A POLICY GUIDE TO

ERERGY CHOICE

IN MICHIGAN



POLICY PRIMER

Summary

You could be forgiven for thinking that having an "electricity choice market" in Michigan would mean you would be able to choose your electric utility or the pricing and service options that you prefer. That's what having a choice means when it comes to your internet, television and phone services. But, when it comes to electricity, Michigan residents do not get a real choice anymore.

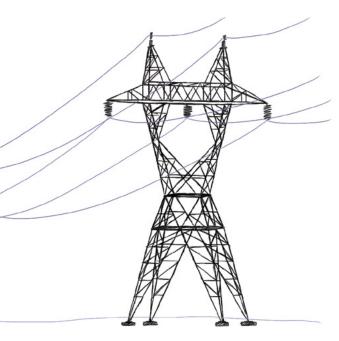
In 2000, a state law allowed all retail electricity customers to choose their energy supplier, beginning in January 2002. Ostensibly that meant that if customers were unhappy with the service or rates their utility provided, they could shop around for other options.

But, only a few years later, the state Legislature amended that law and took away your right to choose.

In 2008, legislators repealed access to choice and gave two regulated public utilities — DTE and Consumers Energy — a monopoly over 90% of the retail electricity market in the Lower Peninsula. The Upper Peninsula Power Company, or UPPCO, and Upper Michigan Energy Resources, or UMERC, currently have similar monopoly rights for the Upper Peninsula.^{2 3}

Today, only 10% of retail electricity customers in Michigan are legally allowed to choose their service provider. But since the 10% cap was quickly met, there is no choice allowed for 90% of Michigan's ratepayers or for anyone signing up for new electricity service today.⁴

But it's clear that Michigan residents want choice. Electric choice programs across the state are fully subscribed, with more than 5,700 customers enrolled and over 6,400 customers on the waiting list to join the program if an opening ever becomes available.⁵ State government estimates indicate that if the cap was removed, 25% of customers in Consumers Energy's operating area would opt for the choice program. About 18% would opt for choice in DTE's service area, 14% in UPPCO's service area and 17% in UMERC's service area, too.⁶



Continuing demand for electricity choice is due, at least in part, to Michigan's high electricity rates.

For more than a decade — beginning just two years after Michigan's 2008 decision to abandon full electricity choice — Michigan's rates have consistently exceeded both the U.S. average and the average rate paid by the other Great Lakes states for retail electricity. Today, Michigan's rates are 13% higher than the average rate paid by the other Great Lakes states and 16% higher than the national average.

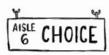
Michigan's 2020 average total retail electricity rate, which averages residential, commercial and industrial rates, was 12.37 cents per kilowatt hour. In comparison, Illinois' average 2020 rate was 9.56 cents per kWh. Indiana's was 9.75 cents, Ohio's 9.28 cents and Pennsylvania's was 9.69 cents. Minnesota and Wisconsin both have electricity rates closer to Michigan's at 10.84 and 11.22 cents per kWh, respectively. The national average was 10.66 cents per kWh in 2020.

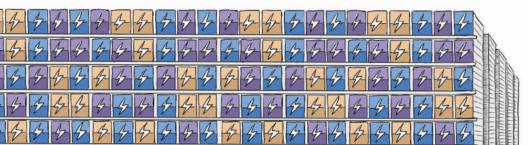
Unfortunately for ratepayers, Michigan's electricity rates are expected to continue increasing rapidly for the foreseeable future. Michigan's Public Service Commission, the state regulatory body responsible for overseeing and approving rates for regulated utilities, approved a

\$188 million rate increase for DTE in May 2020. In December 2020, the MPSC approved a \$100 million rate increase for Consumers Energy. On top of those rate increases, the MPSC has approved utility plans to spend multiple billions on transitioning the state to renewable energy sources and achieving net-zero greenhouse gas emissions by 2040 and 2050.

Opening up electricity markets in generation and transmission would inject competition into this sector, creating incentives for utilities and transmission operators to offer lower prices and better, or different, services to their customers. Other states have made use of competitive markets to help drive down electricity rates for customers, all while maintaining reliability and promoting new investment and innovation in energy infrastructure.

