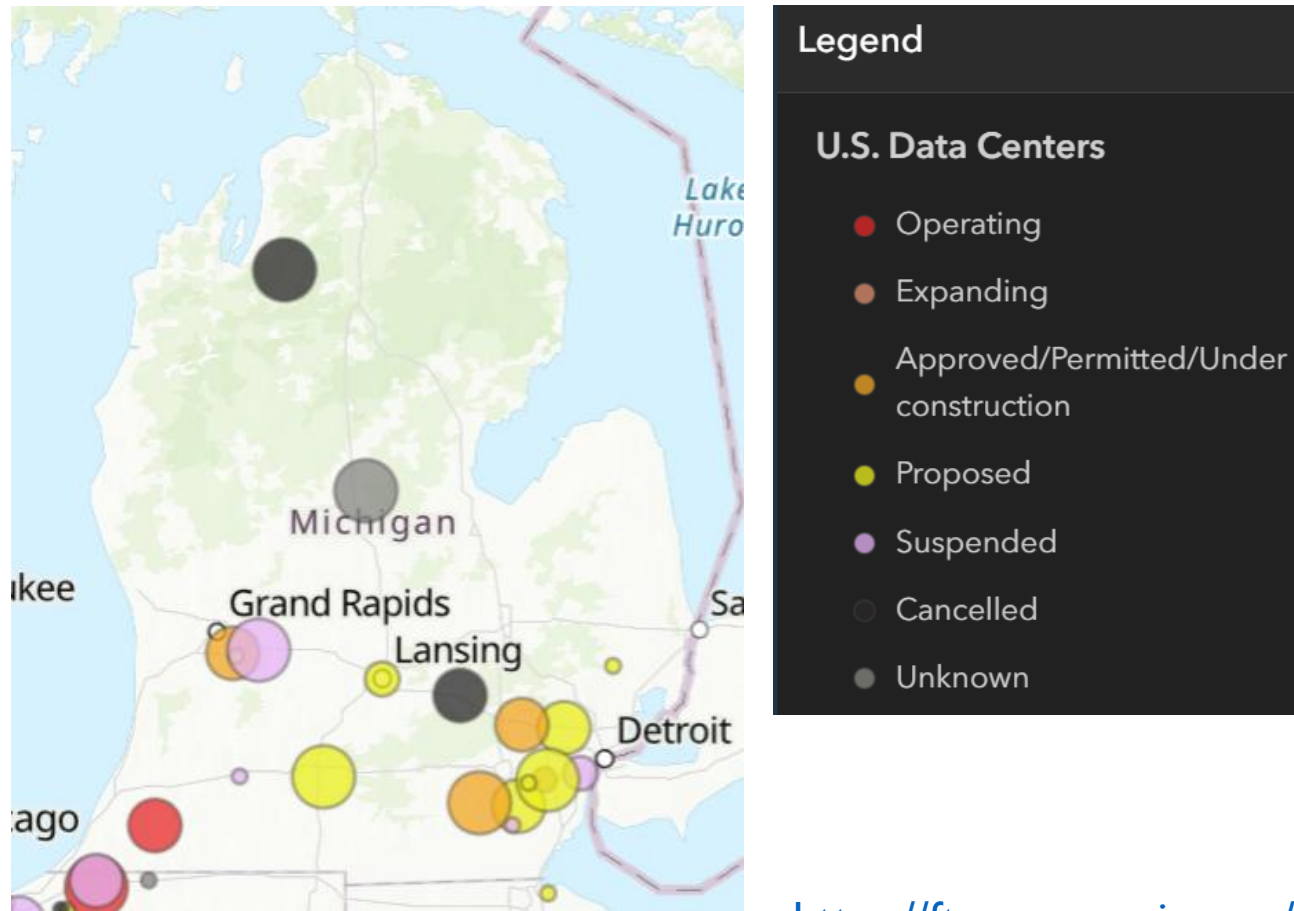


Figure 4.1. Distribution of servers by data center type.

**Michigan has more than 70, mostly small, data centers.
Several hyperscale facilities have been proposed.**



<https://ft.maps.arcgis.com/apps/instant/sidebar/index.html?appid=fdb7678fb2e345eb8b0a3a49971240c4>

Latest data center: “Project Cannoli”



DATA CENTERS

**Google, DTE plan 1
gigawatt Michigan data
center, eye Van Buren
Township site**

≡ Mi

1,000 MW

**Site zoned M-1 light
industrial**

**Still needs MPSC
approval**



Hyperscale data centers use enormous amounts of electricity.

