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August 22, 2025

Ms. Lisa Felice
Executive Secretary
Michigan Public Service Commission
7109 W. Saginaw Highway
P.O. Box 30221
Lansing, MI 48909

Re: MPSC Case No. U-21860

Dear Ms. Felice:

Attached for electronic filing in the above-captioned matter, please find the Direct Testimony and Exhibits of Sophia Schuster, Laura Sherman & John Albers and the Direct Exhibit List of MEIU on behalf of the Michigan Energy Innovation Business Council, the Institute for Energy Innovation and Advanced Energy United, as well as a Proof of Service regarding same.

Thank you for your assistance in this matter.

Sincerely yours,

VARNUM

Justin K. Ooms

JKO/lml
Enclosures

c: All parties of record.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

*****

In the matter of the Application of **DTE Electric Company** for authority to raise its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority.	)))))))	**Case No. U-21860**

DIRECT TESTIMONY OF SOPHIA SCHUSTER

ON BEHALF OF

THE MICHIGAN ENERGY INNOVATION BUSINESS COUNCIL,

INSTITUTE FOR ENERGY INNOVATION,

AND

ADVANCED ENERGY UNITED

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I. INTRODUCTION AND QUALIFICATIONS

Q. State your name, business name and address.

A. My name is Sophia Schuster, and I am a Policy Principal with the Michigan Energy Innovation Business Council ("Michigan EIBC") and the Institute for Energy Innovation ("IEI"), located at 115 West Allegan Street, Suite 710, Lansing, Michigan 48933.

Q. On whose behalf are you appearing in this case?

A. I am appearing here as an expert witness on behalf of Michigan EIBC, IEI, and Advanced Energy United ("United"), collectively referred to as "MEIU."

Q. Summarize your educational background.

A. I have a Master's in Supply Chain Management and a Master's in Business Administration from the Pennsylvania State University, conferred in May 2023 and in May 2019, respectively. I also have a Bachelor of Arts degree from Albright College, conferred in May 2012.

Q. Summarize your experience in the field of electric utility regulation.

A. Since October 2023, I have served as a Policy Principal at Michigan EIBC and IEI. In this capacity, I have assisted in drafting comments in many non-adjudicated dockets before the Michigan Public Service Commission ("Commission" or "MPSC"). Also in this capacity, I have provided policy expertise, conducted research, and analyzed regulations related to advanced transportation and mobility. My work experience is set forth in detail in my resume, attached as Exhibit MEIU-1.1.

Q. Summarize your professional development coursework in the field of electric utility regulation.

A. I have completed the following coursework related to electric utility regulation:

- March 2024 - Electric vehicle ("EV") Charging Infrastructure (Electric Utility Consultants, Inc. ("EUCI"))
- March 2024 - Time of Use ("TOU") Rate Design: Advantages, Issues, and Challenges (EUCI)
- March 2025 - Accounting and Ratemaking (Michigan State University, Institute of Public Utilities)
- May 2025 - Basics of Electricity and Utility Systems Part 2 (EUCI)

Q. Have you supported the writing of testimony or comments in any other utility regulatory proceeding before this Commission?

A. Yes, I have previously supported the writing of testimony and comments in the following cases and utility regulatory proceedings:

- U-21534 (DTE Electric Company ["DTE Electric," "DTE," or the "Company"] general electric rate case);
- U-21585 (Consumers Energy Company ["Consumers Energy"] general electric rate case); and
- U-21492 (Transportation Electrification Plan filing requirements).

In addition to this work, I have been involved on behalf of Michigan EIBC in multiple workgroup proceedings at the Commission, including those focused on electric vehicle

("EV") deployment, benefit-cost analyses, Integrated Resource Plan ("IRP") requirements, and distribution system planning.

Q. Please summarize your experiences working with advanced energy companies and other key stakeholders on issues related to electric utility regulation.

A. I have served as a Policy Principal at Michigan EIBC and IEI since October 2023. In this role, I have led the organizations' transportation electrification work. I have led the development and publication of several pieces of transportation electrification research, including a roadmap highlighting key policy opportunities to enable the state's transportation electrification goals[1] and a report discussing the critical role of the automotive industry to the Michigan economy.[2] As described above, I have also participated in several workgroups at the Commission and supported the drafting of written comments in a number of non-adjudicated dockets. I also communicate formally and informally with Michigan EIBC member companies about each of these regulatory proceedings to understand how the advanced energy industry is affected. In addition, I participate in several coalitions focused on enabling the state's advanced mobility goals and facilitating a safe and equitable transition to EVs for Michigan's drivers and communities, including the Council on Future Mobility and Electrification's EV Action Team. In this capacity, I communicate formally and informally with coalition members about current regulatory proceedings and how each impacts any shared objectives.

[1] Michigan Energy Innovation Business Council and Clean Fuels Michigan, *Transportation Electrification in Michigan: A Roadmap to State Policy Actions*, October 2024, available at https://www.mieibc.org/wp-content/uploads/2024/10/Transportation-Electrification-in-Michigan.pdf.

[2] Michigan Energy Innovation Business Council, *Legacy, Innovation, and the Race Against China: The Automotive Industry and the Michigan Economy*, May 2025, available at https://www.mieibc.org/wp-content/uploads/2025/05/Auto-Leadership-and-the-Michigan-Economy_MIEIBC.pdf.

Q. What is the purpose of your testimony?

A. The purpose of my direct testimony is to express support for certain aspects of the Company's EV proposals as well as describe proposed modifications thereto based on my experiences in the transportation electrification policy space.

Q. Are you sponsoring any exhibits?

A. Yes, I am sponsoring the following exhibits:

- Exhibit MEIU-1.1: Résumé of Sophia Schuster, MBA, MSCM
- Exhibit MEIU-1.2: Discovery Response MEIUDE-1.6d
- Exhibit MEIU-1.3: Discovery Response MEIUDE-1.5a
- Exhibit MEUI-1.4: Discovery Response MEIUDE-1.6a
- Exhibit MEIU-1.5: Discovery Response MEIUDE-1.5b-01 Multi-Unit Dwelling ("MUD") Marketing Materials
- Exhibit MEIU-1.6: Discovery Response MEIUDE-1.6b-01 Fleet Marketing Materials
- Exhibit MEIU-1.7: Discovery Response MEIUDE-1.5c
- Exhibit MEIU-1.8: Discovery Response MEIUDE-1.5d
- Exhibit MEIU-1.9: Discovery Response MEIUDE-1.6e
- Exhibit MEIU-1.10: Discovery Response MEIUDE 1.3a
- Exhibit MEIU-1.11: Discovery Response MEIUDE 1.3d

II. TRANSPORTATION ELECTRIFICATION

A. OVERVIEW OF DTE'S TRANSPORTATION ELECTRIFICATION PLAN ("TEP")

Q. Please summarize DTE's transportation electrification proposals in this case.

A. DTE's proposals regarding transportation electrification are presented primarily in the direct testimony of Neil Foley.[3] The Company describes the latest forecast for EV adoption in its service territory and then details the status of its existing TEP program elements, approved in Case No. U-21534 (the Company's most recent general electric rate case). The major elements included in the TEP, by cost treatment, are:

- Regulatory Assets
  - Residential Customer Rebates to support charger deployment to low-income ("LI") customers living in single-family homes ("SFH");
  - Business Charger Rebates to support charger deployment to multi-unit dwelling properties, on-route DC fast chargers ("DCFC"), and public Level 2 ("L2") chargers;
  - Fleet Charger Rebates to support DCFC deployment for transit bus, school bus, and other fleet applications, as well as L2 fleet chargers; and
  - Emerging Technology Fund to enable funding for new, innovative pilots.
- Capital Expenses
  - TEP Information Technology Capabilities; and

[3] Direct Testimony of Neil Foley on behalf of DTE Electric Company ("Foley Direct"), Case No. 21860.

- Charging Hubs Pilot to provide EV charging for medium- and heavy-duty ("MHD") EVs in a single location, akin to a gas station.

- Operations and Maintenance
  - Education and Outreach ("E&O"), which includes maintenance of residential and business websites, in-person events, and Advisory Services; and
  - Program Administration to support and maintain the Company's EV team.[4]

The Company is proposing, in alignment with its TEP and the Commission's Order in the Company's most recent general electric rate case (Case No. U-21534) that it be authorized to defer $128.3 million as a Regulatory Asset from 2025-2028 to support its TEP rebate programs.[5] Witness Foley states:

> The Company further proposes to confirm that it can record rebates as a Regulatory Asset beyond the forward test year, but not beyond the Company TEP timeframe…[and that it] can reallocate funding between rebate programs as needed.[6]

Specifically, in this case, the Company proposes to reallocate $4.39 million from the non-disadvantaged communities ("DAC")/non-rural on-route DCFC program to the Public L2 program.[7, 8]

[4] Foley Direct, pp. 14–15.

[5] *Id.*, p. 16.

[6] *Id.*, p. 17.

[7] *Id.*, p. 19.

[8] *Id.*, p. 24.

B. EV ADOPTION FORECASTS

Q. How does DTE predict that EV sales will grow in the Company's service territory?

A. DTE's evaluation of current and forecasted EV adoption in its service territory is presented primarily in the direct testimony of Markus B. Leuker.[9] The Company reports that there are currently 60,000 EVs in its service territory, 80% of which are all-electric and 20% of which are plug-in hybrid EVs.[10] Of the 60,000 EVs in the Company's service territory, 17,400 were sold in 2023, and there was a 74% compound annual growth rate in EV sales between 2019 and 2023.[11]

To derive its near-term EV adoption forecast, the Company uses registration data provided by S&P Global to establish a linear trend based on the known EVs registered in the Company's service territory from 2020 through 2023. The Company assumes this linear trend is a reasonable indicator of near-term EV adoption in its service territory. However, because the linear trend does not take industry trends or policy shifts into account, it is not considered to be as reliable in the long-term. To forecast EV adoption in the long-term, the Company establishes a forecast model based on several projections from industry experts that yields a forecast of EV sales in Michigan.[12] To obtain a service-territory specific long-term forecast ("DTE Electric EV forecast"), this Michigan-wide long-term forecast is multiplied by an adoption factor based on the percentage of EVs sold in the Company's

[9] Direct Testimony of Markus B. Leuker on behalf of DTE Electric Company ("Leuker Direct"), Case No. 21860.

[10] *Id.*, pp. 21–22.

[11] *Ibid*.

[12] *Id.*, p. 22.

service territory, which year to date is 73%.[13] The final adoption forecast for each year is then generated by calculating a weighted average that includes both the near-term forecast of EV adoption, based on the Company's registration data and long-term DTE Electric EV forecast. For years in the near-term, the Company applies a larger weight to the linear trend model. For years in the long-term, the Company applies a larger weight to the DTE Electric EV forecast.[14] Based on these calculations, the Company forecasts that an estimated 334,000 EVs, including MHD vehicles will be registered in its service territory by 2029.[15]

Q. What is the current state of automotive sales in the U.S. and in Michigan?

A. In 2019, nearly 315,000 new light-duty EVs were sold throughout the United States, making up just 1.8% of total vehicle sales at the time.[16] Only five years later, new light-duty ("LD") EV sales reached 1.48 million nationwide, marking a 369.8% sales increase between 2019 and 2024 and bringing the number of total new EVs on the road to 6.4 million.[17] Today, there are nearly 7 million EVs on the road, with EV sales now accounting for almost 10% of automotive sales.[18] In Michigan, the market share for EV sales increased year-over-year from 4.4% in the second quarter of 2023 to 11.3% in 2025.[19] Equally

[13] *Id.*, pp. 21–22.

[14] *Id.*, p. 22.

[15] *Id.*, pp. 21–22.

[16] Atlas Public Policy, *EV Hub - EV Market Dashboard,* July 2025, Available at https://www.atlasevhub.com/market-data/ev-market-dashboard/.

[17] *Ibid.*

[18] *Ibid.*

[19] *Ibid.*

remarkable is the growth of the MHD market segment, which grew from about 1,400 new MHD EV purchases in 2021 to 124,000 in 2024 - an astounding 8,800% sales increase.[20] These trends across the country and in Michigan clearly indicate a steady and accelerating EV adoption growth rate.

Q. What impact could the current political and economic climate have on automotive sales and EV sales specifically?

A. Since the start of 2025, several federal actions have resulted in increased uncertainty across the automotive industry. These include:

- The introduction of a 25% tariff on some imported vehicles,[21] as well as tariffs on several components critical to vehicle manufacturing, such as steel, aluminum, copper, energy, and imported minerals;[22, 23, 24]

[20] *Ibid.*

[21] Cox Automotive, "Auto Industry Braces for Impact: 25% Tariffs on Imported Vehicles Set to Disrupt Market," March 2025, available at https://www.coxautoinc.com/market-insights/auto-industry-braces-for-impact-25-tariffs-on-imported-vehicles-set-to-disrupt-market/.

[22] Brinley, S., S&P Global, "How Tariffs are Affecting the Automotive Industry," April 2025, available at https://www.spglobal.com/automotive-insights/en/rapid-impact-analysis/us-auto-tariffs-impact-on-auto-industry.

[23] *MotorTrend*, "How Are Trump's Tariffs Impacting Cars, Costs, and Customers? Japan Gets a Huge Break," July 2025, available at https://www.motortrend.com/news/trump-tariffs-trade-war-automotive-industry-impact-developments.

[24] Carpenter, J., "Carpenter: Return of Trump tariffs could impact state's innovative industries," *The Detroit News.*, February 2025, available at https://www.detroitnews.com/story/opinion/2025/02/12/carpenter-return-of-trump-tariffscould-impact-states-innovative-industries/78422652007/.

- The repeal of the several tax credits which were part of the Inflation Reduction Act, including the 30C Alternative Fuel Vehicle Refueling Property Credit and the 30D Clean Vehicle Credit;[25, 26]
- The nullification under the Congressional Review Act of EPA Clean Air Act preemption waivers for California's Advanced Clean Cars II;[27, 28] and
- The elimination of civil penalties for automakers failing to meet Corporate Average Fuel Economy (CAFE) standards.[29]

Q. Has the Company's EV deployment forecast shifted in response to these near-term policy changes?

A. Neither the impact of the tariffs enacted in April 2025, nor any potential retaliatory tariffs, are included in the Company's forecast.[30] While both may have an impact on production at automotive manufacturing plants and on the growth rate of EV deployment across DTE's service territory, the Company assumes that the impact will largely be felt in the near-term

[25] Evergreen Action, "Republican Megabill Is a Disaster for Energy Costs, Jobs, and Clean Energy," June 2025, available at https://www.evergreenaction.com/blog/senate-gops-updated-megabill-is-still-a-disaster-for-affordability-jobs-and-clean-energy.

[26] *The Business Times*, "Tesla braces for rough quarters ahead as US ends EV incentives," July 2025, available at https://www.businesstimes.com.sg/companies-markets/transport-logistics/tesla-braces-rough-quarters-ahead-us-ends-ev-incentives.

[27] Brinley, St., S&P Global, "California's Advanced Clean Cars II ZEV rules under fire," May 2025, available at https://www.spglobal.com/automotive-insights/en/blogs/2025/05/california-advanced-clean-cars-zev-rules.

[28] Manescu, L., Sierra Club, "Donald Trump Signs Reversal of State Clean Car Standards, Selling Out Americans to Polluters and Unraveling Clean Air Act Protections," June 2025, available at https://www.sierraclub.org/press-releases/2025/06/donald-trump-signs-reversal-state-clean-car-standards-selling-out-americans.

[29] Sidley, "Congress Eliminates Corporate Average Fuel Economy (CAFE) Penalties for Passenger Cars and Light Trucks," July 2025, available at https://environmentalenergybrief.sidley.com/2025/07/08/congress-eliminates-corporate-average-fuel-economy-cafe-penalties-for-passenger-cars-and-light-trucks/.

[30] Leuker Direct, p. 26.

and that automotive manufacturing production levels will be similar to 2024 through 2026.[31]

Q. Do you agree with the EV deployment rate predicted by the Company and its response to current political and economic conditions?

A. Yes. While there may be a slowdown in EV adoption and automotive manufacturing in the short term, experts agree that EVs represent the future of the industry – both in the United

[31] *Ibid.*

States and globally.[32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43] Global trends clearly indicate stable EV adoption growth, particularly in European, Southeast Asian, and South American

[32] Hertzke, P. et al., McKinsey & Company, "New twists in the electric-vehicle transition: A consumer perspective," April 2025, available at https://www.mckinsey.com/features/mckinsey-center-for-future-mobility/our-insights/new-twists-in-the-electric-vehicle-transition-a-consumer-perspective.

[33] Andreoni, M., "The Electric Vehicle Future Is Coming. Just a Little More Slowly," *The New York Times*, September 2024, available at https://www.nytimes.com/2024/09/05/climate/electric-vehicle-sales-projections.html.

[34] Ewing, J., "Trump Will Slow, but May Not Stop, the Rise of Electric Vehicles," *The New York Times*, August 2025, available at https://www.nytimes.com/2025/08/03/business/trump-electric-vehicles.html.

[35] International Energy Agency, *Global EV Outlook 2024: Trends in electric cars*, March 2025, available at https://www.iea.org/reports/global-ev-outlook-2024/trends-in-electric-cars.

[36] Domonoske, C., "Trump's pulling a U-turn on EVs, but not much has changed — yet," *NPR*, January 2025, available at https://www.npr.org/2025/01/30/nx-s1-5272749/donald-trump-ev-electric-vehicles-subsidies-auto-industry.

[37] Gross, P., "EV Industry will Persist, Experts Say, Despite Trump Cuts," *Missoula Current*, March 2025, available at https://missoulacurrent.com/ev-industry-trump/.

[38] Rivers, S., "Jim Farley: 'If We Lose This, We Do Not Have A Future Ford'," *CarScoops*, July 2025, available at https://www.carscoops.com/2025/07/jim-farley-if-we-lose-this-we-do-not-have-a-future-ford/.

[39] Marshall, A., "Ford Is Sticking With an EV Future—With a Boost From Tesla," *Wired*, March 2025, available at https://www.wired.com/story/ford-ev-charging-adapters-for-tesla-superchargers/.

[40] Jain, S., "Tesla Is Still Selling Glossy Future - GM Just Shipped 111% More EVs," *Yahoo! Finance*, July 2025, available at https://finance.yahoo.com/news/tesla-still-selling-glossy-future-150621575.html.

[41] Bassett, A., "Why GM's CEO is still betting on electric vehicles (and racing)," *The Verge*, July 2025, available at https://www.theverge.com/gm-general-motors/705320/gm-ceo-mary-barra-interview-ev-cadillac-dei-trump.

[42] Chang, J., "Are EVs the Future of GM?," *Wall Street Journal Podcasts, Tech News Briefing*, June 2025, available at https://www.wsj.com/podcasts/tech-news-briefing/are-evs-the-future-of-gm/4cbe61e3-9159-4d49-9c18-bfe2ba9de618?gaa_at=eafs&gaa_n=ASWzDAjvEtVc0hn7qrtdnskv85q_nER8swRg2lVr4MCIaX4jYVWUfzbPRbGHsS4x8Kk%3D&gaa_ts=6887614a&gaa_sig=jSxbs5i7GCMo2lLLHosoQ3ToE4ze447F7ZR5f04QUnNGkSz2tMtm86lOAfPzoOlusdsI24KrW8d3OIkvW-Tw-w%3D%3D.

[43] Reuss, M., "From Tennessee to Michigan, GM is building a battery-powered future," *GM News*, July 2025, available at https://news.gm.com/home.detail.html/Pages/topic/us/en/2025/jul/0714-Tennessee-Michigan-battery-powered-future.html.

markets.[44, 45] To compete with a burgeoning Chinese EV industry, American automakers will need to continue producing EVs to remain globally competitive.[46] In addition to automakers' motivation to invest in EV development and production, EVs' improving

[44] International Energy Agency, *Global EV Outlook 2024: Trends in electric cars*, March 2025, available at https://www.iea.org/reports/global-ev-outlook-2024/trends-in-electric-cars.

[45] Chang, A. and Bradsher, K., "How China Became the World's Largest Car Exporter," *The New York Times*, November 2024, available at https://www.nytimes.com/interactive/2024/11/29/business/china-cars-sales-exports.html.

[46] Reuters, "China's electric vehicles are around 3-5 years ahead, BYD CEO says," February 2025, available at https://www.reuters.com/business/autos-transportation/chinas-electric-vehicles-are-around-3-5-years-ahead-byd-ceo-says-2025-02-18/.

range[47, 48, 49, 50] and price competitiveness,[51, 52, 53, 54, 55, 56, 57] the growth of the used EV market,[58] and supportive state actions[59, 60, 61] will enable continued EV adoption growth through this period of political and economic uncertainty at the federal level.

[47] Elliott, D., World Economic Forum, "5 developments that could make owning an EV more convenient," October 2024, available at https://www.weforum.org/stories/2024/10/electric-vehicles-batteries-charging/.

[48] Shakir, U., "Heat pumps in EVs are making a big difference in cold-weather driving," *The Verge*, January 2025, available at https://www.theverge.com/2025/1/23/24350602/electric-vehicle-heat-pump-better-range-tesla-etron-mustang-mach-e.

[49] Kothari, S., "Even Affordable EVs Are Getting Solid-State Batteries Now," *Inside EVs*, July 2025, available at https://insideevs.com/news/766509/affordable-ev-solid-state-battery-mg4-china/.

[50] Ghoshal, A., "BMW promises 30% longer range in upcoming EVs with custom batteries," *New Atlas*, March 2025, available at https://newatlas.com/automotive/bmw-longer-range-neue-klasse-ev-batteries/.

[51] Foote, B., "Ford CEO Jim Farley Says Next Gen EVs Will Be Cheaper Than Current Lineup," *Ford Authority*, June 2025, available at https://fordauthority.com/2025/06/ford-ceo-jim-farley-says-next-gen-evs-will-be-cheaper-than-current-lineup/.

[52] Slowik, P. et al., International Council on Clean Transportation, *Assessment of light-duty electric vehicle costs and consumer benefits in the United States in the 2022–2035 time frame*, October 2022, available at https://theicct.org/publication/ev-cost-benefits-2035-oct22/.

[53] Stoklosa, A., "The Super-Affordable 2027 Chevrolet Bolt EV Is Coming Soon—Very Soon," *Motortrend*, June 2025, available at https://www.motortrend.com/news/2027-chevrolet-bolt-everything-you-need-to-know.

[54] Banner, J., "The Cheap Tesla Is Almost Here—and We Finally Know What It'll Look Like," *Motortrend*, July 2025, available at https://www.motortrend.com/news/cheap-tesla-model-y-coming-2025.

[55] Kothari, S., "General Motors Says New LMR Battery Will Deliver Major Cost Savings," *Inside EVs*, July 2025, available at https://insideevs.com/news/766646/gm-lmr-battery-cost-savings-lfp/.

[56] GM News, "GM and LG Energy Solution to pioneer LMR battery cell technology," May 2025, available at https://news.gm.com/home.detail.html/Pages/news/us/en/2025/may/0513-GM-LG-Energy-Solution-pioneer-LMR-battery-cell-technology.html.

[57] Mile, N., "Ford's Michigan EV battery plant backed by tax credits after political reboot," *Fox: WFXR*, July 2025, available at https://www.wfxrtv.com/automotive/fords-michigan-ev-battery-plant-backed-by-tax-credits-after-political-reboot/?nxsparam=9.

[58] Toussaint, K., "The first big batch of used EVs will hit the market in 2026. No one knows what's going to happen," *Fast Company*, January 2024, available at https://www.fastcompany.com/91018102/the-first-big-batch-of-used-evs-will-hit-the-market-in-2026-no-one-knows-whats-going-to-happen.

[59] Department of Environment, Great Lakes, and Energy, "Clean Fuel and Charging Infrastructure Program," accessed July 2025, available at https://www.michigan.gov/egle/about/organization/materials-management/energy/rfps-loans/clean-fuel-and-charging-infrastructure-program.

Q. Do you expect that the global automotive industry will continue to encourage EV adoption in the short- and long-term?

A. Despite the retraction of federal support in the United States, experts and industry leaders in the global automotive sector still firmly believe that EVs are the future of transportation.[62, 63] In fact, the 2025 EV Outlook report by Bloomberg New Energy Finance ("BloombergNEF") finds that EVs will reach 56% of new vehicle sales globally by 2035 and 70% by 2040, which is only a 3% decrease from the previous outlook conducted in 2020.[64] Furthermore, the same BloombergNEF report indicates that the United States will have just over 35 million EVs on the road by 2035,[65] only marking a 5-year slowdown in EV adoption from forecasts developed in 2024.[66] Consequently, while EV adoption forecasts in the United States have changed, EVs will continue to make up a growing

[60] Executive Office of the Governor, "Executive Directive 2023-5: Conversion of State Fleet," December 2023, available at https://www.michigan.gov/whitmer/news/state-orders-anddirectives/2023/12/05/executive-directive-2023-5-conversion-of-state-fleet.

[61] Michigan Department of Transportation, "MDOT NEVI Design-Build-Operate-Maintain (DBOM) Project - Notification of Selection," June 2025, available at https://www.michigan.gov/mdot/-/media/Project/Websites/MDOT/Business/Contractors/Innovative-Contracting/NEVI---2/Notification-of-Selection.pdf?rev=6451b2352ab14cd2a84a075496f62c6f&hash=12DC631641D6A886192976DBDA00C8D8.

[62] Andreoni, M., "The Electric Vehicle Future Is Coming. Just a Little More Slowly," *The New York Times*, September 2024, available at https://www.nytimes.com/2024/09/05/climate/electric-vehicle-sales-projections.html.

[63] Bloomberg, "Despite Hurdles, Vehicle Electrification in the US Is Likely Here to Stay, Finds Bloomberg Intelligence," April 2024, available at https://www.bloomberg.com/company/press/despite-hurdles-vehicle-electrification-in-the-us-is-likely-here-to-stay-finds-bloomberg-intelligence/.

[64] BloombergNEF, *Electric Vehicle Outlook 2025*, 2025, available at https://assets.bbhub.io/professional/sites/24/202506-EVO2025-Executive-Summary.pdf.

[65] *Ibid.*

[66] BloombergNEF, "Electric Vehicle Outlook 2025 Overview," accessed August 2025, available at https://about.bnef.com/insights/clean-transport/electric-vehicle-outlook/#overview.

portion of new vehicle sales over the next decade and replace internal combustion engine ("ICE") vehicles.

American automakers recognize that to stay competitive in the race for global automotive sales, they will have no choice but to continue producing and investing in EVs. In 2023, global EV sales neared $14 million, largely driven by a rapidly growing Chinese automotive manufacturing industry that specializes in EV production.[67] With over 100 EV brands at various price points,[68] nearly 6 million EVs were sold domestically in China in 2022, and in 2023 that number increased even further by 35% to 8.1 million.[69, 70] In 2023, China overcame Japan as the world's leading vehicle exporter with 5.7 million vehicles exported,[71] 25% of which were EVs.[72, 73] Currently, 60% of the world's EVs and over 75% of the batteries that go into them are produced in China,[74] and new markets for Chinese

[67] International Energy Agency, *Global EV Outlook 2024: Trends in electric cars*, March 2025, available at https://www.iea.org/reports/global-ev-outlook-2024/trends-in-electric-cars.

[68] Reuters, "China's electric vehicles are around 3-5 years ahead, BYD CEO says," February 2025, available at https://www.reuters.com/business/autos-transportation/chinas-electric-vehicles-are-around-3-5-years-ahead-byd-ceo-says-2025-02-18/.

[69] *Ibid.*

[70] International Energy Agency, *Global EV Outlook 2024: Trends in electric cars*, March 2025, available at https://www.iea.org/reports/global-ev-outlook-2024/trends-in-electric-cars.

[71] Kennedy, S. Center for Strategic and International Studies, "The Chinese EV Dilemma: Subsidized Yet Striking," June 2024, available at https://www.csis.org/blogs/trustee-china-hand/chinese-ev-dilemma-subsidized-yet-striking.

[72] *Ibid.*

[73] Chang, A. and Bradsher, K., "How China Became the World's Largest Car Exporter," *The New York Times*, November 2024, available at https://www.nytimes.com/interactive/2024/11/29/business/china-cars-sales-exports.html.

[74] Zimmerman, M., Federal Reserve Bank of Boston, "A View of Recessions, from the Automotive Industry," *What Causes Business Cycles*, June 1998, available at https://www.bostonfed.org/-/media/Documents/conference/42/con42_20.pdf.

vehicles and parts are rapidly emerging, particularly in Europe and Southeast Asia.[75, 76, 77, 78, 79] Although American automotive manufacturers may make slight adjustments to their short-term priorities, it is clear that the longevity of these businesses is dependent upon investments in automated, electrified vehicles. As such, it is clear that despite recent policy-driven setbacks from the U.S. federal government, the shift to electrified transportation will continue and the state's utilities will need to be effectively prepared to meet the continued demand from EV adoption growth.

Q. How will changes to EV technology, prices, and availability impact EV adoption?

A. The continued movement towards range and price parity will address the two most important concerns that drivers have voiced about EVs - namely range anxiety and high upfront costs.[80] Today, the median range for ICE passenger vehicles is approximately 400

[75] Kennedy, S., Center for Strategic and International Studies, "The Chinese EV Dilemma: Subsidized Yet Striking," June 2024, available at https://www.csis.org/blogs/trustee-china-hand/chinese-ev-dilemma-subsidized-yet-striking.

[76] Reuters, "China's electric vehicles are around 3-5 years ahead, BYD CEO says," February 2025, available at https://www.reuters.com/business/autos-transportation/chinas-electric-vehicles-are-around-3-5-years-ahead-byd-ceosays-2025-02-18/.

[77] Chang, A. and Bradsher, K., "How China Became the World's Largest Car Exporter," *The New York Times*, November 2024, available at https://www.nytimes.com/interactive/2024/11/29/business/china-cars-sales-exports.html.

[78] International Energy Agency, *Global EV Outlook 2024: Trends in electric cars*, March 2025, available at https://www.iea.org/reports/global-ev-outlook-2024/trends-in-electric-cars.

[79] Buchholz, K., "Chinese Car Exports Continue to Soar as EV Share Grows," *Forbes*, March 2024, available at https://www.forbes.com/sites/katharinabuchholz/2024/03/28/chinese-car-exports-continue-to-soar-as-ev-share-grows-infographic/.

[80] EV Charging Summit, "10 Biggest Challenges Facing the EV Industry Today," January 2023, available at https://evchargingsummit.com/blog/challenges-facing-the-ev-industry-today/.

miles.[81] It is estimated that new EVs with a 400-mile range will reach price parity with their ICE counterparts between 2029 and 2033.[82] ICE vehicles and EVs with a lower range will reach price parity even sooner.[83] Since 2024, several global automakers, including General Motors, Tesla, and Volkswagen, have announced that new, low-cost EV models can be expected to reach the market as early as late 2025.[84, 85, 86, 87] EV affordability will also improve due to the growth of the used EV market, which is expected to surge in 2026 due to the number of leased EVs coming to the end of their lease terms.[88, 89] Lease-end

[81] U.S. Department of Energy, "FOTW #1221, January 17, 2022: Model Year 2021 All-Electric Vehicles Had a Median Driving Range about 60% That of Gasoline Powered Vehicles," January 2022, available at https://www.energy.gov/eere/vehicles/articles/fotw-1221-january-17-2022-model-year-2021-all-electric-vehicles-had-median.

[82] Slowik, P. et al., International Council on Clean Transportation, *Assessment of light-duty electric vehicle costs and consumer benefits in the United States in the 2022–2035 time frame*, October 2022, available at https://theicct.org/publication/ev-cost-benefits-2035-oct22/.

[83] Andreoni, M., "The Electric Vehicle Future Is Coming. Just a Little More Slowly," *The New York Times*, September 2024, available at https://www.nytimes.com/2024/09/05/climate/electric-vehicle-sales-projections.html.

[84] Stoklosa, A., "The Super-Affordable 2027 Chevrolet Bolt EV Is Coming Soon—Very Soon," *Motortrend*, June 2025, available at https://www.motortrend.com/news/2027-chevrolet-bolt-everything-you-need-to-know.

[85] Banner, J., "The Cheap Tesla Is Almost Here—and We Finally Know What It'll Look Like," *Motortrend*, July 2025, available at https://www.motortrend.com/news/cheap-tesla-model-y-coming-2025.