The Michigan Legislature should remove the 10% cap on Michigan's electricity choice markets and open up competition in both generation and the construction and maintenance of transmission lines. With Michigan's electricity rates continually higher than the national average and highest in the region, Michigan's monopoly-based, tightly regulated system appears to be failing at providing Michigan consumers with reasonable rates.







What is "Electricity Choice"?

In the summer of 2016, the Mackinac Center received an email that exemplifies the confusion Michigan residents often have about the term "electricity choice." The email said,

I have never understood anything about the "choice" question on electricity. What choice? I have lived in Michigan since 1996 and paid my electricity bill every month for the past 20 years. I've never had "choice." I get a bill and it's always Consumers Energy. I get that other people get Detroit Edison. But you don't get a "choice."

As the email indicates, electricity choice in Michigan does not mean the same thing as consumer choice in other markets. Michigan residents are not allowed to simply choose the company that provides their electricity. Instead, you apply to receive electric service from the monopoly utility in your area, they hook up your service, you receive a monthly bill, and if you want to keep the power on, you pay it. The end.

But there is more to the issue of choice in electricity.

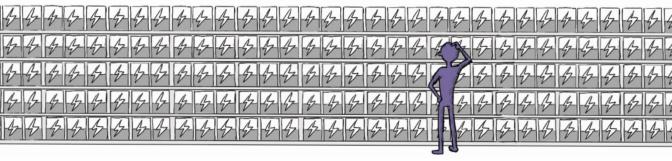
As described in "Electricity in Michigan: A Primer," the process of providing electricity for

residential, commercial and industrial customers is broken up into three phases.⁹

- 1. **Generation**: This is how electricity is created and primarily involves combusting coal or natural gas or splitting uranium atoms to make heat and steam that drives large turbines and generators. Electricity is also generated by capturing geothermal energy and energy from the sun, wind or stored water.
- Transmission: This is how electricity is transferred from where it is produced to where it can be made ready for distribution to "end users," namely homes and businesses.
- 3. **Distribution**: This is the process of transporting electricity directly to residential or commercial customers for their individual use.

In Michigan, electricity choice currently relates only to the generation and distribution phases. It is possible, however, to open up competition in transmission as well, by allowing companies to compete for the contracts to build and maintain





high-voltage transmission lines. A similar situation occurs when governments contract with private firms for the construction and maintenance of highways, roads and bridges.

When most Michigan residents and businesses sign up for electricity service the only choice they are legally allowed is between buying electricity from a single, regulated, monopoly utility company or having no electricity at all. Depending on where they live in the Lower Peninsula, most consumers will receive service from either DTE or Consumers Energy. In the Upper Peninsula, your utility service will be provided by the Upper Peninsula Power Company or Upper Michigan Energy Resources. ¹⁰ However, there was a short period in Michigan when customers were not so restricted in their options.

The Customer Choice and Electricity Reliability Act, Public Act 141 of 2000, granted access to electricity choice for Michigan residents starting Jan. 1, 2002. That meant utility customers were free to sign up to receive electricity services from an alternative electricity supplier. This is the same access to choice that consumers have when picking phone, internet or television providers.¹¹

Unfortunately, Public Act 286 of 2008 amended the 2000 law and closed off the vast majority of Michigan's electricity markets. This change guarantees 90% of the retail electricity distribution market to the monopoly utility companies: DTE, Consumers Energy, UPPCO and UMERC. That change meant alternative energy suppliers were now limited to providing no more than 10% of the retail electricity sold in the state.

The change did not coincide with a reduction in electricity rates in Michigan; in fact, just the opposite. Great Lakes states with choice markets have electricity rates that are, on average, about 23% lower than Michigan's largely regulated electricity market. The 10% cap on choice has the effect of limiting customer access to lower-priced electricity rates and provides little incentive for the monopoly utilities to make their rates competitively priced.

