Synapse
Energy Economics, Inc.

Making Energy More Affordable in Michigan

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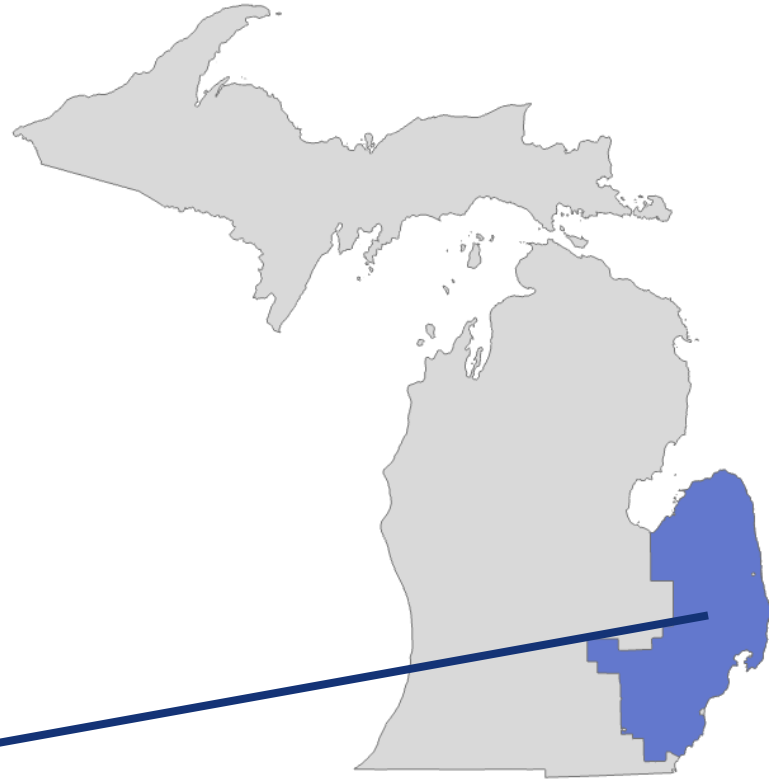
Energy is becoming increasingly expensive.

Policy solutions can provide savings.

We estimate that, as a result of policy solutions deployable in the next four years, residential electric customers in DTE's service territory could save $1.6 billion from 2027 to 2030.

These savings translate to $225 per year in 2030, per household.

Savings are modeled for the typical DTE customer, but similar savings from these policies are likely for other electric utilities.



Our analysis examines the impact of implementing these policy solutions in DTE's service territory:

- **Improve fairness of data center cost allocation** to ensure non-data center electric customers are not burdened by large load additions.
- **Correct utility return on equity** to ensure that customers are not being unreasonably charged for utility profits.
- **Expand initiatives and incentives for customer-owned power—**increased deployment of Virtual Power Plants (VPPs) can yield greater access to clean energy and community-oriented benefits.

Detailed results: Savings for DTE customers

Table 1. Annual residential electric bill savings (2024 $ per household)

	2027	2028	2029	2030	Four-Year Cumulative
Improve fairness of data center cost allocation	$99	$99	$99	$99	$398
Correct utility return on equity	$64	$64	$68	$71	$267
Expand initiatives and incentives for customer-owned power	$10	$23	$38	$54	$125
Total residential bill savings	**$173**	**$186**	**$206**	**$225**	**$790**

Table 2. Annual residential systemwide savings (2024 $ million)

	2027	2028	2029	2030	Four-Year Cumulative
Improve fairness of data center cost allocation	$206	$206	$206	$206	$823
Correct utility return on equity	$133	$133	$142	$146	$554
Expand initiatives and incentives for customer-owned power	$20	$47	$79	$112	$258
Total residential systemwide savings	**$358**	**$386**	**$426**	**$464**	**$1,634**

Assumptions:

- *All analysis focuses on residential customers in DTE's service territory.*
- *Systemwide savings are converted into residential electric bills generally by dividing the quantity of savings by the expected number of customers.*
- *Savings from data center cost allocation assume a comparison of a "worst-case" cost allocation versus a " best-case" cost allocation. These savings are based on a 1 GW data center; savings may be larger with larger data center installations.*
- *Savings from a reduction in utility return on equity could start in 2027, illustrating a hypothetical where policy interventions are made as soon as possible.*
- *Savings estimated from increased deployment of customer-owned energy are inclusive of avoided costs of energy, capacity, transmission, distribution and RPS compliance. All savings are gross; all customer-owned energy deployed for a cost lower than shown here will yield net benefits to consumers.*

Improve data center cost-allocation

Per-household savings: $99/year

New data centers pose cost allocation risks that could burden residential customers. Better cost allocation can save customers **$99 per year** in 2030, for even 1 GW of new data center load—translating to **$206 million** for all residential DTE customers by 2030.