[86] Jolly, J., "Can flood of cheap EVs coming to Europe save its carmakers?," *The Guardian*, December 2024, available at https://www.theguardian.com/business/2024/dec/31/can-flood-of-cheap-new-evs-coming-to-europe-save-european-carmakers.

[87] While the price of these new models will likely be impacted by the implementation of tariffs on essential components, like steel, aluminum, and lithium, these impacts will apply to all vehicles, not just EVs. *See for example* Egan, M., "Every car is about to get more expensive. 'It's just the math,' former Ford CEO says," *CNN Business*, April 2025, available at https://www.cnn.com/2025/04/03/business/car-prices-tariffs-trump#.

[88] Toussaint, K., "The first big batch of used EVs will hit the market in 2026. No one knows what's going to happen," *Fast Company*, January 2024, available at https://www.fastcompany.com/91018102/the-first-big-batch-of-used-evs-will-hit-the-market-in-2026-no-one-knows-whats-going-to-happen.

[89] St. John, A., "Don't buy an EV — lease one instead. Here's why.," *Business Insider*, March 2023, available at https://www.businessinsider.com/ev-electric-car-lease-vs-purchase-buying-tips-cost-2023-2.

vehicles are often sold at auctions, where used vehicle dealers purchase their inventory.[90] Reports show that EV leases rose from 8.6% of all EV sales at the beginning of 2023 to 23.9% at the end of the same year.[91] Consequently, as two of the most significant barriers to EV adoption come down, new drivers that make up the early majority phase of adoption[92] will start to buy into the EV market.[93]

Q. What is the State of Michigan doing to enable EV adoption?

A. In December 2023, Governor Whitmer issued Executive Directive 2023-5 to transition the state's fleet to zero emission vehicles ("ZEVs"), stating that the state's LD vehicles must be converted to zero-emission alternatives by 2033 and MHD vehicles must be converted to ZEVs by 2040.[94] Executive Directive 2023-5 also directs the state to coordinate with

[90] Auto4Export, "Why Do Cars Go to Auction? Understanding the Reasons Behind Auto Auctions," December 2024, available at https://www.auto4export.com/blog/why-do-cars-go-to-auction-understanding-the-reasons-behind-auto-auctions.

[91] Toussaint, K., "The first big batch of used EVs will hit the market in 2026. No one knows what's going to happen," *Fast Company*, January 2024, available at https://www.fastcompany.com/91018102/the-first-big-batch-of-used-evs-will-hit-the-market-in-2026-no-one-knows-whats-going-to-happen.

[92] Everett Rogers' diffusion of innovations theory explains the adoption of new concepts and technologies by creating consumer classifications based on what motivates them to accept the new idea or item and when they will adopt it for themselves. The main classifications identified in order of time to adoption are "innovators," "early adopters," "early majority," "late majority," and "laggards." Innovators make up 2.5% of the adopters, early adopters - 13.5%, early majority - 34%, late majority - 34%, and laggards - 16%. It is assumed that a product or idea has moved from niche to mainstream penetration once it is in the early majority adoption phase. *See* Halton, C., "Diffusion of Innovations Theory: Definitions and Examples," *Investopedia*, May 2025, available at https://www.investopedia.com/terms/d/diffusion-of-innovations-theory.asp; and On Digital Marketing, "The 5 Customer Segments of Technology Adoption," accessed July 2025, available at https://ondigitalmarketing.com/learn/odm/foundations/5-customer-segments-technology-adoption/.

[93] Thornton, T. and Teasdale, R., Baringa, "From early adopters to early majority: Driving the next phase of EV growth," March 2025, available at https://www.baringa.com/en/insights/low-carbon-futures/driving-next-phase-of-ev-growth/.

[94] Executive Office of the Governor, "Executive Directive 2023-5: Conversion of State Fleet," December 2023, available at https://www.michigan.gov/whitmer/news/state-orders-anddirectives/2023/12/05/executive-directive-2023-5-conversion-of-state-fleet.

higher education institutions and local units of government to assist these entities to transition to zero-emission fleets.[95] As of November 2023, there were 137,073 publicly owned vehicles across the state, including vehicles owned or leased by the state, counties, municipalities, or other local units of government.[96] Of those vehicles, 37,415 are classified as automobiles, 866 as buses, 97,987 as trucks, and 805 as motorcycles.[97]As of December 2024, there were 14,761 owned and leased vehicles in the State of Michigan's vehicle fleet alone, and nearly 95% were classified as LD while the remaining 5% were MHD vehicles.[98] In July 2024, the State of Michigan announced a partnership between Geotab Inc., a transportation solutions provider, and Wheels, a fleet management company, to provide telematics solutions that would help the state to prioritize the vehicles appropriate for electrification and identify operational efficiency opportunities.[99] The transition of the state fleet from gas-powered vehicles to EVs will represent considerable EV adoption growth in Michigan for which the state's utilities will need to plan over the next decade.

[95] *Ibid.*

[96] U.S. Department of Transportation, Federal Highway Administration, "Highway Statistics 2022," February 2025, available at https://www.fhwa.dot.gov/policyinformation/statistics/2022/mv1.cfm.

[97] *Ibid.*

[98] Michigan Department of Technology, Management, and Budget, *2025 State of Michigan Fleet Plan*, December 2024, available at https://www.michigan.gov/dtmb/-/media/Project/Websites/dtmb/Law-and-Policies/Legislative-Reports/FY2025/2025-Fleet-Plan.pdf?rev=92dfd053e5514de3b3b081d2c357ce49&hash=66D77ECA9DDB57031EC46E63964CA4A1.

[99] Geotab Inc., "Michigan Selects Geotab and Wheels for Zero-Emission Fleet Initiative, Aligning with Executive Directive," July 2024, available at https://www.geotab.com/press-release/michigan-contract/.

Increasing access to and awareness of public charging infrastructure has also been shown to directly enable customers to purchase EVs.[100, 101, 102, 103] In addition to utility rebate programs, several state and federal funding programs are increasing access to charging infrastructure across Michigan. For example, in January 2025, the Michigan Department of Environment, Great Lakes, and Energy ("EGLE") launched the Clean Fuel and Charging Infrastructure ("CFCI") grant program to enable charging infrastructure deployment to multi-family housing, public, and fleet applications.[104] Separately, in June 2025, the Michigan Department of Transportation announced the awardees for its second round of National Electric Vehicle Infrastructure ("NEVI") program funds.[105] Furthermore, in August 2025, the U.S. Department of Transportation announced that it does not intend to rescind NEVI program funds and, in fact, plans to allow states more flexibility in funding

[100] Osaka, S., The Washington Post, "For each public charger, here's how many EVs are looking to plug in," May 2024, available at https://www.washingtonpost.com/climate-solutions/2024/05/20/charging-stations-lag-ev-sales/.

[101] Center for Sustainable Energy, "The State of Electric Vehicle Adoption in the U.S. and the Role of Incentives in Market Transformation," September 2023, available at https://energycenter.org/thought-leadership/blog/stateelectric-vehicle-adoption-us-and-role-incentivesmarket#:~:text=Publicly%20available%20EV%20charging%20inspires,apartments%2C%20to%20charge%20an%2 0EV.

[102] U.S. Department of Energy, Alternative Fuels Data Center, "Charging Electric Vehicles in Public," June 2024, available at https://afdc.energy.gov/fuels/electricity-charging-public.

[103] International Energy Agency, "Global EV Outlook 2024: Moving towards increased affordability," 2024, available at https://iea.blob.core.windows.net/assets/a9e3544b-0b12-4e15-b407-65f5c8ce1b5f/GlobalEVOutlook2024.pdf.

[104] Department of Environment, Great Lakes, and Energy, "Clean Fuel and Charging Infrastructure Program," July 2024, available at https://www.michigan.gov/egle/about/organization/materials-management/energy/rfps-loans/clean-fuel-and-charging-infrastructure-program.

[105] Michigan Department of Transportation, "NEVI Round 2 Selections," June 2025, available at https://www.michigan.gov/mdot/-/media/Project/Websites/MDOT/Business/Contractors/Innovative-Contracting/NEVI---2/Notification-of-Selection.pdf?rev=6451b2352ab14cd2a84a075496f62c6f&hash=12DC631641D6A886192976DBDA00C8D8.

implementation.[106] Fewer restrictions could mean a more efficient deployment of program funds and supported charging stations. The operationalization of the state's NEVI-supported stations, coupled with the continued deployment of CFCI funding and utility rebates, will improve consumer visibility of new and existing charging opportunities throughout the state, instilling greater confidence that they would be adequately supported if they purchase an EV.

C. EV IMPACTS ON DTE'S LOAD FORECASTS

Q. How did the Company account for EVs in its load forecasts from 2024-2029?

A. The Company assumes that 75% of LD EV charging takes place at a personal residence and the other 25% in a non-residential setting, and thus applies 75% of EV adoption forecasts to the residential load forecast and the remaining 25% to the small and large commercial and industrial ("C&I") forecast.[107] The Company assumes that fleet vehicles are all MHD vehicles, and applies 100% of forecasted fleet EV sales to the large C&I load forecast model.[108]

[106] Schwab, G., "Trump administration pledges to keep, streamline much-maligned EV charger program," *The Detroit News*, August 2025, available at https://www.detroitnews.com/story/business/autos/2025/08/11/trump-administration-pledges-to-keep-streamline-ev-charger-program/85611736007/.

[107] Leuker Direct, p. 23.

[108] *Id.*, p. 24.

Q. How will LD and MHD EVs contribute to load growth?

A. LD EVs are reaching price parity and range parity with gas-powered vehicles faster than the MHD EV segment.[109, 110] As such, Michigan will continue to see more rapid growth in LD EVs.[111] However, because demand for charging is often more concentrated for fleet MHD EVs, that load may also be significant in the future.

Although LD EVs will be more widely dispersed across the state, the magnitude of EV adoption in both segments is expected to be far higher in existing population centers where demand is already high.[112] For passenger vehicle drivers, this can be partly attributed to the more robust EV charging infrastructure in place in urban areas, as well as shorter driving distances to common places of interest, such as workplaces, doctor's offices, and grocery stores.[113, 114] In addition, the population density, coupled with the proximity to innovation,

[109] U.S. Department of Energy Vehicle Technologies Office, "FOTW #1354, August 5, 2024: Electric Vehicle Battery Pack Costs for a Light-Duty Vehicle in 2023 Are 90% Lower than in 2008, according to DOE Estimates," August 2024, available at https://www.energy.gov/eere/vehicles/articles/fotw-1354-august-5-2024-electric-vehicle-battery-pack-costs-light-duty.

[110] National Renewable Energy Lab (NREL), "Study Examines Cost Competitiveness of Zero-Emission Trucks," April 2024, available at https://www.nrel.gov/news/program/2024/study-examines-cost-competitivenessof-zero-emission-trucks.html.

[111] Energy Power Research Institute, Inc., "GridREADY: Preparing for EV Loads at Scale through Improved Planning, Prioritization, and Proactiveness," February 2025, available at https://epri.app.box.com/folder/311418861347.

[112] Energy Power Research Institute, Inc., "GridREADY: Preparing for EV Loads at Scale through Improved Planning, Prioritization, and Proactiveness," February 2025, available at https://epri.app.box.com/folder/311418861347.

[113] Sala, L. et al., "Generating demand responsive bus routes from social network data analysis," Transportation Research Part C: Emerging Technologies, 128 (2021), pp. 1-15, available at https://www.sciencedirect.com/science/article/abs/pii/S0968090X21002102.

[114] Higueras-Castillo, E. et al., "Voltage variations: Unraveling electric vehicle appeal in urban vs. rural areas," *Cities*, Vol. 159, April 2025, available at https://www.sciencedirect.com/science/article/pii/S0264275125001155#bb0305.

enables faster information sharing and diffusion of new innovation.[115] For MHD drivers, fleet depots and manufacturing sites are often collocated with local communities, transportation infrastructure, and a larger labor pool, and therefore are more often found near population centers.[116]

This is reflected in the Electric Power Research Institute's ("EPRI") eRoadmap GridReady tool, which indicates that a majority of electric load growth attributable to EVs is going to be concentrated in dense population centers and along freight corridors, such as around the Detroit, Lansing, and Grand Rapids areas.[117] And, of the top 10 counties projected to see the largest increases in EV electricity load, seven - Oakland, Wayne, Macomb, Washtenaw, Genesee, Ingham, and Livingston - are concentrated in the Company's service territory.[118, 119] EPRI reports that this will result in 12,000 MWh in daily load growth attributable to EVs, less than 2,000 MWh of which will come from MHD EVs.[120]

[115] Colvile, R., "Welcome to the 'Great Acceleration': how a faster world is helping to make us all richer," *Wired*, August 2016, available at https://www.wired.com/story/cities-lead-to-growth-speed-creativity/.

[116] Steele, C.W. et al., "Background Research Material for Freight Facility Selection: A Guide for Public Officials (NCFRP Report 13)," Chapter 5: The Location Selection Process, May 2011, available at https://nap.nationalacademies.org/read/22862/chapter/9.

[117] Electric Power Research Institute (EPRI), "eRoadmap GridReady," accessed July 2025, available at https://eroadmap.epri.com/.

[118] Energy Power Research Institute, Inc., "GridREADY: Preparing for EV Loads at Scale through Improved Planning, Prioritization, and Proactiveness," February 2025, available at https://epri.app.box.com/folder/311418861347.

[119] Energy Power Research Institute, Inc., "eRoadMAP," accessed July 2025, available at https://eroadmap.epri.com/.

[120] Energy Power Research Institute, Inc., "GridREADY: Preparing for EV Loads at Scale through Improved Planning, Prioritization, and Proactiveness," February 2025, available at https://epri.app.box.com/folder/311418861347.

However, while MHD EV adoption and attributed load is relatively low today, the upgrade requirements to support this scale of concentrated adoption will require time and careful planning on the part of the state's utilities.[121] This is because, depending on the vehicle type, battery size, and type of charging, a single MHD EV can require 0.4-1.0 MWh to get to a full state of charge.[122, 123] Thus, unless enrolled in a smart or managed charging program, a fleet operator with between 10 and 100 MHD EVs in its fleet could require anywhere from 10 to 100 MWh of energy to support its daily operations.[124]

[121] *Ibid.*

[122] Freightliner, "You Asked, We Answered: Electric Truck FAQs," accessed July 2025, available at https://www.freightliner.com/blog-and-newsletters/electric-truck-faqs/.

[123] Kane, M., "Tesla Launches 1,000-Volt Powertrain: Semi Is First But Not The Last," December 2022, available at https://insideevs.com/news/624822/tesla-1000volt-powertrain-semi-first/.

[124] National Renewable Energy Laboratory, "Researchers Identify Near-Term Opportunity for Heavy-Duty Electric Trucks," June 2021, available at https://www.nrel.gov/news/detail/program/2021/researchers-identify-near-term-opportunities-for-heavy-duty-trucks.

D. IMPLICATIONS OF EV ADOPTION FOR DTE AND ITS CUSTOMERS

Q. What is the value of enabling EV adoption in the Company's service territory?

A. As previously stated, experts assert that the existence of public charging infrastructure directly enables customers to purchase EVs,[125, 126, 127, 128] leading to significant at-home charging and revenue from electricity sales.[129, 130, 131, 132, 133] In its 2024 TEP, the Company projects that while initially the TEP portfolio applies rate pressure, it is offset by future rate relief, netting $56 million for all customers in the DTE service territory between 2025 and

[125] Osaka, S., The Washington Post, "For each public charger, here's how many EVs are looking to plug in," May 2024, available at https://www.washingtonpost.com/climate-solutions/2024/05/20/charging-stations-lag-ev-sales/.

[126] Center for Sustainable Energy, "The State of Electric Vehicle Adoption in the U.S. and the Role of Incentives in Market Transformation," September 2023, available at https://energycenter.org/thought-leadership/blog/stateelectric-vehicle-adoption-us-and-role-incentivesmarket#:~:text=Publicly%20available%20EV%20charging%20inspires,apartments%2C%20to%20charge%20an%2 0EV.

[127] U.S. Department of Energy, Alternative Fuels Data Center, "Charging Electric Vehicles in Public," June 2024, available at https://afdc.energy.gov/fuels/electricity-charging-public.

[128] International Energy Agency, "Global EV Outlook 2024: Moving towards increased affordability," 2024, available at https://iea.blob.core.windows.net/assets/a9e3544b-0b12-4e15-b407-65f5c8ce1b5f/GlobalEVOutlook2024.pdf.

[129] Nadel, S., American Council for an Energy-Efficient Economy (ACEEE), "Charging Ahead: How EVs Could Drive Down Electricity Rates," January 2024, available at https://www.aceee.org/blog-post/2024/01/charging-ahead-how-evs-could-drive-down-electricity-rates.

[130] Metz, L. et al., Synapse Energy Economics, Inc., "Distribution System Investments to Enable Medium- and HeavyDuty Vehicle Electrification: A Case Study of New York," April 2023, available at https://acrobat.adobe.com/id/urn:aaid:sc:US:3ef62d18-a652-4848-a2a5-15eb2771d8cc.

[131] Synapse Energy Economics, Inc., "Are Driving Rates Down for All Customers: State-by-State Cumulative EV Net Rate Impact Summary," June 2024, available at https://www.synapse-energy.com/sites/default/files/EV%20All%20State%20List%20PDF_0.pdf.

[132] Satchwell, A. et al., Prepared for the U.S. Department of Energy, "Quantifying the Financial Impacts of Electric Vehicles on Utility Ratepayers and Shareholders," February 2023, available at https://etapublications.lbl.gov/sites/default/files/ev_financial_impacts_final_report_final_draft_02092023.pdf.

[133] California Public Utilities Commission, "Utility Cost and Affordability of the Grid of the Future: An Evaluation of Electric Costs, Rates, and Equity Issues Pursuant to P.U. Code Section 913.1. 2021," available at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/office-of-governmental-affairs-division/reports/2021/senate-bill-695-report-2021-and-en-bancwhitepaper_final_04302021.pdf.

2067.[134] The Company notes that this is likely a conservative estimate, as it only increased load attributed to rebated chargers and does not account for network effects of EV sales.[135]

Similar impacts have been observed in other states. For example, in a Synapse Energy Economic study, from 2012 - 2019, California utilities Pacific Gas and Electric ("PG&E") and Southern California Edison ("SCE") managed EV programs of about $220 million and $150 million, respectively.[136, 137] This encouraged EV adoption, leading to increased revenue from charging amounting to nearly $700 million in PG&E's territory and $500 million in SCE's territory.[138, 139] Synapse Energy Economics conducted a follow-up study of other utilities in 2024, examining the revenues and costs associated with EVs between 2011 and 2021. It found that EV drivers have contributed about $18 million more than their

[134] Foley, N., DTE Electric Company, "DTE Electric Transportation Electrification Plan - Filed," Exhibit A29, Schedule S1, April 2025, available at https://mi-psc.my.site.com/sfc/servlet.shepherd/version/download/068cs00000lnYS8AAM.

[135] *Ibid*.

[136] Alliance for Transportation Electrification and Plug In America, *The Missing Piece on Meeting Transportation Electrification Goals: Utility Education and Outreach Programs*, December 2020, available at https://evtransportationalliance.org/wp-content/uploads/2021/11/2020-Education-Outreach-White-Paper.pdf.

[137] Frost, J. et al., Synapse Energy Economic, Inc. "Electric Vehicles Are Driving Electric Rates Down," June 2020, available at https://www.synapse-energy.com/sites/default/files/EV_Impacts_June_2020_18-122.pdf.

[138] Alliance for Transportation Electrification and Plug In America, *The Missing Piece on Meeting Transportation Electrification Goals: Utility Education and Outreach Programs*, December 2020, available at https://evtransportationalliance.org/wp-content/uploads/2021/11/2020-Education-Outreach-White-Paper.pdf.

[139] Frost, J. et al., Synapse Energy Economic, Inc. "Electric Vehicles Are Driving Electric Rates Down," June 2020, available at https://www.synapse-energy.com/sites/default/files/EV_Impacts_June_2020_18-122.pdf.

associated costs in each of Illinois[140] and Virginia,[141] $26.7 million more in Colorado,[142] and $85.3 million more in New Jersey.[143] In Colorado[144] and New Jersey,[145] when utility expenditures on EV programs are included in costs, the net revenue still exceeds costs by approximately $15.7 and $62.7 million, respectively. Consequently, as utilities continue to invest in EV programs, the resultant increased EV adoption actually leads to downward rate pressure for all ratepayers.

In addition, EV deployment represents an opportunity to maximize the benefits of EVs in service to the local distribution system. For the grid-operator, deployment and use of bidirectional capable EVs and EV chargers creates an available demand response tool to

[140] Shenstone-Harris, S. et al., Synapse Energy Economics, Inc., "Electric Vehicles are Driving Rates Down for All Customers, State Factsheet: Illinois," April 2024, available at https://www.synapse-energy.com/sites/default/files/Electric%20Vehicles%20Are%20Driving%20Rates%20Down%20for%20All%20Customer%20Illinois%20May%202024.pdf.

[141] Shenstone-Harris, S. et al., Synapse Energy Economics, Inc., "Electric Vehicles are Driving Rates Down for All Customers, State Factsheet: Virginia," April 2024, available at https://www.synapse-energy.com/sites/default/files/Electric%20Vehicles%20Are%20Driving%20Rates%20Down%20for%20All%20Customer%20Virginia%20May%202024%2024-023.pdf.

[142] Shenstone-Harris, S. et al., Synapse Energy Economics, Inc., "Electric Vehicles are Driving Rates Down for All Customers, State Factsheet: Colorado," April 2024, available at https://www.synapseenergy.com/sites/default/files/Electric%20Vehicles%20Are%20Driving%20Rates%20Down%20for%20All%20Cus tomer%20Colorado%20May%202024.pdf.

[143] Shenstone-Harris, S. et al., Synapse Energy Economics, Inc., "Electric Vehicles are Driving Rates Down for All Customers, State Factsheet: New Jersey," April 2024, available at https://www.synapseenergy.com/sites/default/files/Electric%20Vehicles%20Are%20Driving%20Rates%20Down%20for%20All%20Cus tomer%20New%20Jersey%20April%202024.pdf.

[144] Shenstone-Harris, S. et al., Synapse Energy Economics, Inc., "Electric Vehicles are Driving Rates Down for All Customers, State Factsheet: Colorado," April 2024, available at https://www.synapseenergy.com/sites/default/files/Electric%20Vehicles%20Are%20Driving%20Rates%20Down%20for%20All%20Cus tomer%20Colorado%20May%202024.pdf.

[145] Shenstone-Harris, S. et al., Synapse Energy Economics, Inc., "Electric Vehicles are Driving Rates Down for All Customers, State Factsheet: New Jersey," April 2024, available at https://www.synapseenergy.com/sites/default/files/Electric%20Vehicles%20Are%20Driving%20Rates%20Down%20for%20All%20Cus tomer%20New%20Jersey%20April%202024.pdf.

balance grid conditions and allows utilities to defer investment in other more intensive grid-scale options.[146] According to a study by EPRI, California's current frequency regulation market could be fully served by only around 100,000 vehicle-to-grid ("V2G")-enabled EVs, which is a fraction of the state's goal of 5 million EVs by 2030.[147] The same study found an annual relative savings of between $407 and $1,018 for ratepayers with V2G-enabled EVs.[148] Customers in California's San Diego County school district saw these benefits during a 10-day 2022 heat wave, during which the school district was able to send energy back to the grid and power 452 homes every day.[149, 150] Given the grid reliability challenges faced in Michigan identified in the Commission's audit of DTE

[146] Michigan Energy Innovation Business Council and Clean Fuels Michigan, *Transportation Electrification in Michigan: A Roadmap to State Policy Actions*, October 2024, available at https://www.mieibc.org/wp-content/uploads/2024/10/Transportation-Electrification-in-Michigan.pdf.

[147] Chhaya, S. Electric Power Research Institute, "Open Standards-Based Vehicle-to-Grid: Value Assessment," June 2019, available at https://www.epri.com/research/products/000000003002014771.

[148] *Ibid.*

[149] CalMatters, "Here's how California's electric cars can feed the grid and help avoid outages," September 2023, available at https://calmatters.org/environment/2023/07/california-electric-cars-bidirectional-charging/.

[150] Sheja, C., Center for Sustainable Energy, "Grid Integration of EV Batteries Can Benefit Drivers and Energy Providers," February 2024, available at https://energycenter.org/thought-leadership/blog/grid-integration-ev-batteries-can-benefit-drivers-and-energy-providers.

Electric and Consumers Energy,[151, 152, 153, 154, 155] EVs represent a largely untapped grid resource that would benefit ratepayers and energy providers alike.

Q. Why is proactive planning important for utilities when it comes to preparing for increased EV load growth?

A. Proactive planning for EV adoption can save utilities and ratepayers in the long run.[156, 157] A 2024 study found that proactive grid maintenance and upgrades in response to increased EV load growth resulted in about $20 million in savings compared to reactive upgrades in Con Edison's territory (New York City and Westchester County, NY), and $10-13 million

[151] Michigan Public Service Commission, "MPSC releases utility audit results of state's two largest electric utilities, data that will help improve reliability in Michigan," September 2024, available at https://www.michigan.gov/mpsc/commission/news-releases/2024/09/23/mpsc-releases-utility-audit-results-of-states-two-largest-electric-utilities.

[152] Citizens Utility Board, "The Grid Audit of DTE and Consumers Energy: Some Early Takeaways," October 2024, available at https://cubofmichigan.org/blog/the-grid-audit-of-dte-and-consumers-energy-some-early-takeaways/.

[153] Walton, R., "Michigan regulators order reliability improvements for Consumers Energy, DTE," *Utility Dive*, June 2025, available at https://www.utilitydive.com/news/michigan-regulators-order-reliability-improvements-consumers-dte/750769/.

[154] White, E., "Northern Michigan — no stranger to wild weather — tries to cope with days of no power," *AP News*, April 2025, available at https://apnews.com/article/michigan-ice-storm-power-outages-4807b995fd4f9acbe1cdc7715e2bbaef.

[155] Rappleye, L., "Up North residents hit by ice storm endure cold, power outages: 'How are we gonna manage?'," *Detroit Free Press*, April 2025, available at https://www.freep.com/story/news/local/michigan/2025/04/14/northern-michigan-ice-storm-power-outage-up-north/83070910007/.

[156] Black & Veatch, "Pro-Active Grid Investment Assessment: Medium- and Heavy-Duty Vehicle Transportation Electrification," November 2024, available at https://library.edf.org/AssetLink/1sf1n64na1m7b636rs127w4wqvs11d4e.pdf?_gl=1*14rezcp*_gcl_au*MjczNzI5MDQ0LjE3NTM3MTg4MDQ.*_ga*NzAxMjcwMzkzLjE3NTM3MTg4MDQ.*_ga_2B3856Y9QW*czE3NTM3MTg4MDMkbzEkZzEkdDE3NTM3MTg5OTUkajQ4JGwwJGgw.

[157] Sahoo, A. et al., BCG, "The Costs of Revving Up the Grid for Electric Vehicles," December 2019, available at https://web-assets.bcg.com/img-src/costs-revving-up-the-grid-for-electric-vehicles_tcm9-236324-64_tcm9-237341.pdf.

in savings in CenterPoint's service territory (Houston, TX).[158] Additionally, models from the same study showed that even in the lowest EV adoption scenario, an "all proactive" upgrade approach still yielded higher savings than a mixed proactive and reactive approach.[159] This suggests that overestimating, and subsequently upgrading to meet, EV load growth carries limited risk.[160]

Utility TEPs and distribution system plans are critical, informative tools to ensure that the Company is effectively able to predict, plan, and execute necessary distribution system upgrades to meet the resulting load growth attributable to EVs.[161, 162, 163] More specifically, the customer engagement driven by education and outreach programs, as well as the customer enrollment in rebate and TOU rates, informs utilities of EV penetration trends in their service territories and where load growth is expected. Delaying upgrades or artificially reducing projected load growth risks impairing utilities' visibility into future EV-related load growth, potentially resulting in suboptimal upgrade decisions, longer energization

[158] Black & Veatch, "Pro-Active Grid Investment Assessment: Medium- and Heavy-Duty Vehicle Transportation Electrification," November 2024, available at https://library.edf.org/AssetLink/1sf1n64na1m7b636rs127w4wqvs11d4e.pdf?_gl=1*14rezcp*_gcl_au*MjczNzI5MDQ0LjE3NTM3MTg4MDQ.*_ga*NzAxMjcwMzkzLjE3NTM3MTg4MDQ.*_ga_2B3856Y9QW*czE3NTM3MTg4MDMkbzEkZzEkdDE3NTM3MTg5OTUkajQ4JGwwJGgw.

[159] *Ibid.*

[160] *Ibid.*

[161] Morash, S., Lawrence Berkeley National Laboratory, "Charging Ahead: Grid Planning for Vehicle Electrification," January 2024, available at https://www.esig.energy/wp-content/uploads/2024/01/ESIG-Grid-Planning-Vehicle-Electrification-report-2024.pdf.

[162] Shapiro, B. and Pesta, N., RMI, "Six Building Blocks to Prepare the Grid for EVs," October 2024, available at https://rmi.org/six-building-blocks-to-prepare-the-grid-for-evs/.

[163] Taylor, P., American Public Power Association, "Proactive Grid Build for Transportation Electrification," January 2025, available at https://www.publicpower.org/resource/proactive-grid-build-transportation-electrification.

timelines for new load, and grid constraints. In other words, while postponing upgrades required to meet EV adoption growth may yield short-term savings, the long-term financial and operational liabilities, as well as customer service impacts, could be far greater.

E. EDUCATION & OUTREACH ("E&O")

Q. What is the Company proposing in terms of E&O, and what activities will it support?

A. In its 2024 TEP, the Company proposed the allocation of $6.0 million in its Operations and Maintenance budget from 2025–2028 to support E&O for the TEP.[164] The Company is proposing that $1.5 million of its O&M spending be dedicated to E&O in 2026 to continue supporting customer outreach activities in 2026.[165] These include in-person EV "Ride and Drives," which give customers the opportunity to test drive EVs, as well as emails, bill messages, print materials, social media posts, digital marketing, the Virtual Showroom, and updates to the website.[166] The Company's eFleet Advisory Services also fall under the E&O program, and witness Foley indicates that the Company is considering a similar service to enable EV charging deployment to MUD customers.[167]

[164] Foley, N., DTE Electric Company, "DTE Electric Transportation Electrification Plan - Filed," Exhibit A29, Schedule S1, April 2025, available at https://mi-psc.my.site.com/sfc/servlet.shepherd/version/download/068cs00000lnYS8AAM.

[165] Foley Direct, p. 32.

[166] *Ibid.*

[167] *Ibid.*

The Company has developed a variety of critical resources to ensure that customers have the information they need to complete their rebate applications and learn more about how to prepare for the transition to an EV. This outreach includes, but is not limited to:

- *Website development*: The Company maintains "EV Resources" websites for business[168] and residential[169] customers, both of which are well organized and should allow customers to easily navigate the types of EV charging rebates available to them. The business site includes links to information about charger types, the installation process, a directory of electricians, and commercial charging rates, as well as to the Company's Emerging Technology Fund. Each rebate opportunity - eFleets,[170] Multifamily,[171] Workplace and Retail,[172] and Public Charging[173] - also has its own dedicated site, each of which includes basic rebate information, access to the rebate agreement, steps to follow to complete the rebate application, and a contact method for customer assistance. The eFleet Rebate page also includes a link to the Company's Advisory Services.[174]

[168] DTE Energy, "Electric Vehicle Resource," accessed July 2025, available at https://www.dteenergy.com/us/en/business/service-request/pev/plug-in-electric-vehicles-pev.html.

[169] *Ibid.*

[170] DTE Energy, "eFleet Charger Rebate," accessed July 2025, available at https://www.dteenergy.com/us/en/business/service-request/pev/efleet-charger-rebate.html.

[171] DTE Energy, "Multifamily EV Charger Rebate," accessed July 2025, available at https://www.dteenergy.com/us/en/business/service-request/pev/multifamily-ev-charger-rebate.html.

[172] DTE Energy, "Workplace and Retail EV Charger Rebate," accessed July 2025, available at https://www.dteenergy.com/us/en/business/service-request/pev/workplace-and-retail-ev-charger-rebate.html.

[173] DTE Energy, "Public EV Charger Rebate," accessed July 2025, available at https://www.dteenergy.com/us/en/business/service-request/pev/public-ev-charger-rebate.html.

[174] DTE Energy, "Advisory Services," accessed July 2025, available at https://www.dteenergy.com/us/en/business/service-request/pev/advisory-services.html.