Instead, electricity customers in uncompetitive markets have their rates set by monopoly utilities. These rates must be approved by the Michigan Public Service Commission, the government agency in charge of the state's electricity regulations. But the MPSC continually approves higher than average rates, even though it is charged with "establish[ing] fair and reasonable rates for regulated services ... for Michigan's utility customers."

Customers in the choice market pay rates that are established through market competition and are, as a result, consistently lower than the rates used by the monopoly utilities. It's no wonder then that there is high demand for more market-based rates in Michigan.

The MPSC's 2021 report, "Status of Electric Competition in Michigan," shows that, in 2020, 5,700 Michigan businesses and public schools were enrolled in the choice market. But another 6,400 customers were on the waiting list to get these same rates. Plus, the report estimated that between 10% and 25% of electricity customers — depending on the service area — would opt for the electricity choice option if the cap was removed. Discussions with alternative electricity suppliers indicate that moving from the wait list to electricity choice is, at best, a hit or miss prospect. Customers must apply to be added to the wait list and then pause until another school or business closes or willingly chooses to give up the savings they enjoy as part of the choice program before a new customer can legally take part.

2008 to 2017 Michigan Outages Summary

Nearly
12.5 million

Total number of people affected by outages from 2008-2017

1,369
Total number of outages

10,937
Average number of people affected per outage

75,966 minutes

or

almost 53 days

Total duration of outages

4

National ranking for most outages

97 minutes

Average duration of outage

Source: Eaton Blackout Tracker: United States Annual Report 2018 (www.eaton.com/blackouttracker)

Frequently Asked Questions

Michigan law says I have a right to choose my electricity provider. So how do I choose?

You can't.

In Michigan, the right to choose is a right in name only. Only 10% of the electricity market is open to competition and that portion is fully subscribed. Customers must apply to be added to the wait list and rely on electricity service from one of the monopoly utilities until another school or business goes out of business or chooses to exit the choice program.

Why would I want to enter the choice market?

The main reason that customers have entered the choice program is that they are able to obtain electricity or other desired services at a lower cost, with service that is just as reliable as that provided by monopoly utilities. For example, the Michigan Schools Energy Cooperative reports that they provide competitive electricity service to more than "160 member districts and community colleges." Through 2016, they had helped Michigan school districts save over \$121.4 million by enrolling them in the electricity choice program.

To put the numbers in another, easily understood format, Ohioans have the option to choose their electricity provider and enjoy much lower electricity rates. If Michigan residents paid the same electricity rates as Ohioans, they could save about \$260 on their electricity bills each year, on

average — almost enough to cover one monthly car payment each year.

Are the monopoly utilities more expensive? Do customers really need a choice?

The electric rates and reliability reports suggest Michiganders pay more than they need to for electricity. Great Lakes states with electricity choice programs — Illinois, Ohio and Pennsylvania — paid an average total — residential, commercial and industrial — retail electricity rate of about 9.5 cents per kWh in 2020. In contrast, Michigan's mostly regulated electricity markets charge about 30% more — an average total retail rate of 12.4 cents per kWh.

At the same time, the most recent version of the Eaton Blackout Tracker report ranked Michigan as the fourth worst states for total electricity outages from 2008 to 2017.

There's no getting around the fact that Michigan's electricity system provides less reliable electricity at rates that are nearly one-third higher than the rates of neighboring Great Lakes states that allow for more market competition.

If monopoly utilities were offering Michigan residents competitive rates and more reliable service, customers would have no reason to switch. But the Michigan Public Service Commission reports that there's more customers on the waiting list for electricity choice rates than there are currently signed up. The MPSC

also reports that, depending on the service area, between 10% and 25% of electricity customers would sign up for the choice market if they were able to do so.

But a single, large, utility can provide services across a wide operating area more efficiently than smaller competing firms, can't they?

If monopoly utilities and their supporters actually believed this statement were true, they would immediately demand legislation that forced all but one of the state's existing monopoly utilities to cease operations.

This legislation could then grant the single remaining utility the legal right to serve all Michigan residents. But, which of Michigan's utilities actually possesses the courage of their convictions? Which utilities will volunteer to close their doors and cede their operating territories to one, single — ostensibly more efficient — utility?