- **Background:** Utilities in Michigan are currently examining different scenarios for allocating the costs associated with additional data center load across the customer classes. Recent projections released by Consumers Energy show a range of residential rate impacts depending on the cost allocation method used. Similar rate impacts may also apply to DTE customers. Best practices dictate that new data center customers should bear the cost of required upgrades to transmission and distribution infrastructure and should offset energy or capacity price impacts that their additional load may impose on other customers. Some states are also exploring requiring data center customers to bring their own new, clean energy, ensuring that new customers are not burdened by electric cost and public health impacts.
- **Methods:** We examined a range of residential rates projected by Consumers under six different scenarios in a March 2026 rate case filing. We observe that different proposals for allocating costs imposed by 1 GW of new data centers could impact consumer rates by as much as 7 percent. The allocation scenarios include creating new data center rate classes, charging data centers for expected generation costs, and direct assignment of incremental costs. When considering the least versus most cost-optimal rate structures provided by Consumers, we estimate residential customers could see impacts of $206 million in 2030 alone. This translates to $99 per year, per household. Impacts would likely be larger in futures when more than 1 GW of data center load is online by 2030.
- **Detailed results:** Table 1 summarizes the annual residential bill impacts for DTE. Because these rates could be effective in 2027, we estimate that this level of savings could be available from 2027 through 2030.

Table 3. Residential savings achievable by following the cost allocation method most favorable to residential customers (2024 $ per year)

	2030
Million $ savings for all residential customer	$206
Annual savings per household	$99

Data centers proposed for DTE's territory

As of March 2026, there is the potential for up to 7 to 8 GW of data centers slated for DTE's service territory, with 2.4 GW announced and likely online by 2030.

- Oracle 1.4 GW: online in 2027
- Google 1 GW: online in 2027/2028

Correct utility return on equity

Per-household savings: $71/year

Utility pre-tax ROEs impose costs of **$362 per year** on DTE customers in Michigan in 2026. Lowering post-tax ROEs by 1.7 percentage points could save all customers **$146 million** and typical customers **$71 per year** in 2030.

- **Background:** Utilities in Michigan earn a Return on Equity (ROE) for every dollar spent on utility infrastructure (for DTE, this is generation and distribution). Ratepayers also pay for the federal and state corporate taxes paid on utility earnings. An administrative law judge (ALJ) recently proposed an ROE 1.7 percentage points below Consumer's current ROE (9.9%). The ALJ's recommendation was based on a midpoint estimate of the returns of other regulated utilities (9.7%) and the returns of the riskier general market (6.7%). Thus, we model a 1.7 percentage point reduction in ROE of 8.2%. In March 2026, the MI PSC disagreed with the ALJ's interpretation of Supreme Court standards and approved a 9.9 percent ROE. We model this same proposed change for DTE in order to illustrate the potential savings for customers resulting from rightsizing DTE's ROE.
- **Methods:** For DTE, we examined the most recently MI PSC-approved rate base, equity ratio, and ROE to determine how much of a return all ratepayers currently pay, and how that return would decrease if ROE were lower. DTE rate base includes both production and distribution assets. We escalated revenue and rate base by the rate base growth rate between 2023 and 2026, as filed in the rate case. The ROE reduction policy reduces ROE immediately, to apply to 2027 and every year thereafter. In the policy case, we reduced incremental rate base growth in 2027 due to the lower ROE (Dunkel Werner, Jarvis 2025). We allocated savings based on revenue responsibility for the residential class. Savings are compared to the total bill.
- **Detailed results:** Table 1 summarizes the annual residential bill impacts for DTE.

Table 4. Residential savings achievable by reducing ROE by 1.7 percentage points in DTE (2024 $ per year)

	2027	2030
Million $ savings for all residential customers	$133	$146
Annual savings per household	$64	$71
% impact to annual bills	-4.5%	-4.9%

ROE rates nationwide

In Case No. U-21870, the Michigan ALJ provides a summary across 104 electric ROEs authorized from 2023-2026:

- Range: 8.63 to 11.45 percent
- Average: 9.68 percent
- Median: 9.70 percent

Expand initiatives and incentives for customer-owned power

Per-household savings: $54/year

Installing additional customer-owned power will produce benefits for all customers. Deploying more customer-owned power yields 2030 savings of **$54 per household**, or **$112 million** for all residential DTE customers.