- *Advisory Services*: Broadly, the Company offers assistance to fleet operators, workplace and retail locations, and potential hosts for public charging via a form on the "Advisory Services" webpage to be completed by the prospective applicant. Within the Company's Advisory Services is the eFleet Advisory Service, which is free assistance that the Company offers to fleet operators to educate them on vehicles and chargers, inform the customer about available incentives, conduct a comprehensive total cost of ownership analysis, compare the potential savings the customer could accrue by switching to an EV, and establish an appropriate workplan (Exhibit MEIU-1.2).[175]
- *Marketing materials*: In a discovery response, the Company indicated that it uses print and digital marketing materials to educate customers, especially for MUD and fleet customers (Exhibit MEIU-1.3, Exhibit MEIU-1.4). Print media is distributed at a variety of in-person events (Exhibit MEIU-1.3, Exhibit MEIU-1.4), such as meetings held by the Apartment Association of Michigan, to reach prospective MUD customers (Exhibit MEIU-1.5), and "ride and drive" events to reach prospective EV fleet and residential customers (Exhibit MEIU-1.6).
- *Engagement with Community Partners*: In a discovery response, the Company noted its relationship with community partners, such as the Apartment Association of Michigan, the Michigan State Housing Authority, the 2030 Districts, EGLE, the Michigan Association of Counties, and the Michigan Municipal League (Exhibit MEIU-1.3, Exhibit MEIU-1.4). More specifically to identify prospective LI MUD customers, DTE also details its engagement with external partners as follows:

[175] DTE Energy, "eFleet Advisory Services," accessed July 2025, available at https://efleets.dteenergy.com/.

> For LI specifically, the Company is utilizing documentation from MSHDA [the Michigan State Housing Development Authority] that identifies "low-income housing tax credit" award recipients to conduct initial outreach. In addition, the Company is contacting property developers known to be building MUDs to provide rebate information while maintaining relationships with various contractors/electricians who service this customer segment to discuss and market the rebate opportunities (Exhibit MEIU-1.7).

- *Email and eBill Communication*: The Company communicates with prospective fleet and MUD customers via email (Exhibit MEIU-1.3, Exhibit MEIU-1.4) and by reaching out directly to its known business (Exhibit MEIU-1.6) and MUD accounts (Exhibit MEIU-1.5). In addition, it displays rebate and potential savings opportunities that the customer could take advantage of to install EV charging on the customer's eBill (Exhibit MEIU-1.5, Exhibit MEIU-1.6).

Q. How does the Company assess the impact and success of its own E&O efforts?

A. To assess the impact of the Company's E&O efforts, in discovery responses (Exhibit MEIU-1.8, Exhibit MEIU-1.9), DTE indicated that:

> Where possible, the Company reviews the performance of each marketing tactic's engagement against overall Company performance, past EV program[m]ing performance, and/or industry averages. The Company also monitors website traffic volume.

Q. What are drivers most concerned about when adopting an EV for personal use?

A. As discussed previously, it has been well documented that range anxiety and the high upfront costs of vehicles and associated charging equipment are among the primary

concerns for potential EV buyers.[176, 177, 178, 179, 180, 181, 182, 183, 184] Today's typical U.S. vehicle owner drives their personal vehicle 30-50 miles per day, on average.[185, 186] In fact, the five top-selling EV models sold in the U.S. are the Tesla Model Y, Tesla Model 3, Chevrolet

[176] EV Charging Summit, "10 Biggest Challenges Facing the EV Industry Today," January 2023, available at https://evchargingsummit.com/blog/challenges-facing-the-ev-industry-today/.

[177] Bloomberg, "Despite Hurdles, Vehicle Electrification in the US is Likely Here to Stay, finds Bloomberg Intelligence," April 2024, available at https://www.bloomberg.com/company/press/despite-hurdles-vehicleelectrification-in-the-us-is-likely-here-to-stay-finds-bloomberg-intelligence/.

[178] De Prez, M., *Fleet News*, "Kia drives the shift towards EV uptake," April 2019, available at https://www.fleetnews.co.uk/fleet-management/case-studies/industry-profiles/kia-motors-uk.

[179] Tang, R., Blair, M. and Alizamir, S., "Two-Sided Subsidies for Electric Vehicles: The Role of Regional Characteristics," June 2024, available at https://ssrn.com/abstract=4857253.

[180] Southern California Edison Company, Application of Southern California Edison Company (U338E) for Approval of its Charge Ready 2 Infrastructure and Market Education Programs," Application 18-06-015, September 2020, available at https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M346/K230/346230115.PDF.

[181] Illinois Commonwealth Edison, "ComEd Beneficial Electrification Plan," 2022, available at https://icc.illinois.gov/docket/P2022-0432/documents/325766/files/567114.pdf.

[182] Massachusetts Electric Company and Nantucket Electric Company each D/B/A National Grid, Direct Pre-Filed Testimony of the Electric Vehicle Program Panel," Exhibit NG-EVPP-1, July 2021, available at https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/13758106.

[183] Minnesota Xcel Energy, Petition of Northern States Power Company for Approval of a Public Charging Network, an Electric School Bus Pilot, and Program Modifications," 2022, available at https://www.edockets.state.mn.us/edockets/searchDocuments.do?method=showPoup&documentId={90B25F820000-C32B-B70E-1C25A3E2A491}&documentTitle=20228-188061-07.

[184] Consolidated Edison Company of New York, Inc., Electric Vehicle Infrastructure Make-Ready Program Implementation Plan," Case 18-E-0138, September 2020, available at https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7b181AB1C0-0F11-44F6-B6525705D91EC1B3%7d.

[185] AAA: Foundation for Traffic Safety, "Driver Behavior & Performance Research Brief, American Driving Survey: 2023," August 2024, available at https://aaafoundation.org/wp-content/uploads/2024/08/202408-AAAFTS-American-Driving-Survey-2023.pdf.

[186] U.S. Department of Energy, "FOTW #1332, March 4, 2024: Daily Vehicle Miles Traveled Varies with the Number of Household Vehicles," March 2024, available at https://www.energy.gov/eere/vehicles/articles/fotw-1332-march-4-2024-daily-vehicle-miles-traveled-varies-number-household.

EV Equinox, Ford Mustang Mach-e, and Hyundai Ioniq 5,[187, 188] which advertise ranges between 318-363 miles.[189] This suggests that the most popular EV models currently on the market would easily meet the daily needs of most U.S. drivers. Bearing that in mind, EV drivers still often need to plan ahead for longer road trips, such as from Lansing to the Upper Peninsula. This is largely driven by lack of wide-spread charger availability in rural areas and en route to popular tourist destinations. As such, while today's EVs can easily meet daily driving needs, it is still vital that the state and utilities continue to support the deployment of public charging infrastructure for these use cases.

Despite the clear need for more charging infrastructure, range anxiety in some cases is also driven by unawareness regarding existing EV charging infrastructure. Unlike gas stations, which are often large, recognizable, and well-advertised, most drivers do not know where to find nearby charging. This can be true of charging in their local area, but it becomes even more worrisome on longer road trips, where the driver may also be contending with anxiety navigating an unfamiliar area. Today, however, many EV models have built-in navigation systems that help drivers identify nearby charging that is available, operational

[187] Atlas Public Policy, "EV Market Dashboard," July 2025, available at https://www.atlasevhub.com/market-data/ev-market-dashboard/.

[188] Miller, C., *Car and Driver*, "The 10 Bestselling EVs of 2025 (So Far)," July 2025, available at https://www.caranddriver.com/news/g64540955/bestselling-evs-2025/.

[189] Clarke, W., *U.S. News & World Report*, "Electric Cars With the Longest Range," April 2025, available at https://cars.usnews.com/cars-trucks/advice/electric-cars-with-the-longest-range?onepage.

with the appropriate charging port, and functioning properly.[190, 191, 192] Additionally, Michigan's first NEVI-supported charging site came online in December 2024, with dozens more sites set to be operational by the end of 2025.[193] The availability of the state's NEVI-supported stations, coupled with the continued deployment of CFCI funding and utility rebates, will improve the visibility of new and existing charging opportunities throughout the state, instilling greater confidence that drivers would be adequately supported if they purchase an EV. Despite improved accessibility to EV charging, however, enabling behavioral change requires improved information sharing, proactive engagement, and patience.

Q. What are business owners and fleet operators most concerned about when adopting an EV for commercial use?

A. Business owners and fleet operators face similar dilemmas to drivers purchasing vehicles for personal use, including range anxiety. But like personal vehicles, many fleet vehicles are also already more than capable of handling the load and mileage demands of most local and regional fleets. Depending on the vehicle type and use case, fleet vehicles typically

[190] Ford Motor Company, "How do I use Connected Navigation EV Routing with my Ford vehicle?," accessed July 2025, available at https://www.ford.com/support/how-tos/electric-vehicles/other-electric-vehicle-information/how-do-i-use-connected-navigation-ev-routing-with-my-all-electric-ford/.

[191] Ganz, A., Kelley Blue Book, "EV Charging Stations: Everything You Need To Know," December 2022, available at https://www.kbb.com/car-advice/ev-charging-stations/.

[192] GM News, "GM Energy makes your General Motors EV a revolutionary energy asset," February 2025, available at https://news.gm.com/home.detail.html/Pages/topic/us/en/2025/feb/0203-gmenergy.html#:~:text=And%20we've%20made%20it,session%20right%20from%20your%20smartphone.

[193] Michigan Department of Transportation, "MDOT announces first fast charging station under NEVI program live in Lansing," December 2024, available at https://www.michigan.gov/mdot/news-outreach/pressreleases/2024/12/11/mdot-announces-first-fast-charging-station-under-nevi-program-live-in-lansing.

travel 42-100 miles per day, on average.[194] While average daily use is higher than the passenger use case, a fleet of LD EVs would still be capable of meeting this daily demand. The same is true for most MHD EVs, which can have reported ranges of 155-280 miles.[195, 196] To date, some of the largest entities, by employment, in Michigan, including the state government,[197] Walmart,[198, 199, 200] and Amazon,[201] all have plans to electrify their fleets.[202]

Where the experience transitioning to EVs for fleet applications begins to diverge from that of personal-use applications is in their procurement and energization timelines. Because manufacturers typically prioritize bulk orders, small businesses or local fleets that

[194] U.S. Department of Energy, Alternative Fuels Data Center, "Average Annual Vehicle Miles Traveled by Vehicle Type," September 2024, available at https://afdc.energy.gov/data/10309.

[195] Freightliner, "Freightliner eCascadia Specs," accessed July 2025, available at https://www.freightliner.com/trucks/ecascadia/specifications/#tab-5.

[196] Volvo Trucks, "Volvo FL Electric," accessed July 2025, available at https://www.volvotrucks.com/en-en/trucks/electric/volvo-fl-electric.html.

[197] Executive Office of the Governor, "Executive Directive 2023-5: Conversion of State Fleet," December 2023, available at https://www.michigan.gov/whitmer/news/state-orders-anddirectives/2023/12/05/executive-directive-2023-5-conversion-of-state-fleet.

[198] Walmart, "Leading the Charge: Walmart Announces Plan To Expand Electric Vehicle Charging Network," April 2023, available at https://corporate.walmart.com/news/2023/04/06/leading-the-charge-walmartannounces-plan-to-expand-electric-vehicle-charging-network.

[199] Walmart, "Walmart deploys Chevrolet BrightDrop vans for InHome delivery service," October 2024, available at https://news.gm.com/home.detail.html/Pages/news/us/en/2024/oct/1031-brightdrop.html.

[200] Walmart, "Zero Sum: How Walmart Transportation is Working to Reduce Emissions Now and in the Future," June 2022, available at https://corporate.walmart.com/news/2022/06/08/zero-sum-how-walmart-transportation-is-working-to-reduce-emissions-now-and-in-the-future.

[201] Amazon, "Everything you need to know about Amazon's electric delivery vans from Rivian," November 2024, available at https://www.aboutamazon.com/news/transportation/everything-you-need-to-know-aboutamazons-electric-delivery-vans-from-Rivian.

[202] Energy Power Research Institute, Inc., "GridREADY: Preparing for EV Loads at Scale through Improved Planning, Prioritization, and Proactiveness," February 2025, available at https://epri.app.box.com/folder/311418861347.

may only have the capital to electrify a few vehicles are often left with longer lead times,[203, 204] especially for MHD EVs. The timeline to procure an EV depends on the type of vehicle and the number of vehicles being purchased, but this can take up to 12 months for a MHD vehicle.[205]

Comparatively, the distribution system upgrades required to support EV load at fleet depots can take anywhere from 24-72 months.[206, 207, 208] The marked imbalance between these timelines suggests that without strategic coordination, fleet operators transitioning to EVs risk being unable to utilize an asset critical to running their business for several months, or even years. Many fleet operators today point to this mismatch in timing and the significant investment required to explain their hesitation in transitioning to EVs.[209] To date, the Commission has not put energization timelines in place that would require the state's utilities to energize charging infrastructure projects within a defined, reasonable period of

[203] Sciammacco, S., Ceres, "Major companies with large fleets release new electric vehicle 'blueprint' for car and truck manufacturers," January 2022, available at https://www.ceres.org/resources/news/major-companies-with-large-fleets-release-new-electric-vehicle-blueprint-for-car-and-truck-manufacturers.

[204] O'Kane, S., "Rivian will start selling electric vans to non-Amazon companies in 2023," *The Verge*, November 2021, available at https://www.theverge.com/2021/11/8/22765853/rivian-fleet-sales-amazon-exclusivity-van-r1t-r1s.

[205] Energy Power Research Institute, Inc., "GridREADY: Preparing for EV Loads at Scale through Improved Planning, Prioritization, and Proactiveness," February 2025, available at https://epri.app.box.com/folder/311418861347.

[206] *Ibid.*

[207] Cadmus and energetics, California Public Utilities Commission, "Evaluation Report for 2023 Standard Review Projects & AB 1082/1083 Pilots," September 2024, available at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/sb-350-te/cadmus-energetics-2023-evaluation-presentation_2023.pdf.

[208] Electric Power Research Institute, Inc., "Reindustrialization, Decarbonization, and Prospects for Demand Growth," July 2023, available at https://www.epri.com/research/products/000000003002027930.

[209] Energy Power Research Institute, Inc., "GridREADY: Preparing for EV Loads at Scale through Improved Planning, Prioritization, and Proactiveness," February 2025, available at https://epri.app.box.com/folder/311418861347.

time. This reinforces the uncertainty that large C&I customers weighing fleet electrification face, which could further delay the realization of the benefits to ratepayers and the grid noted above.

Q. How could DTE improve its outreach efforts to fleet customers in order to attempt to address some of these concerns?

A. Alongside establishing reasonable energization timelines to ensure fleet customers feel more comfortable making these larger investments, utilities can also undertake more proactive engagement with these customers. By doing so, the state's utilities would be armed with greater awareness of the areas where anticipated load growth is expected to require significant grid upgrades. Better communication with existing and prospective EV fleet customers about their business needs could also inform utilities about how they can improve their existing rebate programs to more effectively and efficiently educate and reach out to these customers. Consequently, knowledge of expected future upgrade requirements would not only allow the state's utilities to appropriately prioritize investments and enable utilities to adapt to emerging trends; it would also ensure that the

predicted benefits of increased EV adoption actually accrue and increase the impact of utility programs over time.[210, 211, 212, 213, 214, 215, 216]

Q. What are MUD property managers most concerned about when installing EV charging for their tenants?

A. MUD property owners interested in installing electric vehicle supply equipment ("EVSE") face several dilemmas. Like drivers purchasing an EV for personal use and fleet operators, knowing where to look and whom to ask for resources (*e.g.*, information about choosing the right chargers for the tenants' needs, understanding the building's electrical capacity, deciding between business models, etc.) can be a daunting task for MUD property owners.

[210] Energy Power Research Institute, Inc., "GridREADY: Preparing for EV Loads at Scale through Improved Planning, Prioritization, and Proactiveness," February 2025, available at https://epri.app.box.com/folder/311418861347.

[211] Alliance for Transportation Electrification and Plug In America, *The Missing Piece on Meeting Transportation Electrification Goals: Utility Education and Outreach Programs*, December 2020, available at https://evtransportationalliance.org/wp-content/uploads/2021/11/2020-Education-Outreach-White-Paper.pdf.

[212] Frost, J. et al., Synapse Energy Economic, Inc. "Electric Vehicles Are Driving Electric Rates Down," June 2020, available at https://www.synapse-energy.com/sites/default/files/EV_Impacts_June_2020_18-122.pdf.

[213] Shenstone-Harris, S. et al., Synapse Energy Economics, Inc., "Electric Vehicles are Driving Rates Down for All Customers, State Factsheet: Illinois," April 2024, available at https://www.synapse-energy.com/sites/default/files/Electric%20Vehicles%20Are%20Driving%20Rates%20Down%20for%20All%20Customer%20Illinois%20May%202024.pdf.

[214] Shenstone-Harris, S. et al., Synapse Energy Economics, Inc., "Electric Vehicles are Driving Rates Down for All Customers, State Factsheet: Virginia," April 2024, available at https://www.synapse-energy.com/sites/default/files/Electric%20Vehicles%20Are%20Driving%20Rates%20Down%20for%20All%20Customer%20Virginia%20May%202024%2024-023.pdf.

[215] Shenstone-Harris, S. et al., Synapse Energy Economics, Inc., "Electric Vehicles are Driving Rates Down for All Customers, State Factsheet: Colorado," April 2024, available at https://www.synapseenergy.com/sites/default/files/Electric%20Vehicles%20Are%20Driving%20Rates%20Down%20for%20All%20Cus tomer%20Colorado%20May%202024.pdf.

[216] Shenstone-Harris, S. et al., Synapse Energy Economics, Inc., "Electric Vehicles are Driving Rates Down for All Customers, State Factsheet: New Jersey," April 2024, available at https://www.synapseenergy.com/sites/default/files/Electric%20Vehicles%20Are%20Driving%20Rates%20Down%20for%20All%20Cus tomer%20New%20Jersey%20April%202024.pdf.

In addition, depending on the property type, age of the building, and type of EV charger(s) being considered, EV charging installations at MUDs are more complex and more expensive than SFH applications.

According to a study by the Michigan State Housing Development Authority ("MSHDA"), 30% of the total construction permits issued in 2022 were for MUD structures.[217] Building new properties to be EV-ready can greatly lower the life-cycle costs for future charger installations.[218] Installation and equipment costs for existing structures, however, represent significant obstacles to property owners looking to provide EVSE to their residents. While commercial-grade L2 charging stations can typically cost between $1,000 to $2,000 per charging port, the total installation cost can often range between $5,000 to $10,000 due to variables like equipment costs, labor costs, network costs, permitting fees, and costs from electrical system and utility-side grid upgrades.[219] These challenges are exacerbated in older properties. Depending on the age of the property, retrofitting MUD buildings to make necessary electrical infrastructure upgrades and install EV chargers can cost property

[217] Belhaj, M. et al., Michigan State Housing Development Authority, "Michigan Statewide Housing Needs Assessment," 2024, available at https://www.urbanh3.com/_files/ugd/9d463d_02fdfe4f619f4adf885a96677c710479.pdf.

[218] Dunsky Energy and Climate Advisors, "Futureproofing Multifamily Buildings for EV Charging," 2024, available at https://media.fcm.ca/sites/GMF/resources/Report/futureproofing-multifamilybuildings-for-ev-charging.pdf.

[219] Smart Columbus, "Smart Columbus Kickstarts EV Charging Deployments at Multi-Unit Dwellings: Case Study on Multi-Unit Dwelling Charging Infrastructure," 2018, available at https://d2rfd3nxvhnf29.cloudfront.net/legacy/uploadedfiles/playbook-assets/electric-vehicle-charging/mud-case-study-final.pdf.

owners at least $7,000 per charger.[220, 221] These costs can be daunting for any property owner. Given that nearly half of all of Michigan's housing was built before 1970 and that older housing stock is concentrated in LI communities,[222] however, they can represent steep hurdles to overcome. Property owners with limited budgets are thus often faced with the decision to upgrade an entire parking area at one time, upgrade small sections of parking over time, or abandon the project altogether. The appropriate type of charger(s) and EV charging layout also often depends on how the building's units are metered and, assuming parking is available, how spaces are assigned.[223]

MUD property managers also often fail to recognize EV charging as an amenity to residents, especially if they are unaware of financial incentives and demand trends.[224] Given the financial and logistical challenges that MUD property managers face, targeted E&O for this customer segment is critical.[225]

[220] California Air Resources Board, "EV Charging Infrastructure: Nonresidential Building Standards," November 2019, available at https://ww2.arb.ca.gov/sites/default/files/2020-08/CARB_Technical_Analysis_EV_Charging_Nonresidential_CALGreen_2019_2020_Intervening_Code.pdf.

[221] Baker, S., "EV Chargers in CRE: Cost and Installation," *CRE Insight Journal*, October 2024, available at https://creinsightjournal.com/ev-chargers-in-cre-cost-and-installation/.

[222] Allen, D., Michigan State Housing Development Authority, "Michigan Statewide Housing Needs Assessment," April 2019, available at https://www.michigan.gov/-/media/Project/Websites/mshda/ developers/Statewide-Housing-Plan/MSHDAStatewideHousingNeedsweb.pdf?rev=91271d4107a14f0695c929d9399044f4.

[223] Joint Office of Energy and Transportation, "Electric Vehicle Charging Solutions for Multifamily Housing: Market Scan," April 2023, available at https://driveelectric.gov/files/webinar-2023-04-25community-charging-market-scan.pdf.

[224] Berkeley Law: Center for Law, Energy, and the Environment, University of California, Berkeley, "Policy Strategies to Promote Equitable EV Charging Access for Multi-Family Housing Residents," August 2024, available at https://www.law.berkeley.edu/wp-content/uploads/2024/08/EV-Charging-Access-for-Multifamily-Housing-Residents-CLEE-Report.pdf.

[225] *Ibid.*

Q. Are customers generally aware of the EV and EV charging programs being offered by their local utility or by government entities?

A. In a July 2019 report, Consumer Reports and the Union of Concerned Scientists found that 78% of survey respondents nationwide did not know about the available EV or EV charging rebate programs offered by their local units of government, state government, or local utilities.[226, 227] Under-application to incentive programs managed by utilities or public entities is often interpreted as disinterest and therefore cited as justification for discontinued support for these programs. However, the findings of this report highlight the critical difference between disinterest and lack of awareness. Customers cannot apply for programs that they do not know exist. Moreover, it is unlikely that a customer will transition to an EV if they do not understand the benefits of EVs, how an EV can fit into their lives without disruption, and what rebate or other support programs exist.

Q. What role do utilities play in educating customers and other relevant entities about transitioning to EVs?

A. As important mechanisms to ensure the efficient use of existing utility assets and enable proactive utility planning, utility E&O programs are essential to unlocking the benefits that EVs have to offer to all customers and the grid. As experts in local grid capacity and as managers of EV charging rebate programs, utilities are ideal conduits for information about

[226] Union of Concerned Scientists, "Surveying Consumers on Electric Vehicles," July 2019, available at https://www.ucs.org/resources/surveying-consumers-electric-vehicles.

[227] Alliance for Transportation Electrification and Plug In America, *The Missing Piece on Meeting Transportation Electrification Goals: Utility Education and Outreach Programs*, December 2020, available at https://evtransportationalliance.org/wp-content/uploads/2021/11/2020-Education-Outreach-White-Paper.pdf.

the benefits of EVs and what customers would need to comfortably transition to an EV for personal or commercial purposes.[228] For example, utilities can educate customers about how EVs can meet their existing personal and commercial needs, what the appropriate charging infrastructure is to support the EV such that it fulfills their needs, what federal, state, and utility incentives are available to them, and how to take advantage of TOU rates or participate in managed charging programs. This information can be useful not only to new and prospective EV drivers but also to other entities that serve as trusted advisors to the local community, such as automotive dealerships, state and local units of government, and community associations. This creates a network effect, wherein these educated community partners can then disseminate accurate information to residents and business owners and connect them directly to the appropriate utility.

Q. What are E&O best practices?

A. In a 2020 report, the Alliance for Transportation Electrification and Plug In America identified several best practices that utilities can put in place to improve residential and commercial customer engagement with utility EV programs and encourage EV adoption.[229] These efforts include:

[228] *Ibid.*

[229] Alliance for Transportation Electrification and Plug In America, *The Missing Piece on Meeting Transportation Electrification Goals: Utility Education and Outreach Programs*, December 2020, available at https://evtransportationalliance.org/wp-content/uploads/2021/11/2020-Education-Outreach-White-Paper.pdf.

- *Ride and drives*: Studies show that 67% of 'ride and drive' participants did additional research on EVs after the event, and 25% actually purchased an EV.[230, 231] A 2022 study from the Ohio State University also found that test drives can impact how drivers think about themselves, which links to an increased intention to buy an EV.[232]
- *Dealer partnerships*: While online vehicle purchases are becoming more common,[233] 93% of customers feel that test drives and dealership engagement remain important steps in considering the purchase of an EV.[234] Enacted in 2019, Michigan Public Act 668 prohibits manufacturers from selling vehicles direct to a consumer other than through a franchised dealer.[235] While the state reached a settlement with Tesla in 2020, allowing Tesla to sell vehicles through a subsidiary, it is clear that dealers play a critical role in Michigan customers' vehicle purchasing experiences.[236] Utilities can establish dealer partnerships and work with dealers on events, like 'ride and drives.' They can

[230] *Ibid.*

[231] Sharda, S. et al., National Renewable Energy Laboratories, "The electric vehicles-solar photovoltaics Nexus: Driving cross-sectoral adoption of sustainable technologies," *Renewable and Sustainable Energy Review*, March 2024, available at https://www.sciencedirect.com/science/article/abs/pii/S1364032123010304?dgcid=author.

[232] Herzinger, A. and Sintov, N., "Give it a Try! How electric vehicle test drives influence symbolism perceptions and adoption intent," *Journal of Environmental Psychology*, February 2023, available at https://www.sciencedirect.com/science/article/abs/pii/S0272494422001529.

[233] Hickey, J., "Digital Retailing Continues to Grow at Auto Dealerships," Digital Dealer, November 2023, available at https://digitaldealer.com/data-analytics/digital-retailing-continues-to-grow-at-autodealerships/.

[234] Electrification Coalition, "EVs and Consumer Choice," accessed August 2025, available at https://electrificationcoalition.org/work/state-ev-policy/evs-and-consumer-choice/#:~:text=93%20percent%20of%20customers%20polled,the%20full%20car%20purchasing%20experience.

[235] Michigan Legislature, "Public Act 668," March 2019, available at https://www.legislature.mi.gov/documents/2017-2018/publicact/pdf/2018-PA-0668.pdf.

[236] Reuters, "Michigan, Tesla settle suit over direct vehicle sales," January 2020, available at https://www.reuters.com/article/technology/michigan-tesla-settle-suit-over-direct-vehicle-sales-idUSKBN1ZL2HA/.

also establish training programs to ensure dealers are educated on utility programs and communicating the most accurate information.

- *Innovative partnerships*: Developing relationships with local partners that serve as trusted community pillars and regularly engage with customers in their daily activities, such as local chambers of commerce, schools, and churches, can be an effective way to reach new customers. Partnerships with other businesses, like ride-share services, rental companies, and automotive manufacturers have also proven effective in improving EV awareness and adoption.[237, 238]
- *Leverage data:* Utilities can also leverage geographic information systems, demographics, and EV adoption data to inform the development of more targeted outreach strategies.[239] For example, if a utility has specific targets aimed at enabling build-out of EV charging infrastructure in LI communities, it can consider available grid capacity in specific communities that meet these criteria to identify prospective fleet, MUD, or workplace and retail customers who would more easily engage in their program.[240] Additionally, utilities could consider whether a property has applied to or

[237] Alliance for Transportation Electrification and Plug In America, *The Missing Piece on Meeting Transportation Electrification Goals: Utility Education and Outreach Programs*, December 2020, available at https://evtransportationalliance.org/wp-content/uploads/2021/11/2020-Education-Outreach-White-Paper.pdf.

[238] Walton, R., "How utilities are partnering with GM, BMW, Lyft and others in the auto sector to accelerate EV adoption," *UtilityDive*, September 2023, available at https://www.utilitydive.com/news/utilities-are-partnering-with-auto-companies-gm-bmw-lyft-ford/652698/.

[239] Berkeley Law: Center for Law, Energy, and the Environment, University of California, Berkeley, "Policy Strategies to Promote Equitable EV Charging Access for Multi-Family Housing Residents," August 2024, available at https://www.law.berkeley.edu/wp-content/uploads/2024/08/EV-Charging-Access-for-Multifamily-Housing-Residents-CLEE-Report.pdf.

[240] *Ibid.*

been awarded a relevant grant, or even how many EVs are in a local neighborhood, to improve the likelihood of customer engagement.

Q. What are E&O best practices for fleet customers?

A. While many of these same strategies can apply to fleets, there are also several approaches that apply more specifically to fleets. A 2024 EPRI report found that customer participation in EV fleet programs often depends on the size of the utility, the scale of the marketing, education, and outreach efforts, and the budget for the fleet advisory services program.[241] The report details several impactful strategies, including:[242]

- Targeting outreach to known fleets eligible for federal, state, and local incentive programs;
- Leveraging the relationship between fleet operators and utility account managers;
- Hosting regular EV-focused webinars with targeted information to customers in the utility's service territory; and
- Hosting regular calls with installers and electricians to educate and update them on the fleet advisory services program, and other relevant incentive programs.

As described above, it is also important that utilities clearly communicate energization timelines and costs to fleet customers so they can feel comfortable making these large investments and effectively plan business operations.

[241] Electric Power Research Institute, Inc., "Fleet Advisory Services: 101 and Best Practices," October 2024, available at https://www.epri.com/research/programs/053122/results/3002030500.

[242] *Ibid.*

Dealers also play a critical role in the purchasing process and experience for fleets. It is clear that education should be a multi-pronged approach, focused not only on the customer considering transitioning to EVs, but on other key partners that serve as touchpoints for customers.[243] Fostering these critical partnerships therefore facilitates a network of informed partners that share complementary information with customers and each other, thus expanding the reach of the utility's efforts.

Q. Are there other utilities executing these best practices?

Yes. In 2019, when EVs were still a relatively small part of the national vehicle market, the Sacramento Municipal Utility District worked with Plug In America's PlugStar Program to establish a dealership training program and customer engagement effort. The program ultimately trained 13 dealerships in the local area, which the utility district found resulted in 2,535 website visitors and 255 EVs sold in six months.[244]

A 2023 report evaluating 14 of the MHD EV, public charging and V2G pilot programs managed by four California utilities also highlighted the impact of E&O on customer engagement and application quality.[245] SCE and PG&E, for example, reported successes

[243] Smart Electric Power Alliance, "Switching lanes: How utilities can encourage EV adoption through customer-centric programs," April 2019, available at https://sepapower.org/knowledge/switching-lanes-how-utilities-can-encourage-ev-adoption-through-customer-centric-programs/.

[244] Smart Electric Power Alliance, "Switching lanes: How utilities can encourage EV adoption through customer-centric programs," April 2019, available at https://sepapower.org/knowledge/switching-lanes-how-utilities-can-encourage-ev-adoption-through-customer-centric-programs/.

[245] Cadmus Group and Energetics Incorporated, "Standard Review Projects and AB 1082/1083 Pilots, Evaluation Year 2022: Third-Party Evaluation Report," October 2023, available at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/sb-350-te/publicjoint-iou-annual-srp-and-ab108283-evaluation-report-for-py-2022.pdf.

with their fleet advisory services. In addition to the dissemination of traditional fact sheets and emails, SCE hosted webinars, provided grant writing and review assistance, and offered one-on-one EV readiness reviews with fleet operators to educate potential fleet customers.[246] In a survey of fleet operators that participated in the one-on-one consulting services, 75% indicated that they were "highly satisfied" with the program communication.[247] Similarly, PG&E found that nearly 70% of their surveyed fleet operators were contacted directly by PG&E onboarding specialists, and of them 100% were "very satisfied" with their experience. [248] Prior to engagement with the utilities' fleet advisory services, most fleet operators participating in the program indicated that they had never been educated on TOU rates or their historical usage trends.[249] One-on-one engagement with the onboarding specialists and electric vehicle service providers ("EVSPs"), however, improved awareness of these efforts, resulting in 30-40% of charging occurring during off-peak hours and ensuring that peak daily demand remained below 20% of total available capacity.[250] In fact, due to the success of its onboarding specialist program, PG&E also reported that it planned to expand the program in the following year.[251]

[246] Cadmus Group and Energetics Incorporated, "Standard Review Projects and AB 1082/1083 Pilots, Evaluation Year 2022: Third-Party Evaluation Report," October 2023, available at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/sb-350-te/publicjoint-iou-annual-srp-and-ab108283-evaluation-report-for-py-2022.pdf.