It's clear that none of our monopoly utilities actually believe this to be true, and Michigan's experience over the past three decades demonstrates just the opposite.

When Michigan residents had access to electricity choice, the state's rates were lower than those in neighboring states around the Great Lakes. They were also lower than the national average. ¹² But since market competition was restricted, Michigan rates climbed above the pack, and now Michiganders pay more than their Midwestern neighbors and the national average.

In 1999, the year before Michigan passed the law that opened electricity services up to choice, the state's electricity rates were 7.2% higher than the national average and 7.9% higher than the other Great Lakes states.

In 2002, market competition was allowed. By 2005, Michigan's rates had dropped to 11.2% below the national average (an 18 percentage point swing) and to 8.5% below the Great Lakes states averages (a 16.5 percentage point swing).

But, in 2008, Michigan's Legislature repealed the broad electricity choice program and reregulated much of the electricity system, giving 90% of retail sales back to the monopoly utilities. Michigan's electricity rates immediately began to climb.

From 2008 to 2020, average total electricity prices for the total electricity industry in Michigan rose from 8.93 to 12.37 cents per kWh — a 39% increase. Over the same period, total electricity prices in the Great Lakes states only rose 15% and nationally rates increased by just 9%.¹³

In 2020, Michigan had the highest residential retail electricity rates among Great Lakes states. Our total electricity rates were 13% higher than all the other Great Lakes states, about 30% higher than Great Lakes states with electricity choice and 16% percent higher than the national average.

The evidence suggests that competitive pressures brought on by market choices in electricity generation and distribution from 2002 to 2008 forced utilities to offer their customers lower rates. But by imposing an arbitrary cap on the choice market, Michigan's Legislature hampered competition, increased costs and restricted customer options.

It is well past time to remove the cap on the choice markets and return choice to Michigan residents.

Won't a more deregulated system threaten the environment?

Making electricity providers compete and giving customers a choice does not interfere with regulations aimed at protecting the environment. Although the term "deregulated" is used to describe these energy markets, that term only applies to pricing of supply.

Both the federal and the state governments still have the authority to regulate electricity providers and to require that they limit their environmental impact.

Additionally, market pressures are a very effective means of pushing the private sector to offer customers clean energy options. Businesses may see purchasing lower emission generation options, such as natural gas and nuclear, as providing a competitive advantage over their peers. Many utilities across the country today base their marketing efforts on the notion that they are transitioning to green

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energy sources, like wind and solar. They do this because a portion of their customer base is demanding these options. Reintroducing market competition in electricity would promote diversity in the options customers can choose from.

Didn't a "deregulated market" cause the blackouts and instability in Texas in February 2020?

Texas provides a valuable example for any state that is considering transitioning their electricity system over to rely heavily on renewable energy technologies like wind and solar. It wasn't "deregulation" that caused Texas' grid instability — it was a mix of poor planning and preparation on the part of Texas regulators and utilities. That lack of planning ran headlong into an unusually period of cold weather, which was compounded by more than a decade of choices that caused the state to rely heavily on "reliably unreliable" renewable energy.

Texas has spent the past decade transitioning their electric grid away from coal and over to wind generation. In fact, federal government data indicates that, in 2020, wind overtook coal as Texas' second largest source of electricity. ¹⁴ At the same time as Texas has closed more than 6 GW of coal plants, they have built over 25 gigawatts of wind and five gigawatts of solar. ¹⁵

But Texas' choice to focus their spending on building wind and new related transmission lines, rather than maintaining reliable energy sources and preparing their grid to handle extreme weather is a primary reason the state suffered rolling blackouts during the extreme cold temperatures they faced in February 2021. As we noted in a USA Today article on the Texas blackouts, "Renewable's defenders retort that Texas' wind resource is 'reliably unreliable.' "16

But that simply means renewables can't be trusted when they are needed the most. And that is exactly the case in a growing number of situations: Texas' blackouts in February 2021, California's blackouts in the summers of 2019 and 2020, and Michigan's energy restrictions during the January 2019 Polar Vortex event.