- **Background:** In this analysis, we define customer-owned power to include the building blocks of Virtual Power Plants (VPPs): traditional energy efficiency measures, demand response, distributed solar, and distributed storage. Customer-owned power reduces the need for firm capacity, avoids investments in the transmission and distribution system, and reduces renewable portfolio standard compliance costs – which benefit all customers. Installing additional customer-owned power also reduces energy costs for participants.
- **Methods:** For each type of customer-owned power, we develop both a Business-as-usual (BAU) trajectory and an ambitious trajectory. We then calculate the difference between these two series for each year from 2027 through 2030, and we apply avoided energy costs to calculate utility system benefits resulting from more customer-owned power. We focus only on avoided costs that impact customer bills, including avoided energy, avoided capacity, and avoided transmission and distribution. Other avoided costs (such as those quantifying the impacts of avoided greenhouse gas emissions) are not part of this analysis. Annual average residential bill savings are calculated by dividing utility system avoided costs by the number of residential customers in DTE's service territory in 2024. See Appendix for more on methods.
- **Detailed results:** Table 5 shows detailed results for 2030. Cumulative four-year impacts total $258 million for all residential customers, or $125 per customer.

Table 5. Benefits of customer-owned power

	Residential savings in DTE, 2030			Utility system avoided costs (2024 $M)	Annual bill savings, average residential customer (2024 $)
	BAU	Ambitious	Incremental		
Energy efficiency	489 GWh	1,164 GWh	675 GWh	$51.4	$24.8
Demand response	417 MW	669 MW	251 MW	$26.0	$12.6
Distributed solar	132 MW	330 MW	198 MW	$27.0	$13.1
Distributed storage	50 MW	125 MW	75 MW	$7.3	$3.5
Total DERs				**$111.7**	**$54.0**

Appendix

Assumptions: Customer-owned power

Table 6. Customer-owned power trajectories

	BAU trajectory	Ambitious trajectory
Energy efficiency	Calculated using annual energy savings targets from DTE's Energy Waste Reduction Plan application (U-21681)	Based on maximum achievable potential for EE and DR in the *2025 EWR DR and Efficient Electrification Statewide Potential Study*, scaled to DTE's residential customer base.
Demand response	Based on DTE's 2022 IRP targets (U-21193)	Based on maximum achievable potential for EE and DR in the *2025 EWR DR and Efficient Electrification Statewide Potential Study*, scaled to DTE's residential customer base.
Distributed solar	Assume that the current number of distributed solar installations (about 0.5 percent of residential DTE customers) will double by 2030 to 1 percent of residential DTE customers. Installations are linearly interpolated from 2027 to 2030.	Assume that the current number of distributed solar installations quintuples by 2030 to 2.5 percent of residential DTE customers. Installations are linearly interpolated from 2027 to 2030.
Distributed storage	Assume that the number of households that have distributed storage is equivalent to half of the households with distributed solar (0.5 percent of residential DTE customers in 2030). Installations are linearly interpolated from 2027 to 2030.	Assume that the number of households that have distributed storage is equivalent to half of the households with distributed solar (2.5 percent of residential DTE customers in 2030). Installations are linearly interpolated from 2027 to 2030.

Table 7. Avoided cost sources

Avoided cost	Source
Electric energy	2025 Energy Waste Reduction and Demand Response Potential Study, MI EWR Appendix A
Electric capacity	
T&D	
Line losses	12 percent energy and 37 percent capacity, 2021 Marginal Line Loss Rate Calculation for Non-Wire s, Alternatives in U-21681
Energy and Capacity DRIPE	Not available for MI, assuming zero
RPS compliance	Calculate using REC prices and RPS target
Reliability	Calculate using LBNL ICE Calculator

Notes

- Through Case No. U-20898, Michigan is developing a benefit-cost analysis tool to model Michigan's jurisdiction-specific test for distributed energy resources (DERs). Because this tool is not yet available, we use avoided electric energy, capacity, and T&D costs provided in Michigan's 2025 Energy Waste Reduction and Demand Response Potential Study. We will also use those avoided costs to calculate savings for distributed generation and distributed storage resources. Avoided energy or capacity DRIPE is not available in this study or calculated elsewhere for DTE, so we do not include those savings in our analysis.
- We calculate avoided RPS compliance costs using REC prices and the MI RPS target (50 percent by 2030). We calculate value of lost load (VOLL) using the LBNL Interruption Cost Estimate Calculator.
- We assume that each storage installation is 5 kW with a 4-hour duration. We also assume 150 dispatches per year and a roundtrip efficiency of 85 percent.