[247] *Ibid.*

[248] *Ibid.*

[249] *Ibid.*

[250] *Ibid.*

[251] *Ibid.*

In addition to its fleet efforts, PG&E also developed a targeted outreach approach to engage with MUD properties, where a dedicated research team used a mapping tool to find properties that might be more likely to agree to participate.[252] The mapping tool overlaid demographic data with local grid capacity, and identified buildings that were either EV-capable or EV-ready[253] to help inform which properties would face fewer logistical barriers to installing EV charging.[254]

Utilities may also choose to partner with third-party entities to manage their outreach programs. For example, in 2017, as part of its "Smart Columbus" initiative, the City of Columbus contracted with Clean Fuels Ohio to initiate and lead outreach to local building managers about charging infrastructure, as well as to conduct charging inspections, manage the rebate funds, and report program learnings over the course of three years.[255, 256] The

[252] Berkeley Law: Center for Law, Energy, and the Environment, University of California, Berkeley, "Policy Strategies to Promote Equitable EV Charging Access for Multi-Family Housing Residents," August 2024, available at https://www.law.berkeley.edu/wp-content/uploads/2024/08/EV-Charging-Access-for-Multifamily-Housing-Residents-CLEE-Report.pdf.

[253] EV-capable parking spaces have the wiring and conduits in place for EV charging, but do not have any dedicated circuits or EVSE installed. The infrastructure would, however, accommodate the installation of an EV charger in the future. In addition to wiring and conduits, EV-ready parking spaces include the installation of circuits, panel capacity, receptacles, and overprotection devices. They can immediately receive an EV charger if and when needed. *See* Blink Charging Company, "How EV Charging Building Codes Help Future-Proof New Developments," February 2023, available at https://blinkcharging.com/blog/how-ev-charging-building-codeshelp-future-proof-new-developments.

[254] Berkeley Law: Center for Law, Energy, and the Environment, University of California, Berkeley, "Policy Strategies to Promote Equitable EV Charging Access for Multi-Family Housing Residents," August 2024, available at https://www.law.berkeley.edu/wp-content/uploads/2024/08/EV-Charging-Access-for-Multifamily-Housing-Residents-CLEE-Report.pdf.

[255] *Ibid.*

[256] Atlas Public Policy, "Smart Columbus Case Study: Charging at Multi-Unit Dwellings," June 2018, available at https://d2rfd3nxvhnf29.cloudfront.net/legacy/uploadedfiles/playbook-assets/electric-vehicle-charging/mud-case-study-final.pdf.

first round of the program resulted in 48 approved L2 charging ports across 11 sites, which encouraged the City to continue its efforts and open up two additional funding rounds over the program's three-year period.[257]

Commonwealth Edison ("ComEd") in Illinois has also taken a more holistic approach to customer E&O. In July 2024, ComEd announced a partnership with Walker-Miller Energy Services and ICF International, Inc. to support the launch and implementation of the utility's Beneficial Electrification ("BE") programs, totaling $231 million.[258, 259] This includes the design and management of its Business and Public Sector Make-Ready Rebate Program,[260, 261] Business and Public Sector Electric Vehicle Rebate Program,[262, 263] and EV Charger and Installation Rebate Program.[264] In addition to the management of its rebate

[257] *Ibid.*

[258] PR Newswire, "ICF Selected for ComEd Beneficial Electrification Program," July 2024, available at https://www.prnewswire.com/news-releases/icf-selected-for-comed-beneficial-electrification-program-302199700.html.

[259] Commonwealth Edison, "Clean Energy," accessed July 2025, available at https://www.comed.com/about-us/clean-energy?utm_source=VanityURL&utm_medium=Clean&utm_campaign=CleanVanityURL.

[260] Commonwealth Edison, "Business and Public Sector Make-Ready Rebate Program," accessed July 2025, available at https://www.comed.com/about-us/clean-energy/make-ready-rebate-program.

[261] Commonwealth Edison, "Business and Public Sector Make-Ready Rebate Program Terms and Conditions," April 2025, available at https://visionelements.programprocessing.com/framework/Commonwealth_Edison/ComEd_Business_and_Public_Sector_MakeReadyProgram_Terms_Conditions.pdf.

[262] Commonwealth Edison, "Business and Public Sector Electric Vehicle Rebate Program," accessed July 2025, available at https://www.comed.com/about-us/clean-energy/electric-vehicle-rebate-program.

[263] Commonwealth Edison, "Business and Public Sector Electric Vehicle Rebate Program Terms and Conditions," April 2025, available at https://visionelements.programprocessing.com/framework/Commonwealth_Edison/ComEd_Business_and_Public_Sector_MakeReadyProgram_Terms_Conditions.pdf.

[264] Commonwealth Edison, "EV Charger and Installation Rebate Program Terms and Conditions," April 2025, available at

programs, the third-party providers are also leading the implementation of the ComEd EVSP Network, the EV Ambassador program, and the EV Dealership Network, as described below:

- *ComEd EVSP Network:* The ComEd EVSP Network launched in August 2024 and is designed to connect residential and commercial customers to certified service providers in the network, who then support the customers as they transition to EVs in their home or business.[265, 266] At the time of its launch, nearly 50 vendors were participating in the network. EVSPs participating in the network are onboarded during regularly scheduled trainings, wherein they are provided information about ComEd's rebate programs, as well as access to essential tools and documents. ComEd also hosts network roundtable discussions to address issues and work on solutions for challenges that EVSPs identify in the field.
- *ComEd EV Ambassador Program:* In May 2025, ComEd launched its EV Ambassador Program, a partnership with three local partner organizations that will expand education and raise awareness around EV adoption and the benefits in northern Illinois.[267] The Ambassadors went through a rigorous selection process and were awarded a small

https://visionelements.programprocessing.com/framework/Commonwealth_Edison/ComEd_Residential_EV_Charging_Program_Terms_Conditions.pdf.

[265] BusinessWire, "ComEd Creates List of Certified EV Charging Installers to Help Customers Grow Personal Charging Networks," August 2024, available at https://www.businesswire.com/news/home/20240827883573/en/ComEd-Creates-List-of-Certified-EV-Charging-Installers-to-Help-Customers-Grow-Personal-Charging-Networks.

[266] Commonwealth Edison, "ComEd EV Service Provider Network Portal," Accessed July 2025, available at https://comedevspnetwork.com/.

[267] BusinessWire, "ComEd Launches EV Ambassador Program to Expand EV Adoption in Northern Illinois," May 2025, available at https://www.businesswire.com/news/home/20250527127177/en/ComEd-Launches-EV-Ambassador-Program-to-Expand-EV-Adoption-in-Northern-Illinois.

stipend for their leadership in connecting community members and businesses with ComEd's rebate programs, EV Dealership network, EV Toolkit, and other resources.[268] Ambassadors help coordinate and attend "ride and drives," and lead roundtable events with key stakeholders, such as dealers, installers, property developers, and mayoral committees.[269]

- *ComEd Dealership Network:* The ComEd Dealership Network, launched in October 2024, awards instant discounts to qualifying business and public sector customers for the purchase of qualifying EV fleet vehicles.[270] Rebates range from $5,000-$180,000 depending on the vehicle type at the time of purchase, and to be eligible, the fleet operator must purchase the vehicle(s) through one of the approved dealerships or manufacturers.[271] As of October 2024, 30 dealerships were participating in the program.[272, 273] Participating dealers go through program training and have access to a comprehensive Dealer Portal, which provides information and resources about the program and other ComEd programs.[274] This model also drives more business to

[268] *Ibid.*

[269] *Ibid.*

[270] BusinessWire, "ComEd Announces New Initiative to Award Instant Discounts for Electric Fleet Vehicles in Northern Illinois," October 2024, available at https://www.businesswire.com/news/home/20241003564166/en/ComEd-Announces-New-Initiative-to-Award-Instant-Discounts-for-Electric-Fleet-Vehicles-in-Northern-Illinois.

[271] *Ibid.*

[272] *Ibid.*

[273] Commonwealth Edison, "ComEd Business & Public Sector EV Program Participating Dealer List," October 2024, available at https://energycenter.org/sites/default/files/salesforce/comed/Eligible_Dealer_List.pdf.

[274] BusinessWire, "ComEd Announces New Initiative to Award Instant Discounts for Electric Fleet Vehicles in Northern Illinois," October 2024, available at https://www.businesswire.com/news/home/20241003564166/en/ComEd-Announces-New-Initiative-to-Award-Instant-Discounts-for-Electric-Fleet-Vehicles-in-Northern-Illinois.

specific dealers, thus encouraging dealership engagement and improving awareness of ComEd's programs across a key community partner.

Q. Based on your review of best practices and other utilities' E&O programs, is DTE following these best practices?

A. In part. DTE has exhibited a strong commitment to the enhancement of its EV programs and the education of its customers to enable increased EV adoption in its service territory. In my limited view of the Company's outreach practices, however, a majority of the efforts appear to be passive. It is clear from the best practices and examples described above that targeted, proactive outreach approaches often improve the conversion success rate and enable businesses to optimize spending.[275] Subsequently, a regular review of active programs also allows utilities to gain deeper insight about how to improve their outreach in the future. As such, the Company would likely see improvement in its customer engagement and participation in its programs if it implemented a variety of proactive E&O strategies.

Q. What opportunities exist to improve the Company's E&O programs?

A. The Company could explore a variety of enhancements to its existing E&O programs including, but not limited to the following:

- *MUD Rebate Program*: The Company notes that it is considering expanding its Advisory Services to include MUD customers, similar to its eFleet Advisory

[275] Farris, P. et al., "Marketing return on investment: Seeking clarity for concept and measurement," *Applied Marketing Analytics*, Vol. 1:3, 2015, available at https://www.ingentaconnect.com/content/hsp/ama/2015/00000001/00000003/art00010.

Services.[276] In addition, in a discovery response, the Company highlights collaboration with several partners to identify prospective MUD applicants in LI communities by targeting applicants that have received "low-income housing tax credit" awards (Exhibit MEIU-1.7). Using a tool similar to that developed by PG&E, DTE could identify prospective LI and non-LI MUD customers more likely to participate in the program by evaluating the available grid capacity, the age of the existing building, and whether it is already EV-capable or EV-ready.[277] This would enable the Company to more effectively target and engage more proactively with a wider variety of MUD properties, while also maintaining efficient communication. Additionally, the company should reconnect with customers who participate in the MUD Rebate Program quarterly to address customer questions and challenges. The Company should also provide this feedback, along with its learnings and resulting proposed programmatic changes, in its TEP to create an opportunity for stakeholder feedback.

- *eFleet Advisory Services*: The eFleet Advisory Services represents one of the greatest enhancement opportunities for the Company to undertake. Business account managers can serve as critical points of connection between the eFleet Advisory Services team and the business. Given the account manager's existing relationship with the customer, they could be effective initial outreach facilitators. As such, at minimum, account managers should be appropriately educated on the Company's available rebate

[276] Foley Direct, p. 32

[277] Berkeley Law: Center for Law, Energy, and the Environment, University of California, Berkeley, "Policy Strategies to Promote Equitable EV Charging Access for Multi-Family Housing Residents," August 2024, available at https://www.law.berkeley.edu/wp-content/uploads/2024/08/EV-Charging-Access-for-Multifamily-Housing-Residents-CLEE-Report.pdf.

programs. Similar to the MUD Rebate Program, the eFleet Advisory Services team could utilize grid capacity data to identify business accounts that could more easily transition to EVs and host charging. From there, the eFleet Advisory Services team could coordinate with the existing account manager to learn more about the customer and develop a coordinated outreach strategy. Additionally, the company should also reconnect with customers who participate in the Business Rebate Programs quarterly to address customer questions and challenges. The Company should also provide this feedback, along with its learnings and resulting proposed programmatic changes, in its TEP to create an opportunity for stakeholder feedback.

As shown above, some utilities like ComEd have elected to work with third-party contractors to manage similar programs. Given the complexity inherent in managing advisory services, the Company could also consider contracting with a third-party provider to develop these relationships, educate customers, and manage project execution. In this case, the contractor would work with the Company's existing EV team to ensure that the program is as impactful and cost-effective as possible.

- *EVSP Network*: The Company lists several EVSPs on its web pages for several of its rebate programs. To ensure that the EVSPs are providing customers the most accurate information, DTE should host initial onboarding and follow-up educational events or webinars to ensure that the EVSPs are empowered with the most recent information and to obtain periodic feedback from participants. This feedback should be collected to assess opportunities to improve the existing program. The Company should also

provide this feedback, along with its learnings and resulting proposed programmatic changes, in its TEP to allow stakeholder feedback.

The Company could also consider the development of new, supportive E&O efforts including, but not limited to, the following:

- *Dealership network*: Dealers participating in ComEd's Dealership Network benefit from the network by becoming a listed provider on the utility's website that customers must purchase fleet vehicles through to qualify for a rebate.[278] They also gain access to utility program information and key educational materials, which helps ComEd ensure that customers are being provided accurate program details.[279] While the Commission has not approved vehicle rebate purchases, the Company could still benefit from creating a similar network to encourage dealerships to share EV charger rebate program information. Not only could this improve engagement in the Company's rebate programs in general, but it could also result in higher enrollment in DTE's TOU rates[280,

[278] BusinessWire, "ComEd Announces New Initiative to Award Instant Discounts for Electric Fleet Vehicles in Northern Illinois," October 2024, available at https://www.businesswire.com/news/home/20241003564166/en/ComEd-Announces-New-Initiative-to-Award-Instant-Discounts-for-Electric-Fleet-Vehicles-in-Northern-Illinois.

[279] *Ibid.*

[280] DTE Energy, "Time of Day 11 a.m. - 7 p.m.," accessed July 2025, available at https://solutions.dteenergy.com/dte/en/Products/Time-of-Day-11-a-m---7-p-m-/p/TOD-11-7.

[281, 282] and Smart Charge Program.[283] Key performance indicators for the Company to assess the impact of such a program could include:

- The number of dealers that the Company has engaged with to encourage program participation;
- The number of dealers that have been converted to participate in the program;
- The number of sales personnel trained;
- The number of customers inquiring about EVs that the trained dealers have engaged with; and
- The number of customers that have engaged with a trained salesperson and converted to participating in the appropriate charging rebate program and TOU rate.

Finally, like the EVSP Network, the Company should also host initial onboarding and follow-up educational events or webinars to ensure that the dealerships are empowered with the most recent information and to obtain periodic feedback from participants. This feedback should be collected to assess opportunities to improve the existing program. The Company should also provide this feedback, along with its learnings and resulting proposed programmatic changes, in its TEP to allow stakeholder feedback.

[281] DTE Energy, "Dynamic Peak Pricing," accessed July 2025, available at https://solutions.dteenergy.com/dte/en/Products/Dynamic-Peak-Pricing/p/DPP.

[282] DTE Energy, "Overnight Savers," accessed July 2025, available at https://www.dteenergy.com/us/en/residential/service-request/pricing/rate-options/overnight-savers.html.

[283] DTE Energy, "DTE Smart Charge," accessed July 2025, available at https://www.dteenergy.com/content/dam/dteenergy/deg/website/residential/Service-Request/pev/plug-in-electric-vehicles-pev/SmartChargeBrochure.pdf.

Automotive manufacturers and organizations, such as the Detroit Auto Dealers Association, could serve as an effective partner in developing and managing these relationships.

- *Webinars*: EPRI identifies webinars to be one of the most effective tools in engaging new customers.[284] To capitalize on this opportunity, the Company could host regular EV-focused webinars with targeted information for a variety of customers. More broadly, the webinars could also be targeted to EVSPs, dealerships, and other community partners, such as the Detroit Regional Chamber, the Greater Metropolitan Association of Realtors, the Apartment Association of Michigan, the Michigan State Housing Authority, the 2030 Districts, EGLE, the Michigan Association of Counties, the Michigan Townships Association, the Michigan Electric Vehicle Alliance, and the Michigan Municipal League.

Whether leaving existing programs unchanged, revising existing programs, or developing new opportunities, it is imperative that key metrics be tracked and assessed to help the Company discern opportunities to improve the programs in the future. These key metrics could include:

- *Participation rates*: At minimum, the company should collect participation rates at events and in their programs. These metrics should be collected over time to assess opportunities to improve the existing program and should be reported in the Company's TEP.

[284] Electric Power Research Institute, Inc., "Fleet Advisory Services: 101 and Best Practices," October 2024, available at https://www.epri.com/research/programs/053122/results/3002030500.

- *Conversion rates*: Evaluating conversion rates should take place at multiple stages, including assessing customer traffic to the Company's EV Resources webpages, customer inquiries about the company's programs, customer engagement with members of the Company's EV Advisory Services, and customer participation in the rebate programs. This can help the Company better assess trends in impactful customer outreach, customer attrition, and successful enrollment. These metrics should be collected over time to assess opportunities to improve the existing program and should be reported in the Company's TEP.
- *Satisfaction rates*: The Company should survey customers who have participated in its programs at multiple points in time - for example, during engagement for any account being managed by the Advisory Services team, immediately after program participation, six months after program participation, and one year after program participation.[285] This can help the Company better assess customer sentiment towards the engagement process. These metrics should be collected over time to assess opportunities to improve the existing program and should be reported in the Company's TEP.

Finally, given the complex nature of E&O, management of transportation electrification programs, and the challenges inherent to facilitating consumer behavioral changes, the Company could benefit from working with a third-party entity to manage its TEP programs. As shown above, utilities like ComEd have found success in engaging customers and improving customer participation in their Beneficial Electrification programs by

[285] In this case, program participation means that the customer completed all stages of the engagement process and received a rebate.

contracting with a third party.[286, 287] These third-party providers have expertise engaging with community partners and managing programs like the Company's EV rebate programs, thus alleviating management burden, unlocking improved program efficiencies, and encouraging innovation.

Q. What do you recommend with respect to the Company's E&O programs?

A. In the short term, the Company should:

- Assess the viability of working with a third-party contractor to manage a portion or all of its transportation electrification programs, and lead customer engagement efforts;
- Identify areas of opportunity to improve its E&O programs, specifically by developing a robust dealership program, more proactive outreach strategies for its existing eFleet Advisory Services and its prospective MUD Advisory Services, and opportunities to educate and connect key community stakeholders; and
- Establish clear metrics by which it will begin to evaluate the success of its E&O programs.

In the Company's 2026 TEP, the Company should:

- Report findings of its viability assessment to work with a third-party contractor to manage its transportation electrification programs and outreach efforts, detailing the

[286] PR Newswire, "ICF Selected for ComEd Beneficial Electrification Program," July 2024, available at https://www.prnewswire.com/news-releases/icf-selected-for-comed-beneficial-electrification-program-302199700.html.

[287] Commonwealth Edison, "Clean Energy," accessed July 2025, available at https://www.comed.com/about-us/clean-energy?utm_source=VanityURL&utm_medium=Clean&utm_campaign=CleanVanityURL.

cost assumptions and any benchmarking with other utilities used to inform the Company's evaluation;

- Propose an expansion of the Company's E&O budget to support the implementation of more robust and proactive E&O efforts, through opportunities such as developing a dealership network program, strengthening its Advisory Services offerings, and establishing resources and educational opportunities for key community stakeholders; and
- Propose the metrics by which the Company will evaluate the success of its E&O efforts, detailing explored alternatives, the variables considered for each proposed metric, and the recommended formulae to define each proposed metric.

F. REALLOCATION OF REBATE PROGRAM FUNDING

Q. What is the Company's proposal for TEP rebate program funding reallocation?

A. According to witness Foley, as a regulatory asset, the TEP rebate programs are approved for a maximum level of spending within a given authorized timeframe.[288] In the event that the Company depletes the funds approved for a specific rebate program, it would need to stop issuing rebates for that program until such a time that the Company receives Commission approval for more funds or a reallocation of program funds.[289] As such, the Company proposes that it should be able to

> reallocate funding between rebate programs as needed. Said differently, the Commission is authorizing a total level of Regulatory Asset treatment, and not specific rebate program levels.[290]

[288] Foley Direct, p. 18.

[289] *Ibid.*

[290] *Id.*, p. 17.

The Company would then be able to ensure that a popular subsegment of the rebate programs that exceeds targeted adoption levels could continue without interruption.[291] Witness Foley indicates that the Commission's direction in Case No. U-21534 to offer Public L2 Charger rebates without the approval of additional incremental funding to support this new subsegment emphasizes the importance of this issue.[292]

Q. Is the Company requesting to reallocate funds from one rebate program to another in this case?

A. Yes, the Company is proposing to reallocate $4.39 million from the non-DAC/non-rural on-route DCFC program to the Public L2 program.[293, 294] The Public L2 program was required to be created by the Commission in its January 2025 Order without the allocation of additional funding to support this new program.[295, 296] In response to a discovery request, the Company indicated that the non-DAC/non-rural on-route DCFC program was selected as the program from which to take funding due to the available budget capacity (Exhibit MEIU-1.10).

[291] *Id*, p. 18.

[292] *Ibid.*

[293] *Id.*, p. 19.

[294] *Id.*, p. 24.

[295] *Id.*, p. 19.

[296] *Id.*, p. 24.

Q. Does the Company explain how it proposes to assess programs eligible for reallocation in the future?

A. Yes, in response to a discovery request (Exhibit MEIU-1.11), the Company stated:

> [T]he Company would first consider forecasted rebate issuances by program considering, for example, historical issuance trends and/or prevailing EV adoption forecasts. Comparing these forecasted rebate issuances to current program funding would identify where the Company expects to exhaust program funding and where it expects to have unused program funding. The Company notes that such a calculation could only occur once it has sufficient data on rebate issuances by program and may require multiple scenarios to account for rebate issuance uncertainty.

Q. Do you agree with the Company's proposal to reallocate funding from one TEP program to another?

A. Conceptually, giving the Company authority to reallocate funding would ensure the efficient and effective deployment of TEP program funds. Specifically, in this case, I support the Company's proposal to reallocate funds to create the Public L2 program as required by the Commission.

However, I have concerns about providing the Company carte blanche to redistribute funds without any established guardrails. These programs and the spending levels associated with them are established for a myriad of reasons in each successive general electric rate case, and to allow the Company the ability to reallocate funds without guardrails, stakeholder input and Commission oversight would seem to undermine that formal review process. Stated differently, the parties to a rate case could litigate spending levels within a rate case only for DTE to unilaterally reallocate funds soon thereafter without those parties' (or the Commission's) having anything to say about it.

To address these concerns, the Commission could define, through a stakeholder process, guardrails or circumstances under which the Company can assess programs to determine reallocation eligibility. The Company could then be granted authority to reallocate funds between Commission-approved TEP programs as long as those guardrails are followed. Alternatively, the Commission could require the Company to file a formal request to reallocate funds, which could be done in an expedited, *ex parte* filing, to allow stakeholders the chance to respond or object if they choose to do so.

If the Commission initiates a process to define guardrails or circumstances under which the Company could reallocate funds, I recommend that the following issues be considered:

- *The outreach efforts committed to each subsegment.* Most importantly, it must be evident that the Company has exhibited the appropriate amount of effort to advertise and engage prospective customers to apply for the TEP program subsegment from which the Company is proposing to reallocate funds. This will ensure that the lack of participation is not falsely attributed to a lack of interest when the real issue may be a lack of awareness. Additionally, the Company should be required to provide an assessment detailing the reasons for low program demand in the subsequent general electric rate case to allow feedback for future program improvements and recommendations; and
- *The adoption levels of each rebate program subsegment.* To do this, the Commission could define a percentage of the maximum capacity that would trigger a program assessment for reallocation. For example, if a program has only issued 5% of the total

issuance goal of 100 rebates, this could suggest that funds could be moved from this subsegment to another subsegment that has higher demand. Conversely, if a program subsegment has reached 90% of its rebate issuance target, this would indicate that it may be eligible to draw funds from another subsegment with lower demand.

Absent the institution of clearly defined and measurable guardrails and a process by which the Commission will review reallocation requests, I do not recommend that the Commission approve the Company's request to reallocate funds between TEP programs without further review.

Q. What do you recommend with respect to the Company's request to reallocate TEP program funds in this particular instance?

A. I recommend that the Commission:

- Approve the Company's proposal in this case to reallocate $4.39 million from the non-DAC/non-rural on-route DCFC program to the Public L2 program; and
- Reject the Company's request for approval to reallocate funds in the future between transportation electrification programs without additional review, until and unless the Commission initiates a stakeholder engagement proceeding to establish clearly defined and measurable guardrails to guide the Company's requests to reallocate funds between transportation electrification programs and to define a process by which the Commission will review future reallocation requests.

III. CONCLUSIONS AND RECOMMENDATIONS

Q. Please summarize your conclusions and recommendations to the Commission.

A. I recommend that the Commission:

- Accept the Company's EV adoption forecasts;
- Require the Company to investigate opportunities to contract with a third-party expert to develop and manage its electrification programs and evaluate the costs and benefits of such a partnership, and report its finding in its next TEP;
- Require the Company identify areas of opportunity to improve its E&O programs, such as expanding its E&O budget to support the implementation of more robust and proactive E&O efforts, developing a dealership network program, strengthening its Advisory Services offerings, and establishing resources and educational opportunities for key community stakeholders;
- Require the Company to propose a short- and long-term strategy to improve its E&O programs in its next TEP;
- Require the Company to propose metrics it will use to evaluate the success of its E&O efforts in its next TEP;
- Approve the Company's proposal to reallocate $4.39 million from the non-DAC/non-rural on-route DCFC program to the Public L2 program; and
- Reject the Company's request for approval to reallocate funds in the future between transportation electrification programs without additional review, until and unless the Commission initiates a stakeholder engagement proceeding to establish clearly defined and measurable guardrails to guide the Company's requests to reallocate funds between

transportation electrification programs and to define a process by which the Commission will review future reallocation requests.

Q. Does that complete your testimony?

A. Yes.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

*****

In the matter of the Application of **DTE Electric Company** for authority to raise its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority.	)))))))	**Case No. U-21860**

EXHIBITS OF SOPHIA SCHUSTER

ON BEHALF OF

THE MICHIGAN ENERGY INNOVATION BUSINESS COUNCIL,

INSTITUTE FOR ENERGY INNOVATION,

AND

ADVANCED ENERGY UNITED

Sophia Schuster, MBA & MSCM

(814) 380-6535 | sophia@mieibc.org

SELECTED EXPERIENCE

Michigan Energy Innovation Business Council (EIBC) and the Institute for Energy Innovation (IEI) Lansing, MI
Policy Principal October 2023 – Present

- Develop regulatory and legislative policy positions to enable transportation electrification, and to support advanced energy and mobility industry sector growth in Michigan.
- Represent Michigan EIBC in the media, at the legislature, with regulators, and with the state administration in collaboration with a broad coalition.
- Engage with the Michigan Public Service Commission and Michigan legislature on behalf of member companies.
- Lead policy initiatives focused on transportation electrification and advanced mobility in Michigan, collaborating with a diverse coalition of state department, trade organization, special interest, and community figureheads.
- Advocate for member advanced mobility and workforce budget priorities with the Executive Office of the Governor, the Legislature, and state department leaders.
- Advise state departments on the development of advanced mobility program RFPs and program implementation.
- Managed the development, publication, and launch of report highlighting the importance of the automotive industry to the Michigan economy and the role that electric vehicles play in the industry's future.
- Coordinated with 20 member companies to identify and research key state policy opportunities and challenges to enable Michigan's electrification goals, resulting in the publication of the Transportation Electrification Roadmap.

The Pennsylvania State University—Office of Central Procurement University Park, PA
Strategic Procurement Intern January 2023 – May 2023

- Led financial analysis and evaluated University assets for high-profile RFP that resulted in a $58M, 10Y contract
- Developed a process map for all IT Software/Courseware purchasing across the University and its 22 branch campuses to launch LEAN analysis and enable process improvement recommendations
- Initiated the strategic process for reviewing IT Software blanket delegations to improve departmental efficiency and the end-user experience

The Pennsylvania State University—Smeal College of Business University Park, PA
SCM406 Strategic Procurement Instructor August 2022 – December 2022

- Implemented marketplace and supply base research, supply segmentation, and portfolio analysis tools, leading to successful, in-depth presentations on seven unique industries
- Cultivated communication and negotiation skills among 24 students, enabling effective leadership, team relationship management, and problem-solving
- Introduced firm financial performance metrics, spend analysis, and total cost of ownership models, empowering students to assess the health and reliability of prospective vendors

The Pennsylvania State University—Smeal College of Business University Park, PA
Sustainability Market Research Consultant May 2018 – May 2019

- Evaluated top 100 MBA programs' curricula for sustainability topics, resulting in a presentation to University leadership on the current and future state of the MBA program
- Consulted with 20 faculty to integrate sustainability issues as a key factor of modern risk analysis into 15 core courses
- Developed customer network of 80 local businesses to serve as pipeline for future student projects

EDUCATION

The Pennsylvania State University, *Smeal College of Business* University Park, PA
Master of Supply Chain Management, GPA: 3.69 May 2023

The Pennsylvania State University, *Smeal College of Business* University Park, PA
Master of Business Administration, GPA: 3.61 May 2019

Albright College Reading, PA
Bachelor of Arts—Environmental Studies & Political Science, GPA: 3.59 May 2012

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-1.6d

Respondent: N. Foley

Page: 1 of 2

Question: 6. Refer to the Direct Testimony of Witness N. Foley, at p. 32. The Company indicates that it hopes to issue roughly 3,150 rebates to fleet customers across its Transit Bus DCFC, School Bus DCFC, Other Fleet DCFC, and Fleet Level 2 programs (See Table 6, 26).

d. Please explain the engagement of the eFleet Advisory Services team to educate potential fleet customer applicants on fleet transition viability, total cost of ownership, eligibility for the Company's rebate programs, and other relevant grant opportunities.

Answer: The Company's eFleet Advisory Services team supports potential fleet customers throughout their electrification journey. The objective is to help customers make informed, cost-effective decisions about their transition to an electrified fleet.

Additional detail on the Company's eFleet offerings can be found on the program webpage: (https://www.dteenergy.com/us/en/business/service-request/pev/efleet-charger-rebate.html)

At a high level, the engagement begins with the eFleet Advisory Services team helping customers evaluate the viability of transitioning to electric vehicles by assessing operational needs, driving patterns, and vehicle availability. The eFleet Advisory Services team then conducts a comprehensive total cost of ownership (TCO) analysis that compares electric and internal combustion engine vehicles, considering fuel savings, maintenance reductions, and available incentives.

The Company's eFleet Advisory Services team also ensures customers understand the eligibility criteria and application process for the Company's eFleet Rebate program. In parallel, customers are informed about relevant federal, state, and local grant opportunities, such as EPA Clean School Bus funds or Michigan's Mobility initiatives, to help offset vehicle and infrastructure

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-1.6d

Respondent: N. Foley

Page: 2 of 2

costs.

Attachment: *None*

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-1.5a

Respondent: N. Foley

Page: 1 of 1

Question: 5. Refer to the Direct Testimony of Witness N. Foley, at p. 32. The Company indicates that it hopes to issue roughly 490 and 4,132 rebates to LI and Non-LI MUD customers, respectively (See Table 3, 22).

a. Please detail the education and outreach efforts to communicate electrification and rebate opportunities to these customer segments.

Answer: DTE is executing MUD education and outreach through the following channels:

- The Company's Business EV webpage (dteenergy.com/evbiz)
- MUD associations; for example, though the Apartment Association of Michigan
- Digital marketing; for example, by utilizing digital display banners
- Emails; the Company sends education material to MUD business accounts
- MUD events and meetings; for example, the Company presented at the Apartment Association of Michigan's April 9, 2025, in-person meeting
- Print materials provided at in-person meetings and at events; for example, at the Energy Efficiency Conference
- Messaging on MUD customer eBills
- Social media; for example, paid social posts on LinkedIn

Attachment: *None*

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-1.6a

Respondent: N. Foley

Page: 1 of 1

Question: 6. Refer to the Direct Testimony of Witness N. Foley, at p. 32. The Company indicates that it hopes to issue roughly 3,150 rebates to fleet customers across its Transit Bus DCFC, School Bus DCFC, Other Fleet DCFC, and Fleet Level 2 programs (See Table 6, 26).

a. Please detail the education and outreach efforts to communicate electrification and rebate opportunities to each of these segments.