During the extreme cold that impacted Michigan and much of the Midwest in January 2019, wind and solar generation resources produced only trace amounts of electricity, despite the fact that they were outfitted to run in cold weather. During the extreme cold, there was insufficient wind to drive the turbines and, at times wind generation dropped to less than 1% of the regions electricity supply. But even when the wind speeds increased, temperatures below -20°F forced much of the wind generation offline because operating it at those low temperatures could have damaged them.

In November 2019, a similar story was reported out of Washington state. Low winds speeds across the region meant that wind generation could not supply more than 2% of the Bonneville Power Administration's supply.

Whether wind turbines or solar panels are equipped to operate during extreme weather events doesn't matter if the wind stops blowing or the sun isn't shining.

Will electricity choice increase the risk of blackouts and other reliability issues?

There is no evidence that states using competitive markets to deliver electricity

experience more blackouts than states that tightly restrict competition.

In fact, despite having 90% of our electricity supplied by regulated monopoly utilities, the Eaton "Blackout Tracker: United States Annual Report 2018" ranked Michigan as the state with the fourth highest number of reported electricity outages between 2008 and 2017. That period was one in which Michigan relied almost completely on monopoly utilities to provide electricity.¹⁷

Relying on regulated electricity markets and monopoly utilities to provide electricity is no guarantee that customers will have reliable electricity.

Can market competition work in the transmission market too?

The argument that is typically advanced to limit competitive bidding for the construction, operation, and maintenance of high voltage transmission lines sounds something like, "Transmissions lines are a natural monopoly. Having a single company that must submit to government oversight is the most efficient means of operating a resilient and reliable electricity grid."

We described a "natural monopoly" in "Electricity in Michigan: A Primer."

The theory of natural monopoly...presumes that building competing electricity infrastructure would be too costly for a second electricity supplier to afford. The customer base and price of electricity supposedly are insufficient to recover the capital investment required to construct competing facilities. Consequently, the state bestowed regional monopoly status on select

utilities and imposed price controls and other regulations to temper their monopoly market power.

But that concept is only correctly applied if various companies all build separate, competing infrastructure. It is still possible to reduce costs and increase efficiencies by having companies compete for the right to work on part of the state's grid system. That is, more than one company can compete for the right to build portions of the grid that powers a state or region. This is the same sort of competition that occurs with construction firms competing for contracts to build highways or contracts to build public schools.

Additionally, ITC Holdings, the company that benefits from their monopoly status in Michigan, regularly takes part in competitive bidding processes in other states. ¹⁸ Their parent company, Fortis, Inc., builds, maintains and operates high-voltage transmission projects in Canada and Belize. ¹⁹ ITC and Fortis do not limit their business activities to a single natural monopoly operating area in the state of Michigan.

A Brattle Group report further indicates that the type of competitive bidding project that ITC and its parent company take part in in other jurisdictions has a beneficial effect on the overall price of new transmission line projects. Based on their findings from competitive bidding projects across North America, Brattle estimates expanding competitive bidding could save customers as much as 25% or \$8 billion over a five-year period.²⁰

The Data

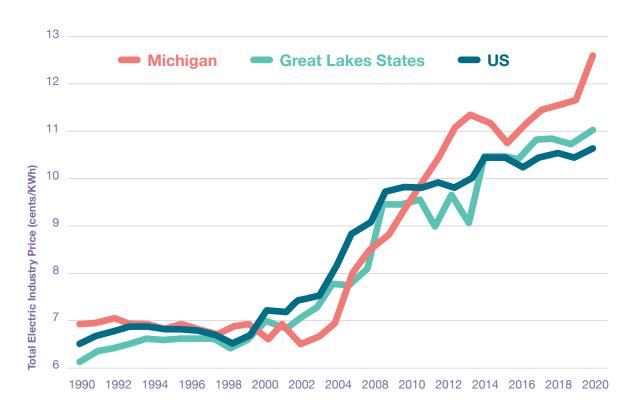
Michigan's public utilities have suggested that the only way to ensure reliable electric service is by giving them a monopoly. However, these utilities currently have a monopoly on 90% of their markets, and still the state is ranked by the Eaton Blackout Tracker as the fourth worst in the nation for power outages from 2008-2017.