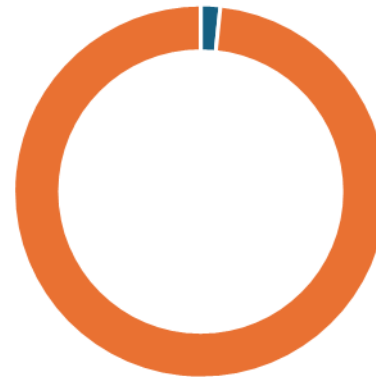


Proposed data center in Lansing, MI

24 MW

~20,000 homes

Small vs. Hyperscale Data Centers



■ Lansing ■ Saline



Proposed data center in Saline, MI

1,400 MW

~1.1 million homes

25% of Michigan's largest utility

Slightly less than Detroit's electricity consumption

Data centers could consume 12% of electricity in the US.

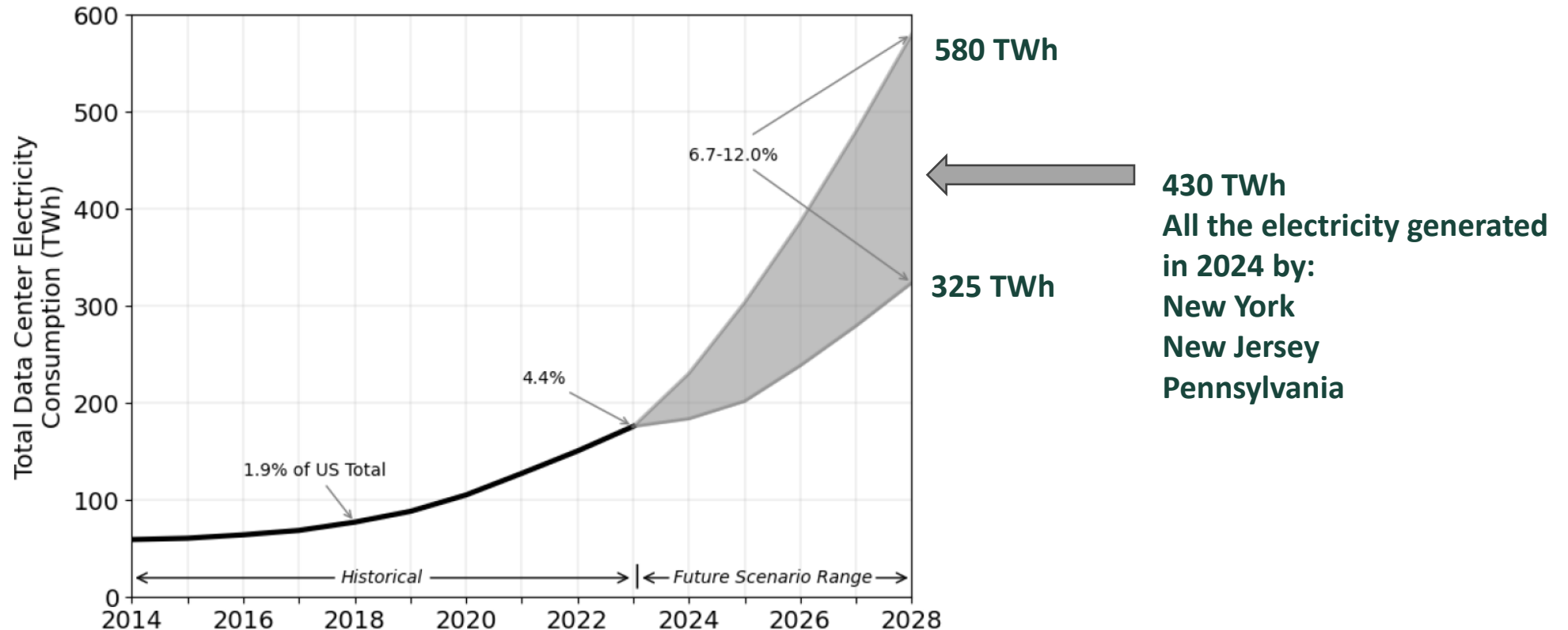


Figure 5.5. Total data center electricity use from 2014 through 2028.

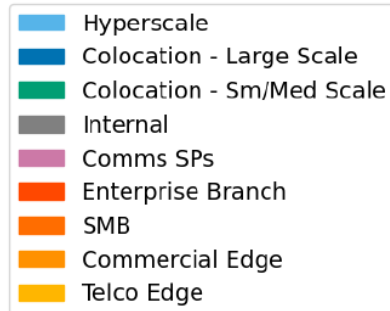
A new resource provides guidance for Michigan communities.

**WHAT MICHIGAN LOCAL
GOVERNMENTS SHOULD KNOW
ABOUT DATA CENTERS**



<https://graham.umich.edu/product/michigan-data-centers-guide>

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Overview of data centers



Energy and water use



Utilities and policies

Thank you!
Time of questions