Answer: DTE is executing Fleet education and outreach through the following channels:

- The Company's Business EV webpage (dteenergy.com/evbiz)
- Associations; for example, though Michigan Association of Counties and Michigan Municipal League
- Digital marketing; for example, by utilizing digital display banners
- Emails; the Company sends education material to business accounts
- eFleet events and meetings; for example, the Company held an eFleet "ride and drive" event at Schoolcraft college on June 3, 2025
- Print materials provided at in-person meetings and at events; for example, at the Energy Efficiency Conference
- Messaging on business customer eBills
- Social media; for example, paid social posts on LinkedIn

Attachment: *None*

U-21860 MEIUDE-1.5b-01 MUD Marketing Materials

Multi-Family Website: https://www.dteenergy.com/us/en/business/service-request/pev/multifamily-ev-charger-rebate.html

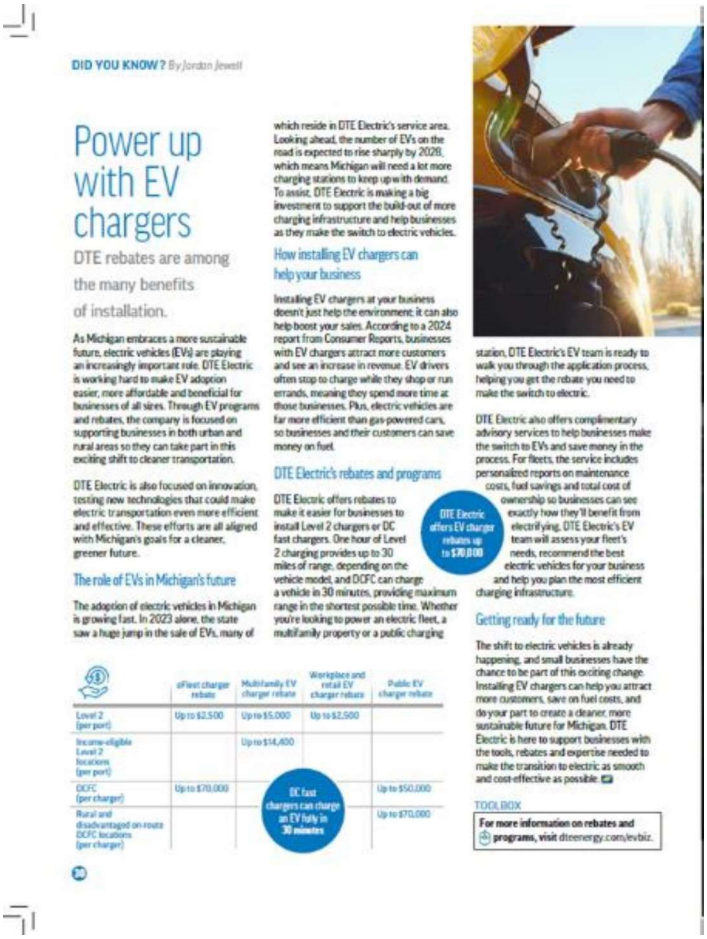
eBill

Save $$ on EV chargers

DTE's electric vehicle (EV) charger rebates can help you save thousands of dollars when you install chargers.

Get charging ›

Energy Smarts Magazine Feat. Biz Programs



DID YOU KNOW? By Jordan Jewell

Power up with EV chargers

DTE rebates are among the many benefits of installation.

As Michigan embraces a more sustainable future, electric vehicles (EVs) are playing an increasingly important role. DTE Electric is working hard to make EV adoption easier, more affordable and beneficial for businesses of all sizes. Through EV programs and rebates, the company is focused on supporting businesses in both urban and rural areas so they can take part in this exciting shift to cleaner transportation.

DTE Electric is also focused on innovation, testing new technologies that could make electric transportation even more efficient and effective. These efforts are all aligned with Michigan's goals for a cleaner, greener future.

The role of EVs in Michigan's future

The adoption of electric vehicles in Michigan is growing fast. In 2023 alone, the state saw a huge jump in the sale of EVs, many of which reside in DTE Electric's service area. Looking ahead, the number of EVs on the road is expected to rise sharply by 2028, which means Michigan will need a lot more charging stations to keep up with demand. To assist, DTE Electric is making a big investment to support the build-out of more charging infrastructure and help businesses as they make the switch to electric vehicles.

How installing EV chargers can help your business

Installing EV chargers at your business doesn't just help the environment; it can also help boost your sales. According to a 2024 report from Consumer Reports, businesses with EV chargers attract more customers and see an increase in revenue. EV drivers often stop to charge while they shop or run errands, meaning they spend more time at those businesses. Plus, electric vehicles are far more efficient than gas-powered cars, so businesses and their customers can save money on fuel.

DTE Electric's rebates and programs

DTE Electric offers rebates to make it easier for businesses to install Level 2 chargers or DC fast chargers. One hour of Level 2 charging provides up to 30 miles of range, depending on the vehicle model, and DCFC can charge a vehicle in 30 minutes, providing maximum range in the shortest possible time. Whether you're looking to power an electric fleet, a multifamily property or a public charging station, DTE Electric's EV team is ready to walk you through the application process, helping you get the rebate you need to make the switch to electric.

DTE Electric offers EV charger rebates up to $70,000

DTE Electric also offers complimentary advisory services to help businesses make the switch to EVs and save money in the process. For fleets, the service includes personalized reports on maintenance costs, fuel savings and total cost of ownership so businesses can see exactly how they'll benefit from electrifying. DTE Electric's EV team will assess your fleet's needs, recommend the best electric vehicles for your business and help you plan the most efficient charging infrastructure.

	eFleet charger rebate	Multifamily EV charger rebate	Workplace and retail EV charger rebate	Public EV charger rebate
Level 2 (per port)	Up to $2,500	Up to $5,000	Up to $2,500	
Income-eligible Level 2 locations (per port)		Up to $14,400		
DCFC (per charger)	Up to $70,000			Up to $50,000
Rural and disadvantaged on-route DCFC locations (per charger)				Up to $70,000

DC fast chargers can charge an EV fully in 30 minutes

Getting ready for the future

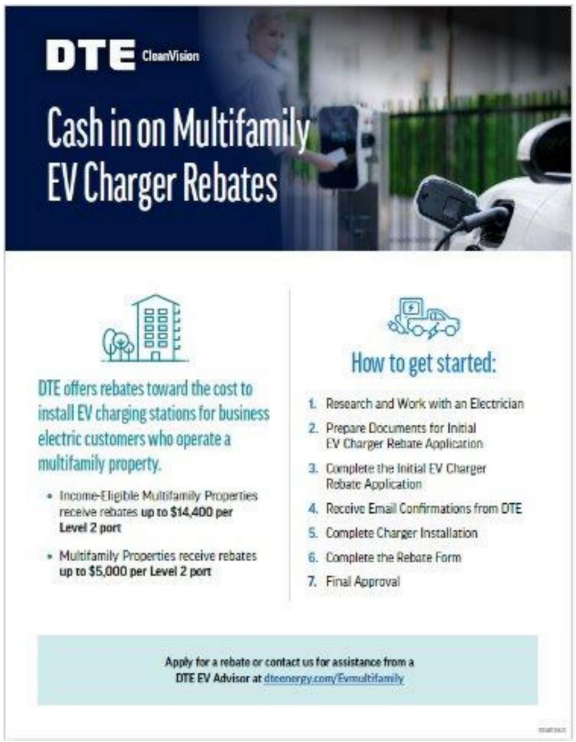
The shift to electric vehicles is already happening, and small businesses have the chance to be part of this exciting change. Installing EV chargers can help you attract more customers, save on fuel costs, and do your part to create a cleaner, more sustainable future for Michigan. DTE Electric is here to support businesses with the tools, rebates and expertise needed to make the transition to electric as smooth and cost-effective as possible.

TOOLBOX

For more information on rebates and programs, visit dteenergy.com/evbiz.

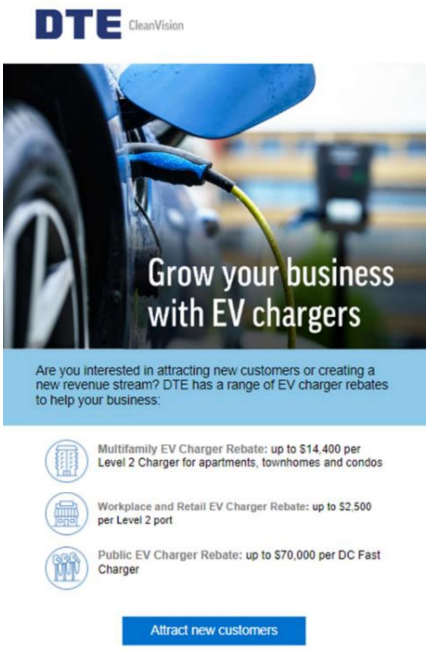
Printed Material:

Multifamily Print Handout:

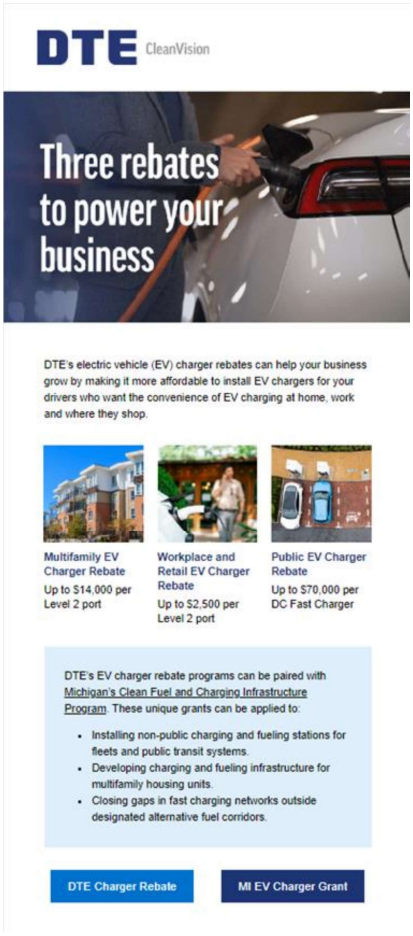


Multifamily Email

Retargeting Multifamily Email



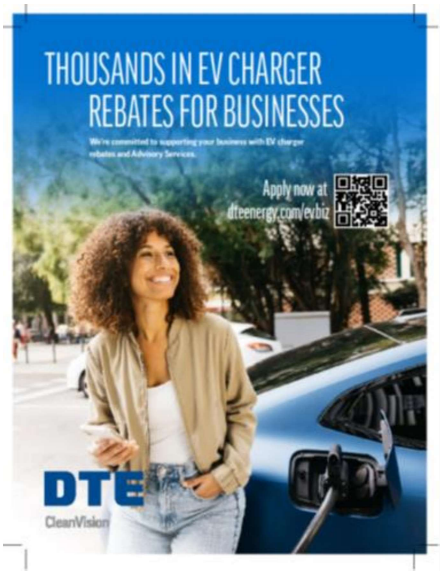
Multifamily Email



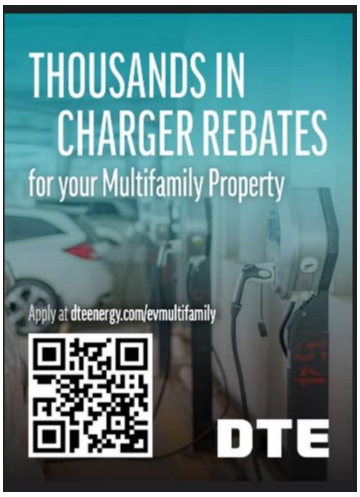
Michigan Association of Counties (MAC) Digital Banner & Print

Michigan Municipal League (MML) Digital Banner

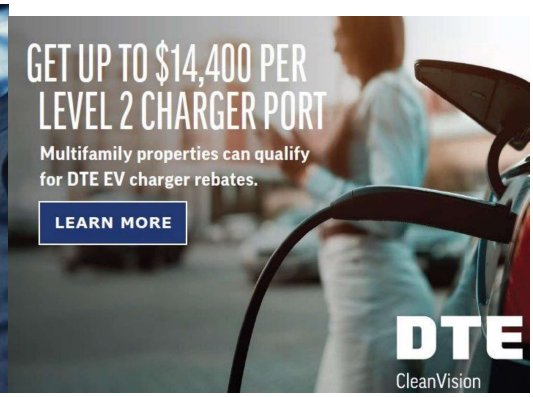
MML Digital Ad



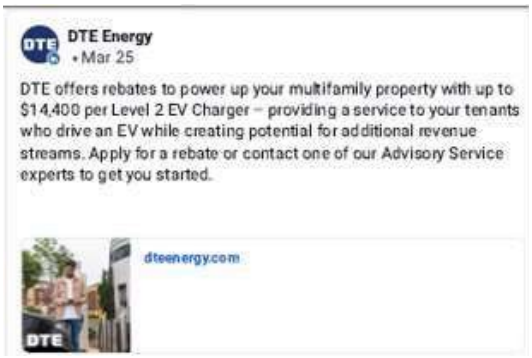
Apartment Association of Michigan Connection (AAM) Print Ad



Multifamily Digital Banner Ads



LinkedIn Multifamily Paid Social

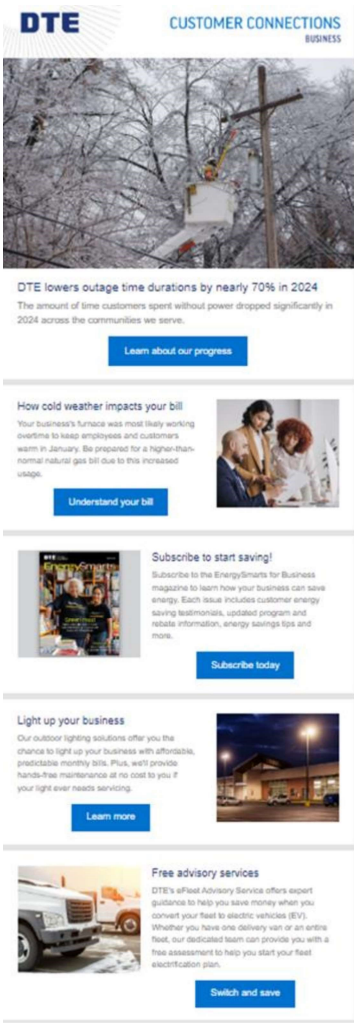


U-21860 MEIUDE-1.6b-01 Fleet Marketing Materials

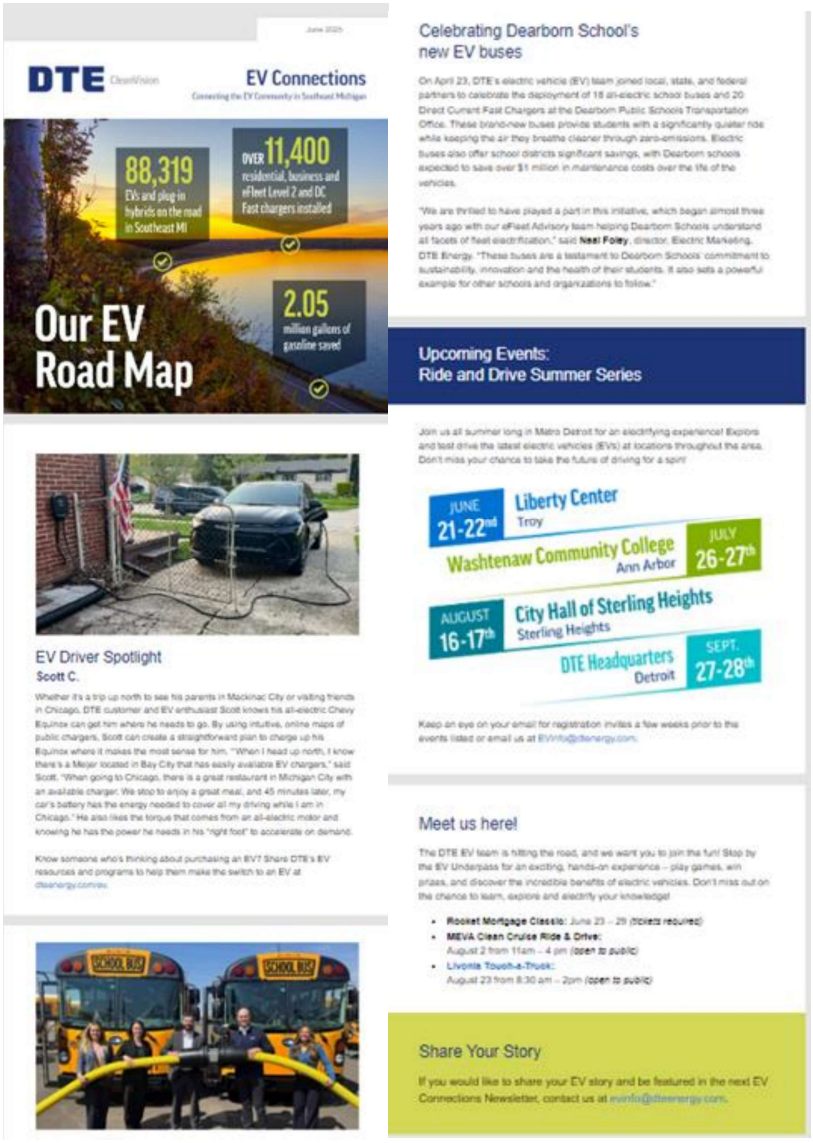
Fleet Website: https://www.dteenergy.com/us/en/business/service-request/pev/efleet-charger-rebate.html

eBill

eFleet ePublications



EV Connections featuring eFleet Program



DTE CleanVision

EV Connections

Connecting the EV Community in Southeast Michigan

88,319 EVs and plug-in hybrids on the road in Southeast MI

OVER 11,400 residential, business and eFleet Level 2 and DC Fast chargers installed

2.05 million gallons of gasoline saved

Our EV Road Map

EV Driver Spotlight

Scott C.

Whether it's a trip up north to see his parents in Mackinac City or visiting friends in Chicago, DTE customer and EV enthusiast Scott knows his all-electric Chevy Equinox can get him where he needs to go. By using intuitive, online maps of public chargers, Scott can create a straightforward plan to charge up his Equinox where it makes the most sense for him. "When I head up north, I know there's a Meijer located in Bay City that has easily available EV chargers," said Scott. "When going to Chicago, there is a great restaurant in Michigan City with an available charger. We stop to enjoy a great meal, and 45 minutes later, my car's battery has the energy needed to cover all my driving while I am in Chicago." He also likes the torque that comes from an all-electric motor and knowing he has the power he needs in his "right foot" to accelerate on demand.

Know someone who's thinking about purchasing an EV? Share DTE's EV resources and programs to help them make the switch to an EV at dteenergy.com/ev.

Celebrating Dearborn School's new EV buses

On April 23, DTE's electric vehicle (EV) team joined local, state, and federal partners to celebrate the deployment of 18 all-electric school buses and 20 Direct Current Fast Chargers at the Dearborn Public Schools Transportation Office. These brand-new buses provide students with a significantly quieter ride while keeping the air they breathe cleaner through zero-emissions. Electric buses also offer school districts significant savings, with Dearborn schools expected to save over $1 million in maintenance costs over the life of the vehicles.

"We are thrilled to have played a part in this initiative, which began almost three years ago with our eFleet Advisory team helping Dearborn Schools understand all facets of fleet electrification," said **Neal Foley**, director, Electric Marketing, DTE Energy. "These buses are a testament to Dearborn Schools' commitment to sustainability, innovation and the health of their students. It also sets a powerful example for other schools and organizations to follow."

Upcoming Events:
Ride and Drive Summer Series

Join us all summer long in Metro Detroit for an electrifying experience! Explore and test drive the latest electric vehicles (EVs) at locations throughout the area. Don't miss your chance to take the future of driving for a spin!

- JUNE 21-22nd — Liberty Center, Troy
- JULY 26-27th — Washtenaw Community College, Ann Arbor
- AUGUST 16-17th — City Hall of Sterling Heights, Sterling Heights
- SEPT. 27-28th — DTE Headquarters, Detroit

Keep an eye on your email for registration invites a few weeks prior to the events listed or email us at EVinfo@dteenergy.com.

Meet us here!

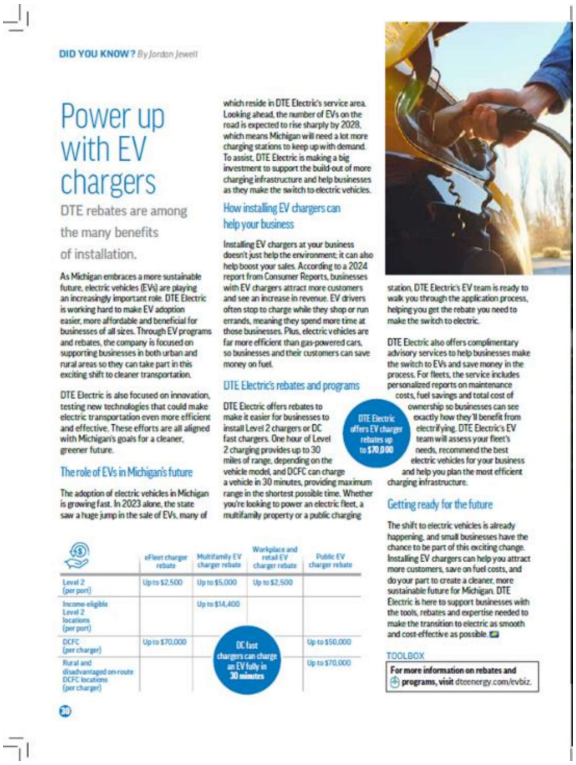
The DTE EV team is hitting the road, and we want you to join the fun! Stop by the EV Underpass for an exciting, hands-on experience – play games, win prizes, and discover the incredible benefits of electric vehicles. Don't miss out on the chance to learn, explore and electrify your knowledge!

- **Rocket Mortgage Classic:** June 23 – 29 *(tickets required)*
- **MEVA Clean Cruise Ride & Drive:**
  August 2 from 11am – 4 pm *(open to public)*
- **Livonia Touch-a-Truck:**
  August 23 from 8:30 am – 2pm *(open to public)*

Share Your Story

If you would like to share your EV story and be featured in the next EV Connections Newsletter, contact us at evinfo@dteenergy.com.

Energy Smarts Magazine Featuring Biz Programs



DID YOU KNOW? By Jordan Jewell

Power up with EV chargers

DTE rebates are among the many benefits of installation.

As Michigan embraces a more sustainable future, electric vehicles (EVs) are playing an increasingly important role. DTE Electric is working hard to make EV adoption easier, more affordable and beneficial for businesses of all sizes. Through EV programs and rebates, the company is focused on supporting businesses in both urban and rural areas so they can take part in this exciting shift to cleaner transportation.

DTE Electric is also focused on innovation, testing new technologies that could make electric transportation even more efficient and effective. These efforts are all aligned with Michigan's goals for a cleaner, greener future.

The role of EVs in Michigan's future

The adoption of electric vehicles in Michigan is growing fast. In 2023 alone, the state saw a huge jump in the sale of EVs, many of which reside in DTE Electric's service area. Looking ahead, the number of EVs on the road is expected to rise sharply by 2028, which means Michigan will need a lot more charging stations to keep up with demand. To assist, DTE Electric is making a big investment to support the build-out of more charging infrastructure and help businesses as they make the switch to electric vehicles.

How installing EV chargers can help your business

Installing EV chargers at your business doesn't just help the environment; it can also help boost your sales. According to a 2024 report from Consumer Reports, businesses with EV chargers attract more customers and see an increase in revenue. EV drivers often stop to charge while they shop or run errands, meaning they spend more time at those businesses. Plus, electric vehicles are far more efficient than gas-powered cars, so businesses and their customers can save money on fuel.

DTE Electric's rebates and programs

DTE Electric offers rebates to make it easier for businesses to install Level 2 chargers or DC fast chargers. One hour of Level 2 charging provides up to 30 miles of range, depending on the vehicle model, and DCFC can charge a vehicle in 30 minutes, providing maximum range in the shortest possible time. Whether you're looking to power an electric fleet, a multifamily property or a public charging station, DTE Electric's EV team is ready to walk you through the application process, helping you get the rebate you need to make the switch to electric.

DTE Electric offers EV charger rebates up to $70,000

DTE Electric also offers complimentary advisory services to help businesses make the switch to EVs and save money in the process. For fleets, the service includes personalized reports on maintenance costs, fuel savings and total cost of ownership so businesses can see exactly how they'll benefit from electrifying. DTE Electric's EV team will assess your fleet's needs, recommend the best electric vehicles for your business and help you plan the most efficient charging infrastructure.

Getting ready for the future

The shift to electric vehicles is already happening, and small businesses have the chance to be part of this exciting change. Installing EV chargers can help you attract more customers, save on fuel costs, and do your part to create a cleaner, more sustainable future for Michigan. DTE Electric is here to support businesses with the tools, rebates and expertise needed to make the transition to electric as smooth and cost-effective as possible.

	eFleet charger rebate	Multifamily EV charger rebate	Workplace and retail EV charger rebate	Public EV charger rebate
Level 2 (per port)	Up to $2,500	Up to $5,000	Up to $2,500	
Income-eligible Level 2 locations (per port)		Up to $14,400		
DCFC (per charger)	Up to $70,000			Up to $50,000
Rural and disadvantaged on-route DCFC locations (per charger)				Up to $70,000

DC fast chargers can charge an EV fully in 30 minutes

TOOLBOX

For more information on rebates and programs, visit dteenergy.com/evbiz.

Printed Material

DTE CleanVision

Your electric vehicle journey starts here

We offer programs and resources that help guide you to your EV destination.

Home EV Charger Rebate

See if you qualify to cash in on our Home EV Charger Rebate which covers the cost of a Level 2 charger and the installation.

For more information visit dteenergy.com/ev

Business Programs

Multifamily EV Charger Rebate
Power up your Multifamily Property with up to $14,400 per Level 2 port.

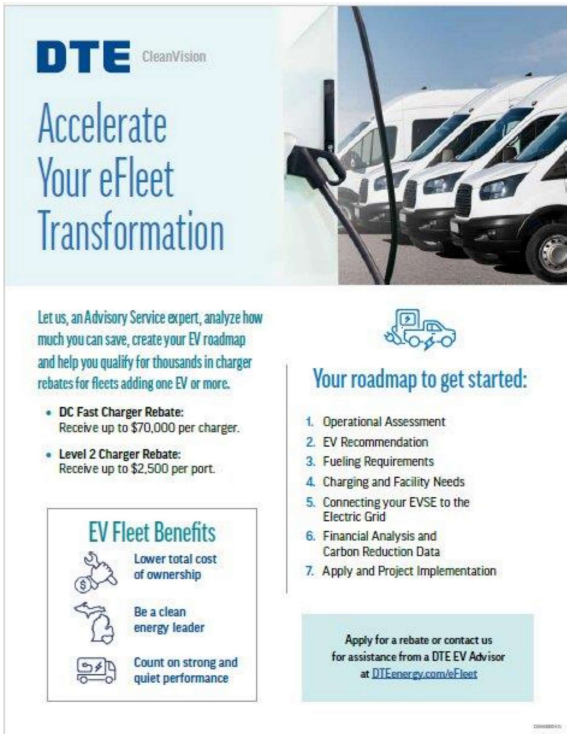
Public EV Charger Rebate
Cash in up to $70,000 per DC Fast Charger if you're within a mile of a major through way.

Workplace and Retail EV Charger Rebate
Earn up to $2,500 per Level 2 port when you install public chargers.

eFleet Charger Rebate
DTE offers rebates up to $70,000 per qualified DC Fast Charger and $2,500 per Level 2 port.

For more information for your business visit dteenergy.com/evbiz

eFleet Printed Material



eFleet Email

Retargeting eFleet Email

eFleet Email

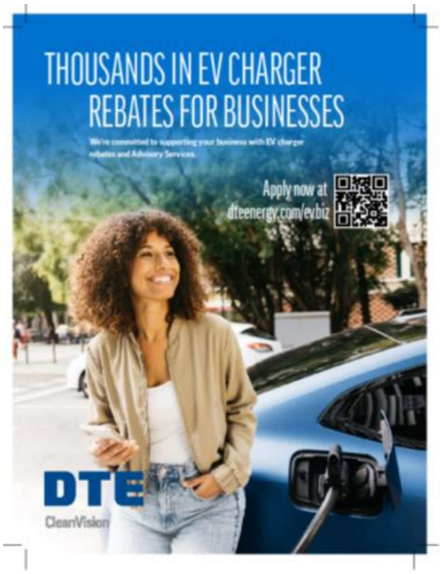
eFleet Email

eFleet Email

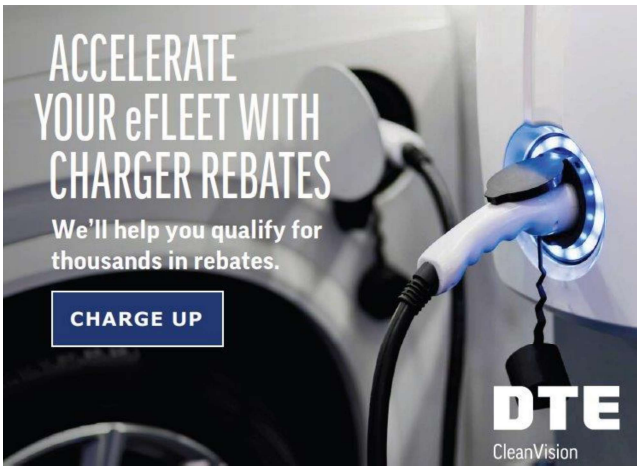
Michigan Association of Counties (MAC) Digital & Print Ad

Michigan Municipal League (MML) Digital Ad

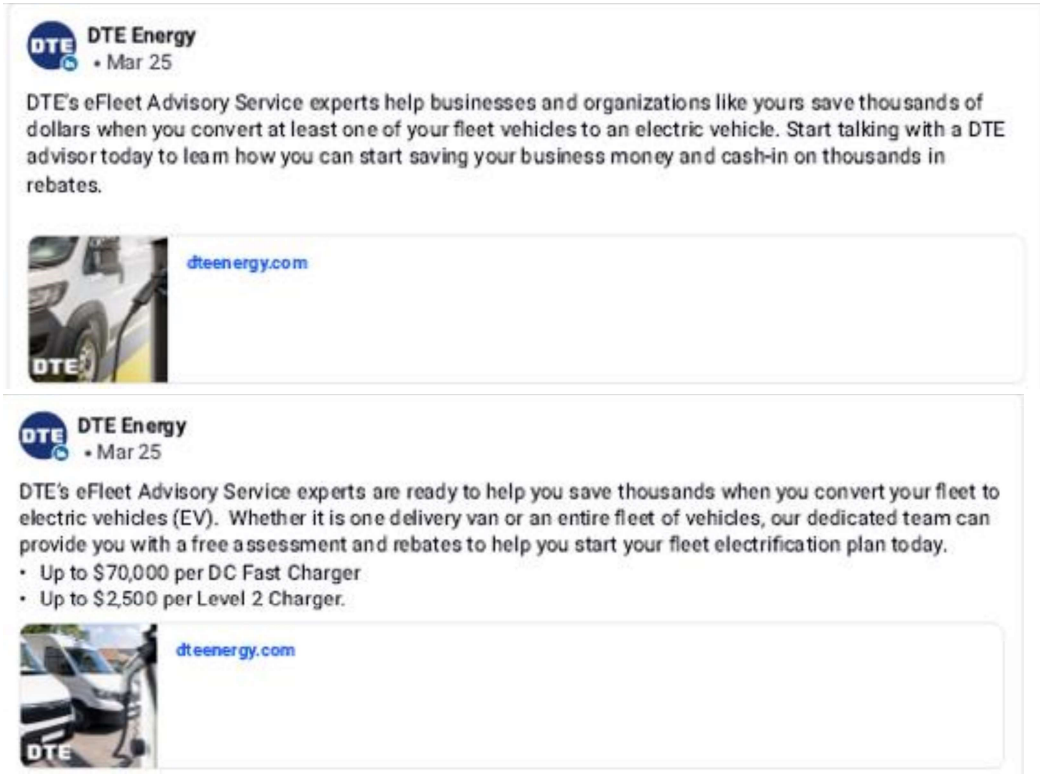
MML Digital Ad



eFleet Digital Banner Ads



LinkedIn eFleet Paid Social



MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-1.5c

Respondent: N. Foley

Page: 1 of 1

Question: 5. Refer to the Direct Testimony of Witness N. Foley, at p. 32. The Company indicates that it hopes to issue roughly 490 and 4,132 rebates to LI and Non-LI MUD customers, respectively (See Table 3, 22).

c. Please explain the process the Company uses to identify potential applicants in both customer segments.