Additionally, Michigan's Average Total Electric Industry Prices (an average of residential, commercial, and industrial prices shown in cents/kWh) shows a clear trend relative to the other Great Lakes states and the national average electric price. From 1990 to 2000, Michigan's average total electric price was higher than both the average price across all the Great Lakes states and across the nation.

But, in 2000, when Michigan announced market competition for electricity, its average rates began to drop relative to prices in the other Great Lakes states and the national average. By the time we fully implemented electric choice in 2002, our rates had dropped below the U.S. average, and almost matched rates in the adjacent Great Lakes states.

After 2008, when Michigan created its 90% monopoly for utilities, its average total electricity price climbed quickly back above the Great Lakes states and national averages and has remained there to today.

Average total electrical industry prices (cents/KWh)



Average total electrical industry prices (cents/KWh)

Electricity choice bill passes

Consumers begin choosing utility providers

Electricity choice revoked

Year	Residential	Commercial	Industrial	Michigan	Great Lakes States	% difference	National	% difference
1990	7.83	8.14	5.85	7.1	6.37	11.5%	6.57	8.1%
1991	8.06	8.19	5.89	7.21	6.55	10.1%	6.75	6.8%
1992	8.11	8.28	5.9	7.23	6.63	9.0%	6.82	6.0%
1993	8.16	8.02	5.34	7.14	6.76	5.6%	6.93	3.0%
1994	8.28	7.93	5.25	7.09	6.80	4.3%	6.91	2.6%
1995	8.34	7.86	5.13	7.05	6.79	3.8%	6.89	2.3%
1996	8.47	7.94	5.08	7.1	6.80	4.4%	6.86	3.5%
1997	8.57	7.84	4.97	7.04	6.80	3.5%	6.85	2.8%
1998	8.67	7.81	5.03	7.09	6.74	5.2%	6.74	5.2%
1999	8.73	7.85	5.03	7.12	6.60	7.9%	6.64	7.2%
2000	8.52	7.9	5.09	7.11	6.77	5.0%	6.81	4.4%
2001	8.26	7.54	5.08	6.97	7.16	-2.7%	7.29	-4.4%
2002	8.28	7.79	5.02	7.09	7.01	1.1%	7.20	-1.5%
2003	8.35	7.55	4.96	6.85	7.23	-5.3%	7.44	-7.9%
2004	8.33	7.57	4.92	6.94	7.43	-6.6%	7.61	-8.8%
2005	8.4	7.84	5.32	7.23	7.90	-8.5%	8.14	-11.2%
2006	9.77	8.51	6.05	8.14	7.91	2.9%	8.90	-8.5%
2007	10.21	8.77	6.47	8.53	8.26	3.3%	9.13	-6.6%
2008	10.75	9.17	6.73	8.93	9.52	-6.2%	9.74	-8.3%
2009	11.6	9.24	6.98	9.4	9.52	-1.3%	9.82	-4.3%
2010	12.46	9.81	7.08	9.88	9.65	2.4%	9.83	0.5%
2011	13.27	10.33	7.32	10.4	9.03	15.2%	9.90	5.1%
2012	14.13	10.93	7.62	10.98	9.71	13.1%	9.84	11.6%
2013	14.59	11.06	7.72	11.21	9.19	22.0%	10.07	11.3%
2014	14.46	10.87	7.68	11.03	10.38	6.3%	10.44	5.7%
2015	14.42	10.55	7.02	10.76	10.48	2.7%	10.41	3.4%
2016	15.22	10.64	6.91	11.05	10.40	6.3%	10.27	7.6%
2017	15.4	11	7.19	11.28	10.78	4.6%	10.48	7.6%
2018	15.45	11.15	7.1	11.4	10.82	5.4%	10.53	8.3%
2019	15.74	11.39	7.07	11.56	10.72	7.8%	10.54	9.7%
2020	16.39	11.77	7.49	12.37	10.95	13.0%	10.66	16.0%