Answer: See response to MEIUDE-1.5a which describes the Company's outreach and education initiatives related to its MUD related programs. These initiatives are designed in part to raise awareness of the Company's rebate programs and increase applications.

In addition, the Company works with external organizations (e.g., Michigan State Housing Development Authority [MSHDA], Apartment Association of Michigan [AAM], 2030 District, EGLE, etc.) to identify perspective MUDs and market its rebate offerings.

For LI specifically, the Company is utilizing documentation from MSHDA that identifies "low-income housing tax credit" award recipients to conduct initial outreach. In addition, the Company is contacting property developers known to be building MUDs to provide rebate information while maintaining relationships with various contractors/electricians who service this customer segment to discuss and market the rebate opportunities.

Attachment: *None*

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-1.5d

Respondent: N. Foley

Page: 1 of 1

Question: 5. Refer to the Direct Testimony of Witness N. Foley, at p. 32. The Company indicates that it hopes to issue roughly 490 and 4,132 rebates to LI and Non-LI MUD customers, respectively (See Table 3, 22).

d. Please explain how the Company is tracking education and outreach success related to LI and non-LI MUD customers.

Answer: Where possible, the Company reviews the performance of each marketing tactic's engagement against overall Company performance, past EV programing performance, and/or industry averages. The Company also monitors website traffic volume.

Attachment: *None*

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-1.6e

Respondent: N. Foley

Page: 1 of 1

Question: 6. Refer to the Direct Testimony of Witness N. Foley, at p. 32. The Company indicates that it hopes to issue roughly 3,150 rebates to fleet customers across its Transit Bus DCFC, School Bus DCFC, Other Fleet DCFC, and Fleet Level 2 programs (See Table 6, 26).

e. Please explain how the Company is tracking education and outreach success to fleet customers.

Answer: Where possible, the Company reviews the performance of each marketing tactic's engagement against overall Company performance, past EV programing performance, and/or industry averages. The Company also monitors website traffic volume.

Attachment: *None*

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-1.3a

Respondent: N. Foley

Page: 1 of 1

Question: 3. Refer to the Direct Testimony of Witness N. Foley, at p. 23. Please detail the criteria the Company used to determine that it should reallocate $4.39 million from the Company's Non-DAC/Non-Rural On-Route DCFC rebate program to the Public L2 Charger rebate program approved by the Commission in its January 2025 Order.

a. Why does the Company propose to reallocate funds specifically from the Non-DAC/Non-Rural On-Route DCFC rebate program?

Answer: A reallocation of funding was necessary because no incremental funding was authorized for the Public Level 2 (L2) program in the Commission's January 2025 Order. Said differently, the Company had to select a program (or programs) to reallocate funding from to be in compliance with the Commission's January 2025 Order.

The Non-DAC/Non-Rural On-Route DCFC program was selected as the source of the reallocation due to available budget capacity.

The Company notes that in the instant case it is proposing to confirm its ability to reallocate funding between programs in response to prevailing adoption trends. For example, if Non-DAC/Non-Rural On-Route DCFC rebate funding were to be exhausted but funding was available elsewhere, the Company could consider a reallocation back to the Non-DAC/Non-Rural On-Route DCFC program such that it would not need to stop issuing rebates.

Attachment: *None*

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-1.3di

Respondent: N. Foley

Page: 1 of 1

Question: 3. Refer to the Direct Testimony of Witness N. Foley, at p. 23. Please detail the criteria the Company used to determine that it should reallocate $4.39 million from the Company's Non-DAC/Non-Rural On-Route DCFC rebate program to the Public L2 Charger rebate program approved by the Commission in its January 2025 Order.

d. In the future, what criteria would the Company propose to use to determine:

i. When it is necessary to reallocate funding between rebate programs?

Answer: To determine when it may be necessary to reallocate funding between rebate programs, the Company would first consider forecasted rebate issuances by program considering, for example, historical issuance trends and/or prevailing EV adoption forecasts. Comparing these forecasted rebate issuances to current program funding would identify where the Company expects to exhaust program funding and where it expects to have unused program funding.

The Company notes that such a calculation could only occur once it has sufficient data on rebate issuances by program and may require multiple scenarios to account for rebate issuance uncertainty. For example, for several of the Company's rebate programs, approval is provided before a charger is deployed. The Company therefore expects that some portion of approved rebates will never be issued since some projects are likely to be abandoned after receiving rebate approval. Understanding the portion of approved rebates that are ultimately issued is a key consideration when forecasting rebate issuances for these programs.

If any program was forecasted to have unused funding, the Company would consider allocating that funding to programs forecasted to exhaust their funding.

Attachment: *None*

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-1.3dii

Respondent: N. Foley

Page: 1 of 1

Question: 3. Refer to the Direct Testimony of Witness N. Foley, at p. 23. Please detail the criteria the Company used to determine that it should reallocate $4.39 million from the Company's Non-DAC/Non-Rural On-Route DCFC rebate program to the Public L2 Charger rebate program approved by the Commission in its January 2025 Order.

d. In the future, what criteria would the Company propose to use to determine:

ii. Which rebate programs have excess funding that can be reallocated?

Answer: See response to MEIUDE-1.3di

Attachment: *None*

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-1.3diii

Respondent: N. Foley

Page: 1 of 1

Question: 3. Refer to the Direct Testimony of Witness N. Foley, at p. 23. Please detail the criteria the Company used to determine that it should reallocate $4.39 million from the Company's Non-DAC/Non-Rural On-Route DCFC rebate program to the Public L2 Charger rebate program approved by the Commission in its January 2025 Order.

d. In the future, what criteria would the Company propose to use to determine:

iii. When a rebate program needs more funding?

Answer: See response to MEIUDE-1.3di

Attachment: *None*

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

*****

In the matter of the application of **DTE ELECTRIC COMPANY** for authority to increase its rates, amend its rate schedules and the rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority.	)))))))	**Case No. U-21860**

DIRECT TESTIMONY OF DR. LAURA S. SHERMAN

ON BEHALF OF

THE MICHIGAN ENERGY INNOVATION BUSINESS COUNCIL,

INSTITUTE FOR ENERGY INNOVATION,

AND

ADVANCED ENERGY UNITED

TABLE OF CONTENTS

I. INTRODUCTION AND QUALIFICATIONS

Q. State your name, business name and address.

A. My name is Dr. Laura S. Sherman, and I am the President of the Michigan Energy Innovation Business Council ("Michigan EIBC") and the Institute for Energy Innovation ("IEI"), located at 115 West Allegan, Suite 710, Lansing, Michigan 48933.

Q. On whose behalf are you appearing in this case?

A. I am appearing here as an expert witness on behalf of Michigan EIBC, IEI, and Advanced Energy United ("United"), collectively referred to as "MEIU."

Q. Summarize your educational background.

A. I have a Ph.D. from the University of Michigan Earth and Environmental Sciences Department, conferred in May 2012. I also have a Bachelor of Science degree from Stanford University in Geological and Environmental Sciences, conferred in June 2005.

Q. Summarize your experience in the field of electric utility regulation.

A. Since April 2019, I have served as the President of Michigan EIBC and IEI. Prior to that, starting in February 2017, I was a Senior Consultant at 5 Lakes Energy focusing on energy policy and utility regulation. I also served as the Vice President for Policy Development for the Michigan EIBC and IEI. In these capacities, I have written testimony in many non-adjudicated dockets before the Michigan Public Service ("Commission" or "MPSC"). From 2014–2016, I served as a Policy Advisor on energy, environment, and agriculture issues to Senator Michael Bennet (D-CO) in the U.S. Senate. In that capacity, I provided

policy expertise, conducted research, developed legislation, and analyzed regulations. Prior to that, my doctoral (2007–2012) and postdoctoral (2012–2014) research was focused on the tracing of pollutants emitted during energy generation. My work experience is set forth in detail in my résumé, attached as Exhibit MEIU-2.1.

Q. Summarize your professional development coursework in the field of electric utility regulation.

A. In August 2017, I completed the Electric Utility Consultants Inc. ("EUCI") course titled "Optimizing the Interconnection Process for Renewables & Storage: A National Forum for Addressing Process and Technical Issues." In December 2017, I completed the EUCI course titled "The Electric Vehicle-Utility Industry Nexus." In January 2018, I completed the EUCI course titled "Evolution of Electricity Markets: Disruptive Innovation & Economic Impacts: Highly Interactive Course Designed to Provide A Practical Overview of Evolving U.S. Power Markets."

Q. Have you testified before this Commission or as an expert in any other proceeding?

A. Yes. I previously testified as an expert witness in the following cases:

- U-20134 (Consumers Energy Company ["Consumers Energy"] general electric rate case);
- U-20165 (Consumers Energy Integrated Resource Plan ["IRP"] case);
- U-20162 (DTE Electric Company ["DTE Electric" or "the Company"] general electric rate case);
- U-20471 (DTE Electric IRP case);
- U-18232 (DTE Electric Renewable Energy Plan case);
- U-20649 (Consumers Energy Voluntary Green Pricing ["VGP"] Program case);

- Consolidated U-20713 (DTE Electric VGP Program case)/U-20851 (DTE Electric Renewable Energy Plan case);
- U-20693 (Consumers Energy general electric rate case);
- U-21090 (Consumers Energy IRP case);
- U-21131 (Consumers Energy Legally Enforceable Obligation case);
- U-21134 (Consumers Energy VGP Program case);
- U-20836 (DTE Electric general electric rate case);
- U-21224 (Consumers Energy general electric rate case);
- U-21172 (DTE Electric VGP Program case);
- U-21193 (DTE Electric IRP case);
- U-21297 (DTE Electric general electric rate case);
- U-21374 (Consumers Energy VGP Program case);
- U-21389 (Consumers Energy general electric rate case);
- U-21534 (DTE Electric general electric rate case);
- U-21482 (DTE Electric interconnection procedures case);
- U-21585 (Consumers Energy general electric rate case); and
- U-21375 (DTE Electric VGP Program case).

Q. Have you provided analysis in support of testimony or comments in any other utility regulatory proceeding?

A. Yes, I have provided comments with input from Michigan EIBC member companies in a number of different proceedings including:

- U-18351 and U-18352 (development of voluntary green pricing programs);
- U-18361 (code of conduct rules);
- U-18383 (development of a distributed generation ["DG"] tariff);

- U-20095 (Public Utility Regulatory Policies Act of 1978 ["PURPA"] regulations and capacity determinations);
- U-20147 (distribution system planning and utility distribution system plans);
- U-20890 (Interconnection and Distributed Generation Standards);
- U-20898 (utility business models);
- U-20905 (implementation of Federal Energy Regulatory Commission ["FERC"] Order 872);
- U-20959 (customer data access);
- U-21099 (demand response aggregation);
- U-21219 and U-18461 (IRP Filing Requirements and Planning Parameters);
- U-21251 (grid system data access);
- U-21400 (performance based regulation/reliability metrics and reliability plus);
- U-21467 (Indiana Michigan Power interconnection procedures);
- U-21480 (Consumers Energy interconnection procedures);
- U-21492 (transportation electrification plan requirements);
- U-21547 (implementation of PA 233 regarding wind/solar/storage siting);
- U-21568 (implementation of PA 235 regarding the renewable portfolio standard);
- U-21569 (implementation of PA 235 regarding the DG Program);
- U-21567 (implementation of PA 239 regarding energy efficiency and electrification);
- U-21570 (IRP filing requirements and planning parameters);
- U-21571 (implementation of PA 235 regarding the energy storage mandate);
- U-21637 (general electric rate case processes); and
- U-21902 (Midcontinent Independent System Operator Expedited Resource Addition Study process).

In addition to this work, I have been involved on behalf of Michigan EIBC in multiple workgroup proceedings at the Commission, including those focused on electric vehicle ("EV") deployment, DG tariffs, IRP filing requirements, energy waste reduction, and distribution system planning. I was involved on behalf of Michigan EIBC/IEI in the MI Power Grid workshop proceedings at the Commission, including those focused on new technologies and business models, customer data access, updating the state's interconnection rules, demand response, distribution system planning, pilot programs, competitive procurement, advanced planning, and updating the IRP parameters and filing requirements.

Q. Please summarize your experiences working with advanced energy companies on issues related to electric utility regulation.

A. I have served as the President of Michigan EIBC and IEI since April 2019. Prior to that, from November 2017 through April 2019, I served as Vice President of Policy Development for Michigan EIBC and IEI. In these roles, I have led the trade organization's work on regulatory and legislative issues. As described above, I have participated in many workgroups at the Commission and written comments in a number of non-adjudicated cases. I also communicate formally and informally with Michigan EIBC member companies about each regulatory proceeding to understand how the advanced energy industry is affected by each proposed rule or case.

Q. What is the purpose of your testimony?

A. The purpose of my direct testimony is to express concerns related to the Company's Commercial and Industrial ("C&I") battery energy storage pilots.

Q. Are you sponsoring any exhibits?

A. Yes, I am sponsoring the following exhibits:

- Exhibit MEIU-2.1: Résumé of Dr. Laura S. Sherman
- Exhibit MEIU-2.2: Discovery response MEIUDE-2.11
- Exhibit MEIU-2.3: Discovery response MEIUDE-2.12

II. C&I BATTERY STORAGE PILOTS

Q. What is the C&I Battery Storage pilot?

A. According to witness Marcus B. Leuker,

> The C&I battery storage pilot is a behind-the-meter (BTM) lithium-ion phosphate battery energy storage system (BESS) that will be located at two customers' sites. It is designed to test the ability to achieve peak demand shaving or shifting during [demand response] DR events.[1]

The Company has already taken delivery of both of the batteries and all of the other major equipment.[2] According to witness Leuker, the skid for the first battery was scheduled to be manufactured and assembled between January and March of 2025 and the second would be manufactured and shipped approximately three months later.[3]

[1] Direct Testimony of Marcus B. Leuker on behalf of DTE Electric Company ("Leuker Direct"), Case No. U-21860, pp. 54–55.

[2] *Id.,* p. 55.

[3] *Id.,* pp. 55–56.

Q. What are the objectives of the pilot?

A. According to witness Leuker, the primary objectives of the C&I battery storage pilot are to:

> (1) Engage with customers to better understand their interest in hosting and potentially operating a BESS; (2) Gain operational experience on battery installation, management, and control interfaces when the system is located at a customer's site as opposed to a Company site; (3) Assess feasibility for sharing asset control between customer and the Company; (4) Evaluate the effectiveness of the BESS to achieve system peak demand reduction when a DR event is called by the Company; (5) Assess customer's actions to achieve demand charge and overall bill reductions; and (6) Facilitate the understanding of multiple energy storage values; compensation models, and the integration of battery storage in wholesale markets to support tariff development as contemplated by the Commission's Order in MPSC Case No. U-21032.[4] [*numbering added*]

Q. Did the Commission previously approve funding for this pilot?

A. In part. In Case No. U-21297, the Commission approved funding for the first battery, but not the second ($1,990,360, or half of the proposed capital spend) because the second customer had not yet been identified.[5] Similarly, in the last DTE general electric rate case (Case No. U-21534), the Commission disallowed spending again for the second battery ($1,990,000) because a second customer had still not been identified.[6] The Commission noted that "the company may seek recovery of these expenditures in its next rate case should the company identify and secure a second participant for the pilot."[7]

[4] *Id.,* p. 55.

[5] December 1, 2023 Order in Case No. U-21297 ("U-21297 Order"), p. 247.

[6] January 23, 2025 Order in Case No. U-21534 ("U_21534 Oder"), p. 175–176.

[7] *Id.,* p. 176.

Q. Has the Company identified and secured a second customer?

A. Yes and no, depending on one's definition of "customer." According to witness Leuker,

> . . . the DR team supported prospect meetings with large businesses and institutions to identify a second participant. The resounding sentiment after the meetings with interested customers was that the post-pilot costs were not palatable given the projected bill savings. An alternative option for the second battery is to leverage it internally at one of DTE's locations. The DR team is currently in the exploration phase of this option and is proposing an asset transfer of the cost of one battery.[8]

Subsequently, in response to a discovery request (Exhibit MEIU-2.2), the Company indicated that it "currently has two committed customers, one being an internal DTE Electric business unit and one an external customer."

Q. What do you conclude from this information?

A. Given the Company's testimony in the last several general rate cases and more recent discovery response in this case (Exhibit MEIU-2.2), it appears to me that the Company has failed for more than two years to find a second C&I business customer for this C&I storage pilot. Despite that reality and despite multiple Commission disallowances of the proposed spending for the second battery and associated equipment, it appears that the Company still purchased the second battery and its associated equipment. Because a real customer could not be secured for the second battery, it appears that the Company simply decided to attempt to justify cost recovery in this case of the previously disallowed $1.9M by conjuring up a second "customer" from an internal DTE Electric business unit.

[8] Leuker Direct, p. 56.

Q. Do you believe that an internal DTE Electric business unit is an appropriate customer for this pilot?

A. No. Deploying the second battery through an internal business unit will not allow the Company to achieve the objectives identified by witness Leuker.[9] Specifically, the Company will not be gaining an understanding of customer interest in hosting and operating a BESS (objective 1); will not be gaining operational experience with an off-site battery (objective 2); and will not be able to assess the feasibility of sharing asset control with an external customer (objective 3). While the Company may be able to assess use of the battery for peak demand reduction (objective 4) and overall bill reductions (objective 5), those learnings may not be transferrable between an internal business unit and any future external C&I customers.

Q. What do you conclude about the funding sought by the Company for this pilot?

A. According to a discovery response (Exhibit MEIU-2.3),

> The Company is seeking to recover in this instant case the $1,990,000 that was denied in case U-21297, inclusive of the 2025 projected cost associated with the second battery of $548,152.

Given that the Company still has been unable to secure a second C&I customer for this pilot, and simply proposes to utilize an internal business unit as a second customer, it does not appear that the circumstances upon which the Commission based its decision in the last two general rate cases (Case No. U-21297 and Case No. U-21534) have changed. As such,

[9] *Id.*, p. 55.

I do not believe that the Commission should approve the proposed spending for the second battery at this time.

Q. Have you previously opposed utility ownership of BTM batteries?

A. Yes. I have strongly opposed utility ownership of BTM batteries, including in the case of a residential battery pilot proposed by the Company in Case No. U-20836.[10] In that case, the Company proposed to enroll 5 MW of customer-sited, utility-owned, BTM batteries in a pilot program where the customer would only have access to the battery for outage events. DTE would otherwise control it. This pilot proposal was similar to a proposal (which I also opposed) from Consumers Energy in Case No. U-20963, except that Consumers Energy proposed both a utility-owned component and a "Bring Your Own Device" customer-owned component.[11]

Q. Why do you believe that utility ownership of BTM customer-sited batteries is inappropriate?

A. Contrary to our economic system's general desire and support for multiple competitors in the marketplace, a utility like DTE Electric is allowed a legal monopoly over aspects of the electric service market because has not been deemed practical or economically optimal to have multiple entities operating in this space, both figuratively and literally. In exchange for not having competitors and to protect consumers from the natural power of a monopoly,

[10] Direct Testimony of Dr. Laura S. Sherman on behalf of The Michigan Energy Innovation Business Council and Institute for Energy Innovation, Case No. U-20836, pp. 33-45.

[11] Direct Testimony of Priya D. Machi on behalf of Consumers Energy, Case No. U-20963.

the Company is subject to regulation by the Commission. Despite being regulated, a monopoly public utility still wields substantial influence through its general access to customers, the customer information it collects, regular (at least monthly) communication with customers, guaranteed cost-recovery and profit, general brand recognition, and socialized cost recovery. This reality provides a public utility a significant advantage over third parties in the marketplace who do not benefit from having a monopoly. For this reason, it is very important that a monopoly public utility not be allowed to intrude and influence the marketplace where competitors do exist to provide an unregulated commodity or service.

For these reasons, in general, I have consistently recommended that the Commission follow the prudent example of the New York Public Service Commission ("NYPSC"). The NYPSC imposed a general policy of utility exclusion from BTM markets but permitted certain focused and limited exceptions to that rule, which were intended to be facilitative of, rather than competitive with, the unregulated market. Specifically, the NYPSC found that utility ownership may be permitted in the following circumstances:

> 1. Procurement of [distributed energy resources] has been solicited to meet a system need, and a utility has demonstrated that competitive alternatives proposed by non-utility parties are clearly inadequate or more costly than a traditional utility infrastructure alternative;
>
> 2. A project consists of energy storage integrated into distribution system architecture [referring to systems on utility property];

3. A project will enable low- or moderate-income residential customers to benefit from [distributed energy resources] where markets are not likely to satisfy the need; and

4. A project is being sponsored for demonstration purposes.[12]

Q. What did the Commission decide in those previous cases regarding the proposed residential BTM battery storage pilots?

A. In Case No. U-20836, the Commission denied DTE Electric's residential BTM battery storage pilot, stating:

> Accordingly, the Commission adopts the ALJ's findings and conclusions and rejects the residential battery pilot. The Commission is very supportive, in general, of utilities implementing residential battery pilots, and is eager to see development of innovative programs in this area. The Commission favors some elements of DTE Electric's residential battery proposal, for example, the income-eligible aspect where customers receive batteries at no cost, but would like to see changes in other elements, such as broader benefits to participants, the company-owned batteries requirement, ineligibility of solar customers, and the narrow focus on the provision of back-up power and limited emphasis on company learnings as opposed to a broader focus on customer benefits. The Commission finds the intervenors' comments persuasive, as a whole, and notes concerns about the utility inserting itself into the home battery market in a manner that would, perhaps, unfairly inhibit private sector competition. The Commission agrees with the Staff's comment that customers would receive better price signals through third-party ownership of batteries because there would be no program costs subsidized by non-participants. . . .[13]

[12] New York Public Service Commission, Docket No. 14-M-0101, "Order Adopting a Regulatory Policy Framework and Implementation Plan," February 26, 2015, available at https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={0B599D87-445B-4197-9815-24C27623A6A0}. The NYPSC later reaffirmed these principles: *See* NYPSC, Docket No. 18-E-0130, Order Establishing Energy Storage Goal and Deployment Policy, December 13, 2018, pp. 43–45, available at https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7BFDE2C318-277F-4701-B7D6-C70FCE0C6266%7D.

[13] November 18, 2022 Order in Case No. U-20836 ("U-20836 Order"), pp. 356–357.

In Case No. U-20963, the Commission also rejected Consumers Energy's proposed residential BTM battery pilot. In doing so, the Commission highlighted a number of concerns:

> However, while a pilot to utilize battery storage as back-up for resiliency service is a novel proposal, the Commission declines to adopt the company's proposal at this time. The Commission notes several concerns with the pilot as proposed, including the fact that rather than seeking to value the full range of benefits batteries can provide, the pilot as proposed limits a participating customer's utilization of the battery system only to providing back- up power in the event of a power outage, while also failing to provide for the range of other benefits the systems can offer to both participating customers and the company's broader customer base. The Commission agrees with the ALJ that it would like to see the company work with stakeholders and come back with a more refined proposal.[14]

Q. What recommendations do you have for the future of the C&I Battery Storage pilot?

A. First, as stated above, although the Commission has already approved the spending for part of this pilot, I recommend that no further spending for the second battery and its associated equipment be approved in this case. Second, given both the difficulties encountered by DTE in this pilot and my concerns stated above with respect to utility ownership of BTM batteries, I recommend that the Commission not approve any future similar pilot or expansion of this pilot to a full program. Finally, moving forward, I believe that the Commission should encourage the Company to focus on rate design changes or pilots that can benefit a larger group of customers without utility-ownership of BTM batteries.

[14] Michigan Public Service Commission, Case No. U-20963, "Order in the matter of the application of Consumers Energy Company for authority to increase its rates for the generation and distribution of electricity and for other relief," December 22, 2021, pp. 323–324.

Q. Have C&I BTM battery storage projects been successful in other areas of North America?

A. Yes, several North American markets have effectively attracted C&I BTM battery energy storage systems.[15] There are different approaches and programs that have successfully encouraged C&I BTM battery storage, which I describe in more detail below, but a common element across those markets is the role of third-party developers working directly with the C&I customers.

In my opinion, the challenges the Company has encountered trying to identify a second customer to participate in the C&I Battery Storage pilot usefully illustrate that a pilot that reserves most of the benefits from the battery storage system to the utility will fail. In contrast, when working with a customer to design a BTM battery solution, and competing with other providers, third-party developers are necessarily focused on the optimizing the benefits for the customer. Given appropriate market signals, these customer-owned C&I batteries can still provide the same benefits to the grid and the utility.

Q. What policies have made C&I BTM battery storage projects successful in other areas of North America?

A. There are a number of rate design, utility program elements, and incentive structures that have made C&I BTM battery energy storage projects successful.

[15] McNamara, W., Passell, H., and Olinsky-Paul, T., Clean Energy States Alliance and Sandia National Laboratories, "States Energy Storage Policy: Best Practices for Decarbonization," February 2023, available at https://www.cesa.org/resource-library/resource/states-energy-storage-policy-best-practices-for-decarbonization/.

In Ontario, all electric customers pay a Global Adjustment ("GA") charge,[16] but C&I customers with more than 5 MW of load can reduce their GA charge through a load management program called the Industrial Conservation Initiative ("ICI").[17] The ICI was designed to help the province defer the need for investments in new electricity infrastructure that would otherwise be needed by incentivizing eligible C&I customers to reduce demand during peak periods.[18] C&I customers who participate in the ICI pay a GA charge based on their contribution to the top five peak hours of energy use ("Coincident Peaks" or "CPs") in Ontario over a 12-month base period (May 1 to April 30), and are referred to as "Class A" customers. The Independent Electricity System Operator of Ontario ("IESO") calculates and publishes peak demand information to help customers identify when one of those five peak hours may occur to ensure that Class A customers have the ability to appropriately reduce their demand or switch load to a BTM battery.[19] Given historically high GA charges, as detailed by a recent study conducted by researchers from Ryerson University and Amp Solar Group, if a C&I customer can use a BTM battery to decrease load during those five peak hours, it can easily justify the cost of the battery.[20] The ICI not only provides opportunities for customers to save money with batteries, but it

[16] Electricity Act, 1998, Ontario Regulation 429/04, Adjustments under Section 24.33 of the Act, July 1, 2023, available at https://www.ontario.ca/laws/regulation/040429#BK2.

[17] Hydroone, "Industrial Conservation Initiative (ICI)," available at https://www.hydroone.com/business-services/commercial-industrial-generators-and-ldcs/commercial-industrial-customers/industrial-conservation-initiative.

[18] Hydroone, "Industrial Conservation Initiative: Class A Methodology for Billing the Global Adjustment," available at https://www.hydroone.com/businessservices_/industrial-generators-ldcs/Documents/2024_ICI_Presentation.pdf.

[19] IESO, "Peak Tracker," available at https://www.ieso.ca/Sector-Participants/Settlements/Peak-Tracker.

[20] Kadri, A., Mohammadi, F., and Awadallah, M., *Applied Sciences*, "Minimization of Global Adjustment Charges for Large Electricity Customers Using Energy Storage – Canadian Market Case Study," November 30, 2020, vol. 10, issue 23, available at https://www.mdpi.com/2076-3417/10/23/8585.

has also grown so large that the IESO stated in the 2024 Annual Planning Outlook that ICI is one of two load modifiers factored into its load forecast, and that the initiative has "material impacts on the forecasted seasonal peak demand of each year."[21]

Other similar rate designs where C&I charges are set by consumption during a specified number of CPs have led to increases in C&I BTM battery energy storage deployment. For example, in Massachusetts, transmission rates are allocated to each class based on the class's contribution to each month's coincident peak (called the "12 CP" method).[22] Certain utilities, like Eversource Energy ("Eversource"), offer tariffs that price these transmission costs based on the customer's actual electricity use at the time of the system peak.[23] In a recent Eversource general rate case, the Massachusetts Department of Public Utilities required Eversource to expand the option for C&I customers to opt-in to these tariffs (like Eversource's Rate T-5) to all C&I customers.[24] C&I customers who install BTM battery storage systems and enroll in a rate like Eversource's T-5 can reduce their costs by precisely decreasing their load during system monthly CPs and, thereby, lowering their transmission charges. These cost savings can then help justify the upfront costs of the battery storage systems.

[21] Independent Electricity System Operator of Ontario, "Annual Planning Outlook, Ontario's electricity system needs: 2025 – 2050," March 2024, available at https://www.ieso.ca/Powering-Tomorrow/2024/Six-Graphs-and-a-Map-2024-Annual-Planning-Outlook-and-Emissions-Update.

[22] Massachusetts Department of Public Utilities, D.P.U. 22-22, "Order in Petition of NSTAR Electric Company, doing business as Eversource Energy, pursuant to G.L. c. 164, § 94 and 220 CMR 5.00, for Approval of a General Increase in Base Distribution Rates for Electric Service and a Performance Based Ratemaking Plan," November 30, 2022.

[23] *Ibid.*

[24] *Ibid.*

In addition to rate design solutions that encourage C&I battery storage deployment, several states have established utility rebate programs for BTM storage systems. For example, in Illinois, utilities are required to establish tariffs that provide rebates of at least $250 per kWh to customers who install solar plus storage systems for the benefits that those systems provide to the grid.[25] Similarly, the ConnectedSolutions program in Massachusetts provides compensation in exchange for customer battery dispatch (i.e., "pay for performance") at times of peak demand when required by the utility.[26]

III. CONCLUSIONS AND RECOMMENDATIONS

Q. Please summarize your conclusions and recommendations to the Commission.

A. I recommend that the Commission:

- Reject the Company's proposed spending for the second customer in the C&I Battery Storage Pilot;
- Reject any proposed future expansion of the BTM C&I Battery Storage Pilot in its current configuration; and
- Encourage the Company to work with stakeholders to develop new rate designs or pilot programs to deploy C&I BTM battery energy storage systems without utility-ownership of the BTM batteries.

[25] Namara, W., Passell, H., and Olinsky-Paul, T., Clean Energy States Alliance and Sandia National Laboratories, "States Energy Storage Policy: Best Practices for Decarbonization," February 2023, available at https://www.cesa.org/resource-library/resource/states-energy-storage-policy-best-practices-for-decarbonization/.

[26] *Ibid.*

Q. Does that complete your testimony?

A. Yes.

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STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

*****

In the matter of the application of **DTE ELECTRIC COMPANY** for authority to increase its rates, amend its rate schedules and the rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority.	)))))))	**Case No. U-21860**

EXHIBITS OF DR. LAURA S. SHERMAN

ON BEHALF OF

THE MICHIGAN ENERGY INNOVATION BUSINESS COUNCIL,

INSTITUTE FOR ENERGY INNOVATION,

AND

ADVANCED ENERGY UNITED

LAURA S. SHERMAN, Ph.D.

cell: 607.592.3026
laura@mieibc.org

PROFESSIONAL EXPERIENCE:

April 2019 – present **Michigan EIBC/IEI**, Lansing, MI **President**

- Organize and lead a staff of five employees, contractors, and student interns.
- Work with and inform each organization's Board of key decisions, upcoming events, long-term strategy, etc.
- Fundraise and coordinate both organization's annual budgets.
- Represent Michigan EIBC in the media, at the legislature, with regulators, and with the state administration in collaboration with a broad coalition.
- Conduct event planning including for annual conferences, networking events, tours, and legislative networking opportunities.
- Develop regulatory and legislative policy positions to support advanced energy businesses.
- Engage with the Michigan Public Service Commission and Michigan legislature on behalf of member companies.

Oct. 2017-March 2019 **Michigan EIBC/IEI**, Lansing, MI **VP for Policy Development**

- Develop regulatory and legislative policy positions to support advanced energy businesses.
- Coordinate regulatory interventions and engagement in regulatory stakeholder processes among member companies.
- Engage with the Michigan Public Service Commission and Michigan legislature on behalf of member companies.
- Support policy initiatives focused on wind energy, solar energy, electric vehicles, storage, taxation, and corporate purchasing of renewable energy.
- Represent Michigan EIBC in the media, at the legislature, with regulators, and with the state administration in collaboration with a broad coalition.
- Conduct event planning including for annual conferences, networking events, tours, and legislative networking opportunities.

Feb. 2017-March 2019 **5 Lakes Energy**, Lansing, MI **Senior Consultant**

- Research, analysis, communication, and advocacy surrounding complex energy issues.
- Lead wind and solar siting project to address opposition to deployment in coordination with philanthropy, industry, and stakeholders across nine Midwest states.
- Focus areas include renewable energy development, community engagement, stakeholder coordination, business sustainability, and electric vehicles.
- Support newsletter, website, and social media communications.

April 2015-Dec. 2016 **U.S. Senate**, Washington, DC **Legislative Assistant/Policy Advisor**

- Policy advisor to Senator Michael Bennet (D-CO) on agriculture, energy, environment, land, and natural resource issues.
- Legislative topics included: farming and ranching, public land conservation and management, water policy, energy development, renewable energy including energy tax incentives and transmission permitting, energy efficiency, endangered species, climate change, sportsmen's issues, environmental pollution and regulations, air quality, and biofuels.

- Drafting legislation; building coalitions; negotiating policy solutions; writing speeches; staffing the Senator at hearings of the Agriculture and Finance Committees.

2014-2015 **U.S. Senate**, Washington, DC **AAAS Congressional Science Fellow**

- Competitively selected AAAS Fellow sponsored by the American Geophysical Union. Served in the Office of Senator Michael Bennet (D-CO).
- Drafting legislation; helping to facilitate political coalitions; meeting with constituents; interacting with federal agencies; delivering policy briefings and recommendations.

2012-2014 **University of Michigan**, Ann Arbor, MI **Postdoctoral Research Fellow**

- Successfully obtained competitive grant funding for novel method to track air pollution from power plants and metal smelters into rainfall across the Great Lakes region.
- In collaboration with epidemiologists, developed and utilized new methods to assess the sources and pathways of human exposure to mercury pollution.
- Published five manuscripts; presented talks and organized scientific sessions at national and international conferences.

2007-2012 **University of Michigan**, Ann Arbor, MI **Graduate Researcher**

- Competed for and received National Defense Science and Engineering Graduate Fellowship and Graham Environmental Sustainability Institute Doctoral Fellowship.
- Developed groundbreaking methods to "fingerprint" mercury pollution from coal-fired power plants and trace it into rainfall, lake sediments, and fish.
- Published eight manuscripts, was interviewed for "The Environment Report" on NPR and general-circulation science magazines, presented research at national and international conferences.
- Ph.D. dissertation received university-wide ProQuest Distinguished Dissertation Award and departmental John Dorr Graduate Academic Achievement Award.

2005-2007 **Massachusetts Institute of Technology**, Boston, MA **Research Scientist**

- Found evidence for early life on Earth in ancient rocks. Published two manuscripts.

SERVICE & LEADERSHIP:

2021-present **Board Member** of Zero Emission Transportation Association Education Fund Board
2020-present **Board Member** of University of Michigan Earth and Environmental Sciences Alumni Board
2019-2020 **Board Member** of Advancing Women in Energy
2017-2019 **Communications Chair** for Advancing Women in Energy
2013-2014 **Supported** the Ann Arbor Energy Commission on community solar projects
2009-2014 **Peer reviewer** of more than 20 scientific manuscripts
2009 **Initiator and organizer** of new departmental seminar series, University of Michigan
2008-2010 **President** of department student organization (GeoClub), University of Michigan
2008 **Lead organizer** of Michigan Geophysical Union Poster Conference
2007-2008 **Department Steward** to Graduate Employees Union, University of Michigan

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EDUCATION:

Ph.D. 2012 Earth and Environmental Sciences, **University of Michigan** (GPA: 8.837 out of 9.0)

B.S. 2005 Geological and Environmental Science, **Stanford University** (GPA: 4.007 out of 4.33)

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-2.11

Respondent: M. Leuker

Page: 1 of 1

Question: 11. Based on Mr. Leuker's testimony in response to Q99, please confirm that DTE currently has only one customer committed to participating in its C&I Battery Storage pilot program.

Answer: The Company currently has two committed customers, one being an internal DTE Electric business unit and one an external customer.

Attachment: *None*

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

*****

In the matter of the Application of **DTE ELECTRIC COMPANY** for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority.	)))))))	**Case No. U-21860**

DIRECT TESTIMONY OF JOHN D. ALBERS

ON BEHALF OF

THE MICHIGAN ENERGY INNOVATION BUSINESS COUNCIL,

INSTITUTE FOR ENERGY INNOVATION,

AND

ADVANCED ENERGY UNITED

Table of Contents

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. My name is John D. Albers. My business address is 1801 Pennsylvania Avenue NW, Suite 410, Washington, DC 20006.

Q. By whom are you employed and in what capacity?

A. Since October of 2023, I have been employed by Advanced Energy United, Inc. ("United") as the Director overseeing regulatory policy for the central states where United is active. This includes Illinois, Michigan, Indiana, and Wisconsin.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the Michigan Energy Innovation Business Council ("Michigan EIBC"), the Institute for Energy Innovation ("IEI") and United, collectively referred to as "MEIU."

Q. Did you prepare or direct the preparation of this testimony?

A. Yes.

Q. Please describe your background.

A. I earned a Bachelor of Arts in Political Science from Illinois State University in 1994 and Juris Doctorate from the University of Illinois College of Law in 1997. I have been admitted to practice law in the State of Illinois since 1997.

In February of 1998 I joined the Illinois Commerce Commission ("ICC") as an Administrative Law Judge and presided over nearly every type of public utility matter that came before the ICC until I left in 2015. Issues I gained experience with include, but are not limited to, rate design, cost recovery, interconnection, metering, energy procurement, renewable energy credit ("REC") procurement, and distributed generation ("DG"). Over the years, I took on increasing responsibility, including overseeing informal agency workshops, testifying on behalf of the agency in legislative hearings, and recommending agency positions on proposed legislation.

After leaving the ICC, I practiced law until early 2022, representing and advising individuals, small and large businesses, small utilities, and state and national not-for-profit organizations on various matters pertaining to renewable energy, infrastructure siting, utilities, distributed generation, tariffs, and other issues. I frequently represented clients in matters before the ICC. During this period, I also worked part-time as a contract real estate developer for IPS Solar securing leases and permits for community solar projects in Illinois.

From March of 2022 until August of 2023, I oversaw SunPower Corporation's policy and strategy efforts in the Midwest. SunPower was a national seller of residential rooftop solar energy systems. In this role I educated state utility regulatory commissioners and legislators and advocated for policies that would improve and expand the market for residential solar installations.

In my role at United, I advocate for policies at state utility regulatory commissions that enable greater deployment of advanced energy technologies with the ultimate goal of powering our economy with clean energy. This requires understanding member interests and priorities. Recent areas of interest include siting larger distributed energy resources ("DERs"), interconnection of both large and small DERs, as well as electric vehicle charging stations, aggregation of DERs as part of virtual power plants ("VPP"), large load tariffs, decarbonization of the natural gas distribution system, and better planning and coordination by and between electric and gas utilities. My work experience and education are set forth in detail in my resume, attached as Exhibit MEIU-3.1.

Q. Are you representing MEIU as legal counsel as well?

A. No. I am not representing MEIU as legal counsel and am not testifying as an attorney. MEIU will present its legal arguments in its briefs.

Q. Have you previously testified before the Michigan Public Service Commission ("Commission")?

A. Yes, on three occasions. I previously offered testimony in Case No. U-21585, concerning Consumers Energy Company's ("Consumers") application to increase its electric rates. My testimony addressed Consumers' proposed DER management system ("DERMS") and the need to maintain a proper inventory of equipment with long-acquisition lead times. I also offered testimony in Case No. U-21375, concerning DTE Electric Company's ("DTE") voluntary green pricing ("VGP") program, and specifically whether the Commission should require DTE to purchase RECs from customers with DG systems. Last

but not least, I offered testimony in Case No. U-21859 regarding the tariff terms and conditions governing service to large load customers in Consumers' territory.

Q. Have you previously testified before other state public utility commissions?

A. Yes. I offered testimony in 2022 on behalf of the Joint Solar Parties in ICC Docket No. 22-0036 regarding net metering. I also testified in 2024 on behalf of United in ICC Docket No. 22-0486 pertaining to data access, a proposed spare transformer program, and DERMS. At the Indiana Utility Regulatory Commission, I offered testimony in 2024 on behalf of United in an investigation (Cause No. 46043) concerning whether DER aggregators are public utilities under Indiana law.

Q. Are you offering any exhibits with your testimony?

A. Yes, I am offering the following exhibits:

- Exhibit MEIU-3.1: Résumé of John Albers
- Exhibit MEIU-3.2: Discovery response MEIUDE-2.6 First Solicitation 25 megawatt ("MW") RFP
- Exhibit MEIU-3.3: Discovery response MEIUDE-2.5
- Exhibit MEIU-3.4: Discovery response MEIUDE-2.19

Q. What is the purpose of your testimony?

A. The purpose of my direct testimony is to respond to DTE's efforts to procure demand response ("DR") resources under the settlement agreement approved by the Commission in DTE's most recent integrated resource plan proceeding, Case No. U-21193. I will also

respond to DTE's concerns about further lifting the ban on aggregating DERs and briefly comment on DTE's plans related to DERMS.

II. DR PROCUREMENT

Q. Please describe DTE's obligation to procure DR resources under the settlement agreement in Case No. U-21193.

A. On July 26, 2023, in Case No. U-21193, the Commission approved a settlement agreement intended to resolve all outstanding issues in that proceeding. In the context of DR, the parties agreed to and the Commission approved the following:

a. DTE Electric DR targets are established as follows: 2023 – 855 MW, 2024 – 873MW, 2025 – 881 MW, 2026 – 900 MW, 2027 – 906 MW (ICAP based on summer season). These targets will be used in the financial incentive mechanism calculation agreed upon in Case No. U-20793.
b. DTE Electric will target 150 MW of new DR through a competitive bidding process for MISO-qualified Zonal Resource Credits for contract terms of three or more years by the 2027/28 Planning Year. The Company will issue two 25 MW solicitations, one in 2024 and one in 2025, for the 2025/2026 and 2026/2027 Planning Years respectively, and in 2026 a 100 MW solicitation for the 2027/2028 Planning Year. The Company will host a meeting with interested bidders prior to issuance of the RFPs. The competitively bid DR will count towards the achievement of the above DR targets. In the event the Company is entitled to a financial incentive, the financial incentive will be applied to all non-capital spending, including that associated with the procurement of Zonal Resource Credits.
c. DTE Electric's proposed preapproval capital costs for demand response programs are set forth in the Company's Exhibit A-7.3 as filed in this IRP.[1]

[1] July 26, 2023 Order in Case No. U-21193, Filing No. U-21193-0527, Exhibit A - Settlement Agreement, p. 13.

Q. Has DTE complied with its agreement to procure DR resources for the 2025/2026 and 2026/2027 Planning Years?

A. Witness Leuker describes DTE's issuance of a request for proposal ("RFP") in June 2024 for 25 MW for the 2025/2026 Planning Year and receiving no bids.[2] In preparation for the issuance of an RFP for 25 MW for the 2026/2027 Planning Year, witness Leuker describes seeking feedback from certain aggregators on ways to improve the second DR solicitation. Witness Leuker indicates, however, that the Company received no feedback from this request.[3]

Q. Do you have any suggestions for DTE to improve its chances of procuring the DR resources it agreed to procure through the settlement agreement in Case No. U-21193?

A. Yes, after reviewing DTE's June 2024 RFP, attached as Exhibit MEIU-3.2, I have a few suggestions. First, I recommend that DTE not attempt to procure 25 MW of capacity from a single aggregator, as set forth on page 14 of the RFP. Nothing in the settlement agreement dictates that all 25 MW in each of the first two procurements (or the 100 MW in the third procurement) must come from a single aggregator. Given its reported inability to procure the full capacity amount from one aggregator, it may be easier for DTE to meet its obligation to procure DR resources if it does not require a single aggregator to provide all 25 MW of capacity. Multiple aggregators providing lesser amounts of DR capacity may

[2] Direct Testimony of Markus Leuker on behalf of DTE Electric Company, Case No. U-21860 ("Leuker Direct"), p. 48.
[3] *Ibid*.

still not collectively bid the total capacity DTE seeks, but the results will likely be better than what DTE has experienced to date.

If DTE allows more than one aggregator to participate, it could also consider engaging an "aggregator of aggregators" capable of integrating and managing those aggregators that successfully bid DR resources. Under this model, the aggregator administering the program for the utility can interface with the "edge" DERMS (described further below) typically employed by individual aggregators, including original equipment manufacturers, which would spare the utility from having to directly manage relationships with multiple aggregators. An "aggregator of aggregators" could also assist with dispatching and measuring capacity when events are called. The "aggregator of aggregators" model is already being successfully used. One example is the ConnectedSolutions DER aggregation program available to customers of specific utilities in Connecticut, Massachusetts, New York, and Rhode Island. National Grid chose EnergyHub to administer ConnectedSolutions for its customers,[4] which includes multiple aggregators working on behalf of DER owners.

Second, I note that the RFP, at page 7, states that DTE expects the aggregator to be the Midcontinent Independent System Operator ("MISO") Market Participant ("MP"), rather than DTE. Table 1 in the RFP further lays out the roles and responsibilities of DTE and the aggregator, with the aggregator being responsible for the vast majority of tasks and DTE largely in the role of a reviewer. DTE may be more likely to receive bids if it acts as

[4] See https://www.energyhub.com/news/national-grid-bring-your-own-device-demand-response-program

the MISO MP and aggregators are responsible for submitting all necessary site-specific information to DTE. I recommend that DTE consider this shift in responsibility.

Third, on page 20, the RFP indicates that only those organizations explicitly invited by DTE may submit a bid. DTE witness Leuker testifies that DTE invited 14 "aggregators" to bid in response to the 2024 IRP.[5] A discovery response in this case (Exhibit MEIU-3.3) contains a list of the 14 entities invited to bid. I am concerned that some of the entities on the list are not aggregators and may be redundant. For example, "MEIBC" on the list appears to refer to Michigan EIBC, one of the organizations I am testifying on behalf of. Michigan EIBC is a state trade association, not an aggregator of DR resources. Similarly, assuming "AEM-Alliance" refers to the Advanced Energy Management Alliance, this organization is also a trade organization and not an aggregator.[6] I also note that Ecobee is part of the same organization as Generac Power Systems.[7] Even if the RFP contained more favorable terms, I do not know if Generac Power Systems and Ecobee could both be expected to submit a bid. How DTE identified the 14 entities as "aggregators" or why it thought any of them respond to RFPs is not clear. But more important than these observations regarding individual entities on the list, I recommend that DTE not limit its RFP to only invited bidders. Sharing the RFP broadly is more likely to result in responses, particularly if my other suggestions are adopted.

[5] Leuker Direct, p. 48.
[6] See https://aemalliance.org/
[7] See https://investors.generac.com/news-releases/news-release-details/generac-announces-closing-its-acquisition-ecobee-inc

Fourth, it is not clear from the RFP if DTE is contemplating a pay-for-performance model. In other words, it appears that DTE is asking bidders to propose a price at which each would provide 25 MW of seasonal DR capacity over three years, regardless of customer performance. Aggregators are more likely to participate in a pay-for-performance program because customers who own DERs are more likely to participate when an event is called when there is an incentive to do so. I offer examples below of successful aggregation programs using a pay-for-performance model. But as I said, it is not clear what DTE is contemplating in this regard.

Q. Are there other ways to improve the odds of success of DTE's DR RFPs?

A. Yes, there is at least one more way, but it is not solely within DTE's control. As Mr. Leuker notes in his testimony, there is currently a ban on resources smaller than 1 MW participating in DR aggregation.[8] I encourage the Commission to lift the ban as soon as possible and allow smaller customers to enroll their DERs in aggregation programs at both the wholesale and retail market level in order to bring the full potential of such resources to the Michigan grid.[9] For its part, I urge DTE to support this change, which, if the aggregator as Market Participant requirement remains in place, would make it easier for DTE to achieve its obligation under the settlement agreement in Case No. U-21193.

[8] Leuker Direct, p. 46.
[9] See December 21, 2022 Order in Case No. U-21099, p. 34–40.

III. EXPANDING DR AGGREGATION OPPORTUNITIES

Q. Mr. Leuker expressed concern about lifting the ban on smaller customers participating in DR aggregation. Do you have any comment on that?

A. Yes. According to Mr. Leuker, DTE is concerned that completely lifting the ban may negatively impact system reliability given DTE's role as the supplier of last resort. DTE apparently fears that it will not have sufficient insight into the availability of DR on its system, which could impact its ability to forecast peak load. Mr. Leuker also questions the legitimacy of aggregators' commitments to provide DR resources. He expresses concern for customer understanding of DR programs and the potential for double counting resources. Mr. Leuker raises data security as another area of concern.[10] He concludes that there is no need for aggregators because DTE can provide DR resources without them.[11]

Since DTE does not seem to be familiar with working with aggregators, I can understand its resistance. Notably, its apparent lack of familiarity with aggregators calls into question its conclusion that aggregators are unnecessary. As described below, experience elsewhere indicates that aggregators can provide a reliable, secure, and cost-effective service for the benefit of individual customers and utility ratepayers overall. First and foremost, however, I want to emphasize that MEIU support the implementation of reasonable and practical consumer protections as well as protections against double counting resources. I am confident that the Commission can address issues of consumer protection as part of any process to lift the ban on aggregation of small customer DERs. Such consumer protections would include data security issues. Also, regional transmission organizations and other

[10] Leuker Direct, p. 47.
[11] *Id.*, p. 48.

jurisdictions already take steps to prevent double counting, so this is not a new wheel to be invented.[12]

The best evidence of aggregators acting as reliable partners comes from examples of successful aggregation programs. One such example includes Arizona Public Service Company's ("APS") Cool Rewards VPP. The Cool Rewards program is a voluntary, opt-in smart-thermostat program that pays customers to voluntarily conserve energy during the times of day when demand is highest. Customers receive $85 in bill credits the first year they enroll, and $35 the following years they participate. APS reports that with over 90,000 thermostats currently enrolled in the Cool Rewards program, adjustments to thermostats result in 140 MW of energy demand taken off the grid.[13] Such load reductions are voluntarily provided even at relatively modest incentive payments.

A second example arises from a specific event during a heat wave in the Northeast in 2024. On June 20, 2024, during the third day of a heat wave in New England, residential participants in ConnectedSolutions shaved peak demand by 375 MW between the hours of 5-8pm ET. Participating DERs included smart thermostats as well as behind the meter batteries.[14] Smart thermostat owners receive a $50 or $100 enrollment incentive (depending on income) and a $20 annual reward for every thermostat connected to a central air conditioner or heat pump. Thermostat owners are free to opt out of events by simply

[12] For instance, PJM addresses double counting in its Open Access Transmission Tariff, Attachment K- Appendix, Section 1.4B, available at: https://agreements.pjm.com/oatt/40137. MISO addresses double counting in its Tariff, Section 38.7.A.ii, available at: https://docs.misoenergy.org/miso12-legalcontent/TariffAsFiledVersion.pdf. Other protections exist in MISO's Tariff, Section 38.6.E.

[13] https://www.aps.com/en/About/Our-Company/Newsroom/Articles/On_the_Hottest_Days_APS_Virtual_Power_Plants_Help_Cool_Demand_on_Grid

[14] https://www.wbur.org/news/2024/08/28/virtual-power-plants-eversource-massachusetts-batteries-ev-chargers

changing their thermostat setting.[15] Battery owners receive $275 per kilowatt for a battery's average contribution during summer events and are also free to opt out of specific events.[16] This example demonstrates the sizeable benefits aggregators provide in real situations, even with modest incentive payments (at least for smart thermostat owners) and the opportunity to opt out during a prolonged heat wave.

A third example occurred in June of this year during another high-temperature period in the Northeast.[17] On the evening of June 24, solar and battery installer and aggregator Sunrun dispatched more than 340 MW from customer-sited batteries.[18] On the same day, EnergyHub managed DERs on behalf of owners to shed 900 MW of peak load and shifted 3.5 gigawatt-hours of energy away from the highest-demand periods.[19] Clearly, aggregators are making meaningful contributions to the electric grid when needed most.

Finally, I recognize that Mr. Leuker references allegations of improper behavior against two aggregators in his testimony.[20] I caution the Commission against relying on such a small number of instances to foreclose any chance of allowing aggregators to serve smaller customers within the Michigan market, bringing business models and offerings different from what utilities are willing to provide, particularly before even considering consumer protections.

[15] https://www.masssave.com/en/residential/programs-and-services/connectedsolutions/connectedsolutions-thermostat
[16] https://www.masssave.com/-/media/Files/PDFs/Save/Residential/ma_resi_battery_program_materials-2-20-25.pdf
[17] https://www.utilitydive.com/news/virtual-power-plants-helped-save-the-grid-during-heat-dome/753247/
[18] https://investors.sunrun.com/news-events/press-releases/detail/344/sunrun-dispatches-more-than-340-megawatts-of-power-in
[19] https://www.linkedin.com/posts/energyhub_thermostats-ev-batteries-activity-7343736809673117696-q4fr/
[20] Leuker Direct, p. 47.

IV. DERMS OPPORTUNITIES

Q. DTE witness Stephen Rademacher describes DTE's plans and investments with respect to deploying DERMS.[21] Do you support DTE's plans?

A. I support the need for some degree of DERMS, but it is not clear to me that what DTE has described is the best option. Specifically, some degree of "Utility DERMS," as Mr. Rademacher describes it,[22] is warranted, but how far the Utility DERMS extends into the distribution system is worth considering. The significance of my concern is apparent when one considers the role of aggregators on DTE's system. Aggregators typically employ some degree of DERMS to manage DERs on behalf of DER owners. DERMS owned and operated by aggregators are sometimes known as "edge" DERMS and "fleet" DERMS. It is important that utilities not attempt to duplicate what aggregators already have. If duplication does occur, it is an unnecessary cost on the backs of customers. Avoidance of some DERMS costs is another advantage of enabling aggregator participation.

Q. Can you describe what you mean by "edge" DERMS and "fleet" DERMS?

A. Yes. As the name implies, "edge" DERMS refers to a DERMS that serves DERs at the edge of the grid, such as building or microgrid management systems.[23] "Fleet" DERMS refers to DERMS that serve a specific grouping of DERs independent of their location. This can include a fleet of EVs, a specific manufacturer's battery energy storage systems,

[21] Direct Testimony of Stephen Rademacher on behalf of DTE Electric Company, Case No. U-21860 ("Rademacher Direct"), p. 94–99.
[22] Rademacher Direct, p. 96.
[23] Ealey, B., "DERMS Terms – Going Beyond the Buzzword," Smart Electric Power Alliance, March 25, 2021, available from https://sepapower.org/knowledge/derms-terms-going-beyond-the-buzzword/

or the DERs under the control of a single aggregator.[24] It is important that an aggregator's edge or fleet DERMS can interface with whatever DERMS DTE plans to deploy.

Q. Is there any indication that DTE has taken into account the compatibility of its DERMS system with those of aggregators?

A. Exhibit MEIU-3.4 appears to indicate that DTE has taken this into account. As the Commission considers DTE's DERMS plans, I encourage the Commission to bear in mind the interoperability of DTE's DERMS with those of aggregators to ensure that exclusion of aggregators is not "baked into" DTE's plans and spending. The Commission should explicitly direct DTE to ensure that such interoperability is prioritized. More specifically, to better understand the scope of DTE's plans, I urge the Commission to require DTE to fully explain how it will coordinate its proposed Utility DERMS with its existing "edge" DERMS as well as the "edge" DERMS of aggregators.

Q. Do you have any other thoughts regarding DTE's DERMS plans?

A. It is important to recognize that DERMS can be a valuable tool to not only manage DERs but also facilitate and advance state policies regarding the adoption of DERs and unlocking their potential to benefit the grid and ratepayers. For this reason, the Commission should pay close attention to how DTE intends to implement DERMS.

[24] *Ibid*.

V. CONCLUSIONS AND RECOMMENDATIONS

Q. Please summarize your conclusions and recommendations to the Commission.

A. I recommend that the Commission:

1. Direct DTE to improve its DR procurement process by:
   a. Attempting to procure smaller increments of DR capacity from multiple aggregators rather than the full obligated amount from a single aggregator;
   b. Not requiring the aggregator(s) to serve as the MISO Market Participant;
   c. Not limiting the RFP to invited aggregators only; and
   d. Utilizing a pay-for-performance model.
2. Closely monitor and direct DTE to implement a DERMS that allows for the full utilization of non-utility owned DERs through third-party aggregation.

Q. Does this conclude your testimony?

A. Yes.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

*****

In the matter of the Application of **DTE ELECTRIC COMPANY** for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority.	)))))))	**Case No. U-21860**

EXHIBITS OF JOHN D. ALBERS

ON BEHALF OF

THE MICHIGAN ENERGY INNOVATION BUSINESS COUNCIL,

INSTITUTE FOR ENERGY INNOVATION,

AND

ADVANCED ENERGY UNITED

JOHN D. ALBERS

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PROFESSIONAL EXPERIENCE

Director, Advanced Energy United, *2023-present*
Monitor and oversee regulatory efforts related to advanced energy technologies in Illinois, Michigan, Indiana, and Wisconsin on behalf of United and assist with legislative and education efforts as needed.

- Develop policy positions in furtherance of goal of a 100% clean energy economy.
- Ensure that member interests are represented in public utility commission proceedings affecting markets for renewable energy, battery storage, electric vehicles, energy efficiency, demand response, virtual power plants, and related advanced energy technologies.
- Draft legislation, testimony, and public comments and oversee preparation of same supporting goal of a 100% clean energy economy.
- Educate regulators, legislators, state agency officials, candidates, and media on the benefits of advanced energy technologies.
- Coordinate efforts among aligned organizations to support opportunities for clean energy to power our economy.
- Oversee engagement and work by outside counsel and consultants.

Policy Advocate, SunPower, Policy & Strategy, *2022-2023*
Monitor and influence legislation, rules, and regulatory proceedings impacting the residential solar and storage markets in the Midwest.

- Represent SunPower in state and national trade associations.
- Educate legislators and regulators on the benefits of solar and storage on the electric grid.
- Draft legislation, testimony, and public comments supporting solar and storage markets.
- Advise sales and products teams on opportunities and challenges from a policy perspective.

Attorney, Shay Law, Ltd. and Westervelt, Johnson, Nicoll & Keller, LLC, *2016-2022*
Advise and represent national and local renewable energy businesses and associations in their pursuit of strategies to achieve regulatory and legislative goals driving sustainable energy alternatives.

- Educate, advise, and represent clients on various matters related to energy and public utilities, including easement, contract, permitting, municipal ordinance, and utility infrastructure issues.
- Prepare witnesses and testimony in Illinois Commerce Commission tariff, rate, and certificate proceedings.
- Educate legislators and regulators through Illinois General Assembly committee testimony and one-on-one meetings.
- Draft legislation and rules to further client objectives and prepare written advocacy fact sheets, briefing papers, memoranda, media releases, and persuasive presentations.
- Consistently monitor utility filings, state legislative action, trade press, and other sources for issues of interest to or potentially impacting clients.
- Convene and collaborate with diverse groups and individuals to support clients in achieving shared goals.

Contract Real Estate Developer, IPS Solar*, 2018-2019 (part-time)*
Work independently to secure sites for and support growth of community solar in Illinois.

- Research suitable sites for solar farms taking into consideration utility service area, proximity of electrical grid and available capacity, topography, and flood plain.

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- Negotiate lease terms and compensation with landowners.
- Educate local authorities and area residents about solar energy and community solar projects.
- Work with local government authorities to obtain necessary permits for projects.

Assistant State's Attorney, Sangamon County State's Attorney, *2018-2019 (part-time)*
Work as the only attorney in a fast-paced short-notice setting to represent the State of Illinois in mental health cases filed in Sangamon County to aid those afflicted with mental illness. Upon being informed of which cases are going to trial, review files, interview physicians, caregivers, family, and law enforcement, prepare witnesses, and prepare arguments for trial scheduled the next day.

Administrative Law Judge III, IV, and V, Illinois Commerce Commission, *1998-2015*
Manage entire trial processes and prepare written decisions related to the electric, natural gas, water, sewer, and telecommunications industries. Based on reputation for being thorough, reliable, impartial, and adept at learning and analyzing new material, advanced quickly to highest ALJ rank. Because of my deep understanding of ICC operations, was recognized within agency as a leader and entrusted with tasks outside typical ALJ duties including leading stakeholder workshops to develop alternative dispute resolution rules and training and mentoring new ALJs on policies, practices, and precedent.

- Rule on and develop policy related to cost recovery, rate design, and service terms and conditions in utility rate cases, tariff proceedings, rulemakings, and other dockets.
- Prepare written decisions summarizing, analyzing, and resolving complex contested issues involving the electric, natural gas, water, sewer, and telecommunications industries, such as the "least cost" location for utility facilities and the use of eminent domain for such.
- Review pending legislation impacting the agency, recommend revisions and agency position, and provide testimony before Illinois General Assembly committees as needed.
- Manage multiple simultaneous complex cases and projects, many with expedited schedules, such as Ameren's petition seeking approval and location of a $1.1 billion 375-mile electric transmission line impacting over 8,400 landowners with a 7½-month deadline.
- Lead multiple hearings in Illinois communities explaining the agency process and facilitating public involvement in matters pending before the agency.

EDUCATION

University of Illinois College of Law, Champaign, IL
Juris Doctor, cum laude

Illinois State University, Normal, IL
Bachelor of Arts in Political Science, summa cum laude, Spanish Minor

DTE ELECTRIC COMPANY

REQUEST FOR PROPOSALS – 2024 DEMAND RESPONSE PROCUREMENT

Issued for Bid June 26, 2024

TABLE OF CONTENTS

1) Glossary

Capitalized terms and abbreviations used in this RFP are defined below:

“ARC” shall mean Aggregator of Retail Customers, that are businesses that combine one or more retail customers and represent those customers’ combined capabilities for demand response in the wholesale markets.

“BPM” shall mean Business Practice Manual, which is a set of manuals designed to provide Market Participants with detailed information regarding how to conduct business in the various markets administered by MISO.

"BTMG” shall mean Behind-The-Meter-Generation, which is a defined term in the Tariff that refers to Behind the Meter Generation participating as a Load Modifying Resource in the MISO markets.

“CBL” shall mean Customer Baseline Load.

"Demand Resource” (per MISO Resource Adequacy BPM) shall mean a resource registered with MISO defined as Interruptible Load or Direct Load Control Management and other resources that result in additional and verifiable reductions in end-use customer demand during an Emergency.

“DTE Electric” or the “Company” shall mean DTE Electric Company, a Michigan corporation and operating electric public utility, and any successor entity thereto, subject to the applicable rules of the MPSC and the FERC.

“IRP” shall mean Integrated Resource Plan.

“LMR” shall mean Load Modifying Resources, as defined in MISO Demand Response Business Practice Manual (BPM), is a Tariff term that refers to resources that have qualified as planning resources, that is, resources that contribute towards the system’s ability to meet the resource adequacy requirement. LMRs consist of two distinct resource types: Demand Resources and Behind the Meter Generation.

“LMR-DR” shall mean Load Modifying Resource - Demand Resource, which is one of the resource types under LMR.

“LMR-BTMG” shall mean Load Modifying Resource-Behind the Meter Generation, which is one of the resource types under LMR.

"MISO" shall mean the Midcontinent Independent System Operator, Inc.

"MP" shall mean Market Participant, a legal entity that is qualified, pursuant to procedures established by MISO to: Submit Bilateral Transaction Schedules; Submit Bids to purchase, and /or Offers to supply electricity in the Day-Ahead and/or Real-Time Energy Markets; Hold Financial Transmission Rights (FTRs) and submit bids to purchase, and /or offers to sell such rights; and Settle all payments and charges with MISO.

"MPSC" shall mean the Michigan Public Service Commission.

"PRA" shall mean Planning Resource Auction, an annual auction held to allow Load Serving Entities an opportunity to meet their obligations for obtaining required capacity for a given Planning Year.

"Proposal" shall mean a Respondent's submittal in response to this RFP.

"Respondent" shall mean an entity that responds to this RFP by submitting a Proposal in accordance with the requirements herein.

"RFP" shall mean this Request for Proposal, the document that publicly opens the competitive business process by describing the Company's needs and seeking responses to fulfill those needs.