Source: U.S. Energy Information Form EIA-861 "Average Price (Cents/kilowatthour) by State by Provider, 1990-2020"

Conclusion

Competition has been introduced in a wide range of other formerly regulated monopoly utility markets with high fixed costs, including cable television, telephone service, airline travel, natural gas production and freight shipments over railroads. Today, each of these markets is characterized by competition, and, for the most part, the absence of government price regulation.

If we applied Michigan's current approach to electricity requirements to other markets, the result would be a market-jarring and choice-limiting step back in time. In cable television, local cable firms would be guaranteed a 90% market share and customers wanting to switch to satellite TV or Internet streaming options would be placed on a waiting list until a spot opened up for them. AT&T landline service

would also have a 90% guaranteed share of customers, and those wanting to save money by switching to an alternative telephone provider would also be forced onto a waiting list.

Many of these market restrictions in these sectors have been lifted and the result is that more people have more choices over these services than they've ever had before. And the quality of these services continues to improve.

There's no reason why customers shouldn't be able to benefit from the same type of competition when it comes to electricity. It is time to return to the electricity regulation Michigan once used from 2000 to 2008, when Michigan customers had a real choice and electricity providers competing on price and service quality to benefit of ratepayers.

Endnotes

- 1 See: https://www.michigan.gov/mpsc/0,4639,7-159-16377_17111-42250--,00.html
- 2 Electricity in Michigan: A primer https://www.mackinac.org/archives/2021/s2020-03.pdf
- 3 Electricity in Michigan: A primer https://www.mackinac.org/archives/2021/s2020-03.pdf
- 4 https://www.michigancapitolconfidential.com/19614
- 5 https://www.michigan.gov/documents/mpsc/Status_of_Electric_Competition_Report_2020_-_Feb_1_2021_714883_7.pdf
- 6 See: https://www.michigan.gov/documents/mpsc/Status_of_Electric_Competition_Report_2020_-_Feb_1_2021_714883_7.pdf
- 7 The Great Lakes states include IL, IN, MI, MN, NY, OH, PA, WI. Also, see: https://www.eia.gov/electricity/data/browser/#/topic/7?agg=0,1&geo=g003v4&endsec=vg&freq=A&start=2001&end=2020&ctype=linechart<ype=pin&rtype=s&maptype=0&rse=0&pin=
- 8 https://www.mackinac.org/22842
- 9 https://www.mackinac.org/archives/2021/s2020-03.pdf
- 10 There are other electric providers, such as municipal systems and rural electric co-ops that provide electricity to limited localized areas. Also, the Indiana Michigan Power Company, a subsidiary of AEP, provides monopoly utility service in a small southwest portion of the lower peninsula. But, the vast majority of electricity customers in Michigan have their electric service provided by one of four monopoly utilities in the state of Michigan.
- 11 AES is the name the law gives to "a person selling electric generation service to retail customers."
- 12 Neighboring Great Lakes states include Illinois, Indiana, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin.
- 13 The "total electricity industry" includes rates for residential, commercial, and industrial customers. Source: https://www.eia.gov/electricity/data/state/
- 14 https://www.eia.gov/state/?sid=TX#tabs-4
- 15 https://www.eia.gov/todayinenergy/detail.php?id=34452
- 16 https://www.nytimes.com/2021/02/18/opinion/future-proof-texas-grid.html
- 17 https://switchon.eaton.com/blackout-tracker
- 18 https://www.itc-holdings.com/projects-and-initiatives/view-all
- 19 https://www.itc-holdings.com/itc/about-us
- 20 The Brattle Group. 2019. "Cost Savings Offered by Competition in Electric Transmission: Experience to Date and the Potential for Additional Customer Value." https://brattlefiles.blob.core.windows.net/files/15987_brattle_competitive_transmission_report_final_with_data_tables_04-09-2019.pdf





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