"Tariff" shall mean Open Access Transmission, Energy and Operating Reserve Markets Tariff, the FERC-approved set of rules under which MISO operates.

"ZRC" shall mean Zonal Resource Credit, a fungible unit by with the Planning Resource Auction is conducted and means by which MISO members demonstrate they have sufficient capacity to meet Resource Adequacy requirements. A ZRC represents (1) megawatt of deliverable Seasonal Accredited Capacity (SAC).

2) Corporate Introduction and Existing C&I DR

DTE Electric Company (NYSE: DTE) is a diversified energy company involved in the development and management of energy-related business and services nationwide. Its largest operating subsidiaries are DTE Electric Company and DTE Gas Company. Together, these regulated utility companies provide electric and/or gas services to more than three million residential, business, and industrial customers in Michigan.

For more information, please visit our website at www.dteenergy.com

3) Purpose and DR Resource Characteristics

The purpose of this RFP is for the Company to solicit a three-year contract for 25 MW of Summer DR that will be bid into MISO's Planning Resource Auction (PRA). The three-year contract includes:

- 25 MW of 2025 summer DR for MISO Planning Year (PY) 2025/2026
- 25 MW of 2026 summer DR for MISO Planning Year (PY) 2026/2027
- 25 MW of 2027 summer DR for MISO Planning Year (PY) 2027/2028

This section presents the background and desired characteristics for the DR solicitation.

3.1 Background

Per the July 2023 settlement agreement,[1] the Company will target 150 MW of new DR through a competitive bidding process for MISO-qualified Zonal Resource Credits (ZRCs) for contract terms of three or more years by the 2027/28 Planning Year. The Company will issue:

- 25 MW solicitation in 2024 for the 2025/2026 Planning Year (i.e., this RFP)
    - MWs from this first solicitation need to be procured in time for the 2025/26 MISO Planning Resource Auction (PRA) to be held in February 2025.
- 25 MW solicitation in 2025 for the 2026/2027 Planning Year
    - MWs from the second solicitation need to be procured in time for the 2026/27 MISO PRA to be held in February 2026.
- 100 MW solicitation in 2026 for the 2027/2028 Planning Year
    - MWs from the third solicitation need to be procured in time for the 2027/28 MISO PRA to be held in February 2027.

The competitively bid DR will count towards the achievement of the above DR targets.

The current RFP is for the first 25 MW solicitation required under the Settlement Agreement.

[1] MPSC IRP Case No. U-21193 S T A T E O F M I C H I G A N (site.com)

3.2 DR Resource Characteristics

The new DR being procured through the competitive bidding process will be registered as a Load Modifying Resource (LMR). All bidders must adhere to the MISO definition and characteristics of LMR. These resource characteristics are listed below:[2]

- Acquired ZRCs will be accredited by MISO for commensurate load reduction of a LMR per the MISO Tariff
- LMRs commit to respond to any MISO Emergency when called upon by MISO.
- The Company can use LMR capacity to meet the Planning Reserve Margin Requirement (PRMR).
- Acquired LMR resource will qualify under LMR-Demand Response (LMR-DR) and not under LMR-Behind the Meter Generation (LMR-BTMG)[3], which MISO defines as follows:
    - LMR-DR is registered with MISO and defined as Interruptible Load or Direct Load Control Management and other resources that result in additional and verifiable reductions in end-use customer demand during an Emergency.
    - In scenarios where LMRs represent an interruptible program that disconnects the load from the grid and activates a local backup generator (at the customer site) to provide power on an asynchronous island, independent from the grid, a DR registration may be used.
    - Consequently, customers can either curtail load and/or shift load to local asynchronous backup generators. The operation of these generators is subject to EPA's National Emissions Standards for Hazardous Air Pollutants (NESHAP) standards for stationary reciprocating internal combustion engines (RICE).

3.3 Customer Eligibility

Eligible customers must meet the following criteria:

- Current DTE Electric's Full Service or Electric Choice customer
- Not currently enrolled in any other DR program or tariff, including DTE Electric's Interruptible Tariffs

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[2] MISO Resource Adequacy Business Practice Manual, BPM-011-r28, (Manual No.011, effective May 31, 2023); MISO Demand Response Business Practices Manual No. 026", effective date Oct-01-2023 https://www.michigan.gov/mpsc/commission/workgroups/demand-response-aggregation#:~:text=The%20order%20lifted%20the%20prohibition,of%201%20megawatt%20(MW)

[3] LMR-BTMG exclusively relies only on a generator to accomplish the load reduction and remains synchronously connected to the grid, or injects onto the grid, and must register as a BTMG. It is not included in the current procurement.

Customer eligibility is defined in the Michigan Public Service Commission (PSC) December 21, 2022 Order in Case No. U-21099[4], which states that enrolled load of commercial and industrial (C&I) customers' needs to be minimum of 1 MW. The Commission Order states:

> "the Commission is setting a temporary size minimum of 1 MW of enrolled load for C&I customers registering load with ARCs. This threshold aligns with the "extra-large" segment of C&I customers in the most recent MI Demand Response Potential Study and includes those C&I customers that would be similarly situated to retail open access customers that already have the option to participate in DR aggregation."

3.4 Aggregator and Company Roles and Responsibilities

Table 1 below provides brief descriptions of aggregator and Company roles and responsibilities across the business functions required for program implementation. The Company expects the aggregator to be the MISO Market Participant (MP) and provide ZRCs to the Company.

Table 1: Aggregator and Company Roles and Responsibilities

Business Functions	**Roles and Responsibilities**	
	Aggregator	*Company*
1. MISO Market Participant (MP) Registration	• Aggregator registered as a MP as an Aggregator of Retail Customers (ARC) • Shares pre-registration data with the Company and fulfills all market registration requirements[5] • Notifies the Company in advance of test events (MISO-initiated, Company-initiated, or self-scheduled) and shares test event site-specific performance data with the Company	• Reviews pre-registration data • Reviews test event site-specific performance data
2. Technology Provision	• Responsible for all aspects of technology provision (i.e., head-	• No responsibility

[4] https://mi-psc.my.site.com/sfc/servlet.shepherd/version/download/0688y000005iCS5AAM
[5] Per Section 38.2.2 of the MISO tariff. Market registration details available in MISO's "Market Registration Business Practice Manual" and Section 3 of the "Demand Response Business Practice Manual" and in "Resource Adequacy Business Practice Manual".

Business Functions	Roles and Responsibilities	
	Aggregator	*Company*
	end platform to controlled equipment)	
3. Program Marketing and Customer Outreach	• Responsible for all program marketing and customer outreach • Contract for customer participation is between ARC and customer • Responds to DTE's request for review of program marketing materials and queries related to customer outreach	• DTE may review marketing materials and request information related to customer outreach
4. Customer Data Access and Enrollment	• Executes data access letter of authorization approval with customer • Submits customer data access letter of authorization approval request to the Company • Enters customer information and data provided by the Company into MISO's Demand Side Resource Interface (DSRI) system for the Company's review and validation • Finalizes customer registration in DSRI after the Company's validation	• Verifies data access letter of authorization approval, if necessary[6] • Reviews and validates customer eligibility and provides verification to MISO of registration eligibility • Company may audit DSRI submittals
5. Event Notification	• Aggregator notifies customers of LMR-DR events (based on MISO event triggers)	• No role

[6] The Company expects to receive data directly from the aggregator for pre-registration (i.e., confirmation of customer peak load) and site-specific test event performance (i.e., calculated load reduction); otherwise, the Company expects to receive all other data from MISO. In certain instances, a data access letter of authorization may be warranted if additional customer data is needed directly from the Company.

Business Functions	Roles and Responsibilities	
	Aggregator	*Company*
6. Settlement	• Performs settlement calculations and submits for the Company's review (per requirements and specifications in MISO BPMs) • Submits customer baseline data to MISO • Submits settlement data for MISO approval and payment	• Reviews and validates aggregator settlement calculations before MISO approves settlement
7. Customer Incentive Payment	• Issues incentives to customers	• No role
8. EM&V	• Provides program performance data for EM&V	• Can undertake third-party EM&V, if the Company so chooses
9. Customer Satisfaction	• Report any customer satisfaction concerns or issues to the Company • Respond to any Company queries regarding customer satisfaction	• Assess customer satisfaction with program through the Company's account managers

3.5 Performance Requirements

The Company will pay the aggregator based on delivered ZRCs. These payments will be provided as monthly capacity payments, based on the actual delivered ZRCs.

The Company requires aggregators to conduct a test event (self-scheduled, Company-initiated, or MISO-initiated real power test events), notify the Company in advance that the event will be conducted, and provide the site-level performance data from this test event to the Company. In the event that the aggregator fails to provide this data or the data cannot be validated, the Company reserves the right to require the procurement of additional MW to satisfy the full contracted amount. In the event the aggregator does not procure the additional MW, the Company reserves the right to cancel the contract and remove the aggregator from any future solicitations.

A Market Participant utilizing LMRs to meet Resource Adequacy Requirements will be subject to the penalties described in Section 69A.3.9 of the Tariff if the LMR is included in the Market Participant's response to Scheduling Instructions and the LMR fails to respond.

The aggregator will act as the Market Participant and be subject to all relevant MISO non-performance penalties for LMRs. An excerpt of the relevant penalties is provided below, see MISO's tariff: Section 69A.3.9 of Module E-1, for full description and conditions of penalties.

> "The Transmission Provider shall assess the responsible Market Participant the costs that were otherwise incurred to replace the deficient Planning Resource at the time the Market Participant's LMR is called upon by the Transmission Provider and does not respond in full or in part consistent with the Market Participant's response to MISO's Scheduling Instructions."[7]

In the event of underperformance (i.e., actual realized MW of less than 90% of procured capacity) during a test event, the Company requests written documentation of the reasons for underperformance and plans for achieving the procured amount. In the event of significant underperformance (i.e., actual realized MW of less than 50% of procured capacity) during a test event, the Company reserves the right to pay the aggregator at the actual availability amount (rather than the procured capacity) until the aggregator conducts another test or MISO emergency event with availability of at least 50% of procured capacity.

The Company reserves the right to penalize the aggregator if scheduled MWs are consistently below the procured amount during peak conditions (i.e., monthly scheduled average during peak hours of less than 90% of procured MW) by up to 100% of the full contracted price ($/kW-season) multiplied by the average difference. The Company reserves the right to terminate the contract with the aggregator if scheduled MWs are significantly below (i.e., less than 50%) the procured amount during peak conditions in more than two months within the contract duration. Peak conditions will be defined with the selected bidder as part of contracting.

If MISO disqualifies a ZRC after the Company has paid the aggregator for that ZRC, the aggregator must refund payment to the Company. In addition, if the aggregator is penalized by the Federal Energy Regulatory Commission (FERC), any ISO including MISO, or other LSE for underperformance during called events or unjust practices, the contract with the aggregator will be immediately terminated and the aggregator will owe the Company 100% of the full contract payment and will be immediately removed from any future solicitations.

4) Technical Proposal

Please provide the information requested in the table below on the products, services, and activities you will undertake to meet the needs outlined in Section 3.

[7] MISO FERC Electric Tariff: https://www.misoenergy.org/legal/rules-manuals-and-agreements/tariff/

Technical proposals should address the information requested in Table 3 (below), with reference to the numbered item being addressed. Bidders may include additional items not listed in Table 3, if those are relevant to the bid.

Bidders are encouraged to provide clear, concise responses. In addition, bidders should feel free to reference earlier items for their responses if they feel the requested information has been provided in a prior item. Where appropriate, bidders should describe their past experiences and how their experience supports the bidder's ability to meet RFP requirements. Bidder's responses to each item in Table 3 will be used to inform Section 3 of the Statement of Work (SOW) (see Attachment A), if selected.

Table 2: Technical Proposal Requested Items

Item	Requested Information
1. *MISO MP Registration*	a. Describe the process for providing site-specific test event performance data to the Company (MISO-initiated, Company-initiated, or self-scheduled).
2. *Technology Provision*	a. Provide an overview of your proposed technology, associated hardware and software, and any technology-related services, and highlight unique elements of your proposal, including discussion of the following: i. Head-end (control) elements, key interfaces, databases, communication, monitoring, and associated technology to deliver load shed signal to the customers and end-use equipment, as applicable. ii. Devices that you may be using for control of load at customer premises (e.g., gateway devices, load control relays, building energy management control system (EMCS), etc.)
3. *Program Marketing and Customer Outreach*	a. Provide an overview of your program marketing and customer outreach approach, including discussion of the following: i. Customer engagement plan, including customer outreach, marketing, and retention strategies. ii. Specific customer segments that you plan to target. iii. Expectations, if any, for coordination with the Company's account managers.

Item	Requested Information
4. Customer Data Access and Enrollment	a. Describe the process for working with customers to access their data, including frequency, data types needed, etc. b. Describe the process for providing customer eligibility and enrollment information for the Company's review and validation, including steps for confirming the customer is not already enrolled in another DR program or tariff. c. Describe your experience with MISO's Demand Side Resource Interface (DSRI) and process for completion of customer enrollment in DSRI.
5. Event Notification	a. Describe the process for notifying customers of LMR-DR events (based on MISO event triggers).
6. Settlement	a. Describe the process for determining Customer Baseline Load (CBL) and for undertaking settlement calculations for LMR-DR, based on MISO requirements. b. Describe the process and timeline to provide performance and settlement calculation data to MISO.
7. Customer Incentive Payment	a. Describe the estimated timeline for incentive delivery to participating customers and any requirements from the Company related to incentive payment to customers. b. Provide a range for the percentage of total cost ($/kW per season as stated in Section 5) that will be passed through as an incentive to the customer.
8. EM&V	a. Confirm willingness to provide data and information required to support third-party EM&V, if the Company so chooses. b. Describe the MISO M&V methodology that the resource will be registered with (i.e., Calculated Baseline, Calculated Baseline with Symmetrical Multiplicative Adjustment, etc.).
9. Customer Satisfaction	a. Describe proposed procedures to ensure customer satisfaction and to measure and report results to the Company.

Item	Requested Information
10. Load Curtailment Assessment and Execution	a. Describe the process for site assessment and determining the amount of load reduction a customer can provide. b. Describe the approaches, processes, and equipment to be used to execute load curtailment at customer facilities. Mention any automated load response that may be employed. c. Describe the approach to ensuring consistent load reductions during the course of an entire event and from one event to another. d. Describe the practices for verification and testing to ensure end-to-end communication and full functionality.
11. Data Sharing and Security	a. Describe the types of information/data that will be exchanged with the Company and MISO, and how will this data be transferred in a secure manner (i.e., pulled, pushed on a time basis, or both). b. Describe data retention policies. c. Describe the QA/QC process for ensuring that your customer data is correct and valid. d. Describe in detail the system architecture and measures that provide end-to-end security and cyber-security and ensure against attacks to program-related systems and data. Include discussion of secure data transfer, communications, and in particular customer related information privacy and security. e. Describe the protections and recovery methods for dealing with unforeseeable events (e.g., acts of nature, computing resource failure, or security breaches) that may compromise vital customer or work management data.
12. End-of-Contract Terms	a. If you install DR-enabling technology (i.e., hardware or software) at customer sites, describe the technology and who owns that technology at the end of the contract period.
13. Additional Items	a. Describe any other roles and responsibilities expected from the Company that are not discussed in Table 2, if any.

5) Pricing Proposal

Bidders' pricing proposals should reflect firm, all-in pricing for a three-year contract term from MISO Planning Year (PY) 2025/26 through PY 2027/28. The Company will deliver payments by month based on a single price per season.

5.1 Summer-Only Pricing

All bidders must provide pricing for 25 MW of Summer DR over the three-year contract term in the table format below:

Table 3: Summer-Only Pricing Proposal Requested Items (Required)

Required Summer-Only DR (Pricing for 25 MW Summer DR)			
Contract Timeframe	**Period and Months**	**Quantity**	**Pricing ($/kW-season)**
PY 2025/2026	2025 Summer (Jun-Aug)	25 MW	
PY 2026/2027	2026 Summer (Jun-Aug)	25 MW	
PY 2027/2028	2027 Summer (Jun-Aug)	25 MW	

5.2 Summer-Plus Pricing (Optional)

Optionally, bidders may choose to provide additional "Summer-Plus" pricing, which includes summer plus any combination of other seasons (e.g., summer plus winter or summer plus fall and winter, etc.). Bidders who provide Summer-Plus pricing should include the following in Table 5 below:

- Pricing for 25 MW of Summer DR; and
- MW quantities and pricing for any combination of other seasons.

Table 4: Summer-Plus Pricing Proposal Requested Items (Optional)

Optional Summer-Plus DR (Pricing for 25 MW Summer DR and Quantity and Pricing for any combination of other seasons)			
Contract Timeframe	**Period and Months**	**Quantity**	**Pricing ($/kW-season)**
PY 2025/2026	2025 Summer (Jun-Aug)	25 MW	
	2025 Fall (Sept-Nov)		
	2025-2026 Winter (Dec-Feb)		
	2026 Spring (Mar-May)		
PY 2026/2027	2026 Summer (Jun-Aug)	25 MW	
	2026 Fall (Sept-Nov)		
	2026-2027 Winter (Dec-Feb)		
	2027 Spring (Mar-May)		
PY 2027/2028	2027 Summer (Jun-Aug)	25 MW	
	2027 Fall (Sept-Nov)		
	2027-2028 Winter (Dec-Feb)		
	2028 Spring (Mar-May)		

5.3 Proposal Exceptions

Proposals with no exceptions to the terms are preferred. If your Company takes any exceptions to the Company terms and conditions provided in Attachment E with this RFP, the exceptions must be specified in your proposal; you will not be allowed to specify exceptions after the proposal due date.

6) Bidder Information and Qualifications

In the tables below, please provide company information, relevant project experience, and references.

Table 5: General Company Information Request

General Company Info	
1. Bidder Name	Legal company name

General Company Info	
2. Address(es)	Include headquarters address as well as other relevant addresses for the Company (e.g., local offices in Michigan)
3. Description	Company description including company history
4. Contact	Name, address, telephone number, and email address of primary bidder contact authorized to represent company.

If you are including any subcontractor(s), provide the information in Table 6 for each subcontractor.

Table 6: Relevant Experience Information Request

Relevant Experience	
1. Similar C&I DR Experience	a. List C&I DR experiences and indicate the following: i. Utilities and ISO/RTO markets in which such service was provided, highlighting experience acting as a market participant and MISO-specific experience, if any. ii. Time period during which such service was provided. iii. MWs delivered. iv. Average realization rate (i.e., ratio of realized MW to procured MW), with any methodology descriptions necessary to contextualize the realization rate. b. Indicate any C&I customers within the Company's service territory that you have worked with in other jurisdictions and in what capacity.

Relevant Experience	
2. Team Organization, Roles, and Experience	a. Provide an organization chart illustrating key team members, including subcontractors. b. Explicitly identify and describe (separate from the organization chart) the roles and responsibilities of key team members who will be most responsible for coordinating and delivering services to the Company. c. Indicate relevant experience and years of relevant experience (i.e., similar C&I DR experience, as indicated in Table 6, item 1 above) of direct team members (at least one member).
3. Team Bios	a. In an appendix to your proposal, provide bios for the key team members identified in Table 6, item 2 above.

Table 7: References

References	
1. Contact Information and Summary	a. Provide a company name, contact name, phone number, and email address for **three contacts** that can be contacted about your relevant work for them. Indicate which utility and/or ISO/RTO C&I DR experience they are associated with from Table 6, item 1 above.

7) Bidder Instructions and Proposal Format

Proposals should provide a concise yet complete description of the bidder's approach, capabilities, and pricing for satisfying the required services outlined in this RFP. Bidders are required to prepare their proposal response according to the content described in the Bidder Checklist below. Specific bid instructions and requirements for the proposal format and content are as follows:

1. Proposals should contain, in proper order, all items listed and described in the Bidder Checklist below. Many of these items refer to more detailed questions or instructions contained in Sections 4, 5, and 6 of this RFP. The organizational structure (numbering system) of the questions/instructions in these sections must be used to describe the

proposed services. Bidders do not need to provide responses in the tabular format used in Sections 4 and 6, but the item number and letter should be clearly labeled to identify which question/information request is being addressed in the order the information is requested. Bidders are requested to respond to Section 5 in the tabular format specified.

2. Proposals must be prepared using 12 point Times New Roman or similar font with 1 inch margins on all sides. Illustrative tables or graphics may use alternative font styles and sizes.

3. The Company has not established specific page limits. However, **bidders are encouraged to be concise in their responses**, answering the questions directly and referencing supplemental materials in an appendix where necessary.

4. Additional materials that the bidder believes *will substantially improve the Company's understanding of the bidder's capabilities and/or proposal* may be submitted as appendices or attachments.

5. Bidders must respond to all items in the Bidder Checklist (Table 8), including all items in the Technical Proposal (Table 2), Bidder Information and Qualifications (Table 5, Table 6, and Table 7), and Pricing Proposal (Table 3), to meet the minimum RFP compliance criteria.

Table 8: Bidder Checklist

Item	Description
Exclusive Confidentiality Agreement	To be submitted prior to accessing this RFP (see Attachment B with this RFP).
Intent to Bid	Complete and submit Intent to Bid Form (see Attachment C with this RFP).
Proposal Document, including:	
Table of Contents	Identifies all major sections of the proposal and their starting page numbers.
Technical Proposal	Responds to all items in RFP Section 4 regarding your proposed technical solution.
Pricing Proposal	Provides pricing in the tabular format specified in RFP Section 5.
Bidder Information and Qualifications	Responds to all items in RFP Section 6 regarding your organization, experience, and references.

Bios of Key Team Members	In an appendix to your proposal, provide bios for key project team members listed in Table 6, item 2.
Attachments, including:	
Insurance Requirements	Sample COI (see Attachment D with this RFP).

8) RFP and Bid Procedures

This section of the RFP addresses procedures governing the submission of bids and the solicitation process.

8.1 RFP Schedule

The schedule for this solicitation, subject to change at the Company's sole discretion, is as follows:

Pre-RFP Meeting	June 6, 2024 (completed)
Pre-RFP Question Period Ends	June 13, 2024 (completed)
RFP Issued	June 26, 2024
Intent to Bid Due	July 2, 2024
RFP Question Period Ends	July 10, 2024
Bids Due	July 31, 2024
Interview Finalists	August/September 2024
Bidder Selection and Contracting	October 2024

The above schedule is subject to change at the discretion of the Company. Notification of changes may be sent by the Company to the individual designated as bidder's contact (in either the intent to bid or the proposal).

8.2 Intent to Bid

Intent to Bid forms must be received by **Noon (12:00 PM EST)** on **July 2, 2024**; Intent to Bid forms must be uploaded to the PowerAdvocate bid event platform. Failure to submit an Intent to Bid form may result in Respondent being deleted from the event website and excluded from the RFP.

Please include the following items in your Intent to Bid form provided as Attachment C with this RFP:

1. Contact information for the principal point of contact, including:
    a. Name

b. Title
c. Company name
d. Mailing address
e. Email address
f. Telephone number

Bidders providing an Intent to Bid form will receive follow-up communications from the Company regarding clarifications or changes to the RFP and the solicitation process.

Only those organizations explicitly invited by the Company are eligible to bid on this RFP. If your organization is interested in bidding but was not initially invited, you may contact the Buyer, Brian Smith, at email address Brian.J.Smith@dteenergy.com. Identify how you learned of the RFP, explain why you are interested in bidding, and provide a brief description of your experience and qualifications. At its sole discretion, the Company may allow additional bidders that were not initially invited to participate in this RFP.

8.3 Questions and Communications

Questions related to this RFP should be submitted in PowerAdvocate. The Company will provide responses to bidder questions in PowerAdvocate.

Bidders may contact the Buyer, Brian Smith, through PowerAdvocate with any questions. Bidders shall not contact any other Company employees or its contractors regarding this RFP throughout this RFP process. Any unauthorized contact may result in immediate disqualification.

RFP documents, responses to bidder questions, and other relevant material will be posted by the Company to the PowerAdvocate bid event platform.

8.4 Submission of Proposal Requirements

Bidders must submit an electronic version of their proposal by the due date and time listed below. Any proposals received after this date and time may be rejected. Proposals that do not contain the information requested in this RFP may also be rejected at the Company's sole and absolute discretion.

1. Deadline for Submission – Proposals must be received by **Noon (12:00 PM EST)** on **July 31, 2024**. A Proposal will not be considered unless it is submitted via the PowerAdvocate bid event platform. Any exceptions to the response date will be accepted at the Company's sole discretion. The Company reserves the right, in its sole discretion, to extend the RFP due date.

2. Proposal Submission – Bidders are required to submit an electronic copy of their proposal through PowerAdvocate.

3. Errors or Omissions – A bidder that discovers an error or omission in its proposal response package may withdraw that package and resubmit one, provided that it does so before the deadline for submission of proposal responses.

4. RFP Withdrawal – The Company reserves the sole and absolute right to withdraw this RFP at any time before the duly authorized execution of the contract/purchase order with bidders for any reason including, but not limited to, action by the Michigan Public Service Commission (MPSC).

8.6 Proposal Evaluation Criteria

Proposals will be reviewed and bidders selected for interviews and/or contract negotiations based on the following criteria:

- Pricing: 25 MW of Summer DR; other seasons may be evaluated
- Bidder Experience and Qualifications: Relevance of demonstrable experience providing similar service
- Technical Proposal Items: Quality and completeness of response to technical proposal items

The Company reserves the right to contact a bidder at any time for clarifications about any part of the bidder's proposal. Proposal review questions and communications will focus on clarifying the information set forth by the bidder in the proposals and will not be an opportunity for the bidder to revise terms.

8.7 Negotiations and Finalizations

Once the bidder(s) has been selected for the program, contract negotiations will be conducted. These negotiations will relate to the scope of work, budgets, schedules, and payment terms. The contractual terms will include general terms and conditions. The Company reserves the right to simultaneously conduct negotiations with both the prospective bidder and an alternate bidder. The Company also reserves the right to terminate negotiations with any bidder in the event that the Company and the bidder are unable to agree on contract terms and conditions within a reasonable period of time to be determined in the Company's sole and absolute discretion.

9) Additional RFP Terms

Carefully review the following terms that apply to this RFP. Receipt of an Intent to Bid form will be considered as an understanding and acceptance of the following terms:

9.1 Company RFP Disclaimer

This is not a contract offer by the Company; nothing in this RFP shall be construed as an offer or commitment by the Company and any response to this RFP does not bind the Company in any way. The Company reserves the right to discontinue or modify the RFP process at any time, and makes no commitments, implied or otherwise, that this process will result in a business transaction or negotiation with one or more Respondents. All costs incurred by a Respondent in preparing a response to this RFP and in providing or obtaining additional information to or from the Company shall be borne by the Respondent.

9.2 Company Right of Rejection / Acceptance

The Company reserves the right to reject any or all responses, to accept any response or to select any combination of responses. The Company reserves the right to waive any irregularity contained in any response, including a nonconforming bid.

9.3 Bidders Right of Withdrawal

Bidders may withdraw a Proposal at any time prior to the Proposal due date. Any request to withdraw a response must be sent via PowerAdvocate bid event platform.

9.4 Documents

The Company makes no representations or warranties regarding the accuracy or completeness of the information contained in this RFP, including the attachments, appendices, and exhibits. The Respondent is responsible for making its own evaluation of information and data contained in this RFP and in preparing and submitting Proposals in response to this RFP.

9.5 Confidentiality

All Proposals submitted in response to this RFP are the property of the Company upon submittal. The Company will take reasonable precautions and use reasonable efforts to maintain the confidentiality of all responses submitted and will disclose such responses to its agents, employees, or consultants who have a need to know as is necessary for that agent, employee, or consultant to perform his/her function relating to the Project. Further, information that is received in response to this RFP will be properly maintained in accordance with the Company's Code of Conduct which was issued pursuant to the October 29, 2001 Rehearing Order in MPSC Case No. U-12134. Respondents should clearly identify each page of information considered to be confidential or proprietary. Regardless of the confidentiality claimed, all such information may be subject to review by the appropriate state authority, or any other governmental authority

or judicial body with jurisdiction relating to these matters and may be subject to discovery. Under such circumstances, the Company will use reasonable efforts to protect Respondent's confidential information.

9.6 Proposal Validity

Proposals that are submitted must be valid for at least six (6) months after the Proposal due date.

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-2.5

Respondent: M. Leuker

Page: 1 of 1

Question: 5. Please identify the 14 aggregators DTE invited to bid as referenced in Mr. Leuker's testimony in response to Q82.

Answer:

- CPower Energy Management
- Enel X North America
- AEM-Alliance
- Generac Power Systems
- Uplight
- Enersponse
- Leap Energy
- Kraken Technologies
- Virtual Peaker
- NRG
- MEIBC
- Ecobee
- EnerNOC
- Voltus

Attachment: *None*

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-2.19a

Respondent: S. Rademacher

Page: 1 of 1

Question: 19. Will the DERMS that DTE seeks to implement (as described by DTE witness Rademacher beginning at page 94 of his testimony) be compatible with grid edge DERMS used by third-party aggregators?

a. Will further costs and/or time be necessary to enable participation by third-party aggregators?

Answer: The Company will not know if additional costs/and or time will be necessary to enable participation by third-party aggregators until such time as when requests to interface are made.

Attachment: *None*

MPSC Case No: U-21860

Requester: MEIU

Question No.: MEIUDE-2.19b

Respondent: S. Rademacher

Page: 1 of 1

Question: 19. Will the DERMS that DTE seeks to implement (as described by DTE witness Rademacher beginning at page 94 of his testimony) be compatible with grid edge DERMS used by third-party aggregators?

b. Will the DERMS interface DTE seeks to implement be open access?

Answer: Assuming open access means industry standard and interoperable protocols, the interfaces are expected to conform to those standards; for example, using a protocol such as Inter-Control Center Communication Protocol (ICCP).

Attachment: *None*

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

*****

In the matter of the Application of **DTE ELECTRIC COMPANY** for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority.	)))))))	**Case No. U-21860**

Direct Exhibit List of MEIU

Witness	Exhibit #	Exhibit Description
Sophia Schuster	MEIU-1.1	Résumé of Sophia Schuster, MBA, MSCM
Sophia Schuster	MEIU-1.2	Discovery Response MEIUDE-1.6d
Sophia Schuster	MEIU-1.3	Discovery Response MEIUDE-1.5a
Sophia Schuster	MEIU-1.4	Discovery Response MEIUDE-1.6a
Sophia Schuster	MEIU-1.5	Discovery Response MEIUDE-1.5b-01 Multi-Unit Dwelling ("MUD") Marketing Materials
Sophia Schuster	MEIU-1.6	Discovery Response MEIUDE-1.6b-01 Fleet Marketing Materials
Sophia Schuster	MEIU-1.7	Discovery Response MEIUDE-1.5c
Sophia Schuster	MEIU-1.8	Discovery Response MEIUDE-1.5d
Sophia Schuster	MEIU-1.9	Discovery Response MEIUDE-1.6e
Sophia Schuster	MEIU-1.10	Discovery Response MEIUDE-1.3a
Sophia Schuster	MEIU-1.11	Discovery Response MEIUDE-1.3d
Dr. Laura S. Sherman	MEIU-2.1	Résumé of Dr. Laura S. Sherman

Dr. Laura S. Sherman	MEIU-2.2	Discovery Response MEIUDE-2.11
Dr. Laura S. Sherman	MEIU-2.3	Discovery Response MEIUDE-2.12
John D. Albers	MEIU-3.1	Résumé of John Albers
John D. Albers	MEIU-3.2	Discovery Response MEIUDE-2.6 First Solicitation 25 MW RFP
John D. Albers	MEIU-3.3	Discovery Response MEIUDE-2.5
John D. Albers	MEIU-3.4	Discovery Response MEIUDE-2.19

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STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

*****

In the matter of the Application of DTE ELECTRIC COMPANY for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority.	)))))	**Case No. U-21860**

PROOF OF SERVICE

STATE OF MICHIGAN)
) ss.
COUNTY OF KENT)

Lydia M. Lubbers, the undersigned, being first duly sworn, deposes and says that she is a Legal Secretary at Varnum LLP and that on the Friday, August 22, 2025, she served a copy of the Direct Testimony and Exhibits of Sophia Schuster, Laura Sherman & John Albers and the Direct Exhibit List of MEIU on behalf of the Michigan Energy Innovation Business Council, the Institute for Energy Innovation and Advanced Energy United and this Proof of Service upon those individuals listed on the attached Service List via email at their last known addresses.

Lydia M. Lubbers

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